



UNIVERSITAT DE
BARCELONA

School-based Conditions and Teacher Education for CLIL Implementation

Laura Pons Seguí



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School-based Conditions and Teacher Education for CLIL Implementation

Faculty of Education

Doctoral Programme: Education and Society

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Barcelona, 2018

Doctoral thesis to apply for the European Doctorate from the University of Barcelona

Agraïments

Un llarg procés d'aprenentatge com és l'elaboració d'una tesi no l'hauria pogut fer tota sola, sense comptar amb el suport de tanta gent que forma part de la meua vida i a qui, possiblement, els alegra més que a mi mateixa que hagi transitat per aquest camí. Per això, aprofito per agrair a:

Els meus pares, na Victorina i en Bartolomé, per haver prioritzat l'educació de les meves germanes i la meua per damunt de tot, fent tots els esforços i sacrificis que fes falta perquè poguéssim tenir el que ells dos tant van anhelar de joves i no van poder tenir. A tu mami, et dono les gràcies per haver-me ensenyat el més important per a la vida, per sempre estar allà i per saber omplir un cor només amb una simple abraçada. T'estimo molt! A tu papi, moltes gràcies per ensenyar-me el gust d'aprendre pel simple plaer d'aprendre. Gràcies també per ensenyar-nos que mai és massa tard o s'és massa gran per aprendre. Tan de bo tu haguessis pogut comptar amb les mateixes oportunitats d'aprenentatge que tant t'has preocupat que nosaltres tinguéssim. A tu papi, també t'estimo molt.

En Ferran, per ser el meu company de viatge, fins i tot, quan el meu viatge condiciona el seu. Moltes gràcies per tot el suport, per tota la paciència que has tingut i per confiar més amb jo que el que jo faig amb mi mateixa. Aquesta tesi també hauria de portar el teu nom. Moltes gràcies per ser com ets i pel petit equip tan meravellós que formem.

Les meves germanes, na Vane i na Bego, per ser les millors germanes que es poden tenir. A tu Vane, per fer-me de germana i mare, per solucionar-me tots els problemes i contratemps i per posar-me sempre per davant teu. A tu Bego, gràcies per haver après a creure en tu mateixa i a saber que ets capaç d'aconseguir totes aquelles fites que et proposis. Gràcies per haver elegit el camí que volies seguir. Gràcies també al *Carlos* i al *Luiz* per fer felices a dues de les persones que més estim.

L'Encarna i l'Albert per haver-me acollit des del primer dia amb els braços oberts, per preocupar-se per mi i per oferir-me el calor de la llar quan trobo a faltar als meus pares i casa meua.

L'Elena per tot el que ens ensenyes i, sobretot, per tot el que fas per nosaltres, malgrat que això et comporti nits sense dormir i molts mals de caps. Gràcies per acompanyar-me i guiar-me durant la tesi i per totes les oportunitats que m'has donat. El resultat final d'aquesta tesi és fruit del teu guiatge i tot el que m'has ensenyat durant aquests anys. Gràcies per confiar tant en nosaltres i per treure el millor de cadascuna.

El *Vicenç* per la seva capacitat per veure i focalitzar-se en les coses bones, per la seva diplomàcia (encara que no sempre) i per tot el que fas per ajudar-nos. Moltes gràcies pel que ens ensenyes de la universitat i per compartir amb nosaltres tota la teva experiència. Agrair-te també que ens recordis que, al final, cal simplificar i veure les coses amb perspectiva. Gràcies per tots els bons moments que hem compartit.

Les becàries per tota la feina que hem fet juntes i el que hem après l'una de l'altra, i que espero que puguem seguir fent. Moltes gràcies per fer que treballar amb vosaltres deixi de ser treball! Moltes gràcies també als membres del grup *LMI* per l'aprenentatge i experiències ofertes durant aquests tres anys.

Tots els participants d'aquest estudi, tant els que han validat i pilotat qüestionaris i instruments de recollida d'informació, com els que s'han ofert voluntàriament a respondre qüestionaris i participar en entrevistes. Sense tots aquests participants, aquesta tesi no hauria estat possible. Voldria agrair especialment al grup del doble grau amb el que he implementat el disseny de formació. Agrair-los tot el que m'han ensenyat i, especialment, que hagin dedicat tant de temps a ajudar-me a fer la tesi, malgrat que això els suposés fer més feina.

Gràcies a tots els professors, becaris i personal administratiu del Departament de Didàctica i Organització Educativa.

A tots vosaltres, moltes gràcies!

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Abstract

Content and Language Integrated Learning (CLIL) is understood as an educational approach where some curricular content is taught integratively with an additional language to students participating in some form of mainstream education aiming at the acquisition of both content and the additional language. Although CLIL has been implemented around Europe and outside its borders, the main threat for CLIL is the lack of qualified teachers for CLIL implementation. For this reason, the general aim of this doctoral thesis is to identify the didactic-pedagogical and organisational training needs of teachers from Catalan Primary schools relative to CLIL implementation and the school-based organisational conditions that favour this implementation.

The post-positivist research paradigm is adopted to study the research aim. Additionally, a mixed-methods methodological approach is used; that is, quantitative and qualitative methods are applied. The perceptions of pre-service foreign language teachers (n=44), in-service teachers, teacher trainers (n=10), inspectors (n=5), CLIL Coordinators from the Educational Department (n=3), school management teams (n=54) and CLIL experts (n=10) towards teacher education and school-based conditions are studied. The data collection instruments used are close-ended questionnaires and semi-structured interviews. Quantitative and qualitative data procedures are applied to analyse the data. The revision of previous studies and the findings of this doctoral thesis are used to design, implement and evaluate an initial teacher education proposal for primary teachers to develop CLIL teachers' competences. This design was implemented in two courses of the double degree of infant and primary education of the University of Barcelona. The design was evaluated longitudinally using a quasi-experimental methodological design. A self-perceived competence level questionnaire was administered as a pre- and post-test to the experimental group (n=39) and two control groups, as well as students' performance was analysed.

The results of this study suggest that teachers and school management teams have considerable pedagogical and organisational training needs for CLIL implementation. However, the competences, requisites and type of training that should be offered are identified. Participants outline some of the school-based conditions for sustained CLIL implementation. The findings from the evaluation of the initial teacher education proposal indicate that competence-based approach and CLIL can be beneficial for pre-service teachers but it is necessary to sustain these practices for potential benefits to flourish. The findings outline some of the lines for future research.

Resum

L'Aprenentatge Integrat de Continguts i Llengua Estrangera (AICLE) és un enfocament educatiu on part del contingut curricular s'ensenya de forma integrada amb una llengua addicional amb l'objectiu d'adquirir tant el contingut com la llengua. Actualment, la major amenaça per AICLE és la falta de docents qualificats per a aquest enfocament. Per aquest motiu, l'objectiu general d'aquesta tesi doctoral és identificar les necessitats didàctico-pedagògiques i organitzatives dels docents de centres d'educació primària de Catalunya pel que fa a la implementació d'AICLE i a les condicions organitzatives que afavoreixen la seva implementació.

S'ha adoptat un paradigma post-positivista per estudiar l'objecte de recerca. A més, s'utilitza un enfocament metodològic mixte. S'estudia la percepció dels mestres de llengua estrangera en formació inicial (n=44), els docents en actiu, els formadors (n=10), inspectors (n=5), Coordinadors AICLE del Departament d'Ensenyament (n=3), els equips directius (n=54) i els experts AICLE (n=10) pel que fa a la formació docent i a les condicions institucionals. Els instruments de recollida d'informació utilitzats són qüestionaris i entrevistes semi-estructurades. S'han utilitzats procediments quantitatius i qualitius per analitzar les dades. La revisió d'estudis previs, així com les troballes d'aquesta recerca s'han utilitzat per dissenyar, implementar i avaluar una proposta de formació inicial per a estudiants de mestre d'educació primària amb l'objectiu de desenvolupar les competències AICLE. Aquest disseny s'ha implementat a dos cursos del doble itinerari d'educació infantil i educació primària de la Universitat de Barcelona. El disseny s'ha avaluat longitudinalment utilitzant un disseny metodològic quasi-experimental. S'ha administrat un qüestionari d'autopercepció del nivell competencial a mode de pre- i post-test als estudiants del grup experimental (n=39) i a dos grups control, alhora que s'ha analitzat el rendiment acadèmic de l'alumnat.

Els resultats d'aquest estudi suggereixen que els docents i els equips directius tenen necessitats de formació pedagògiques i organitzatives considerables per a la implementació d'AICLE. Tanmateix, s'han identificat les competències, els requisits i el tipus de formació que s'haurien d'oferir. Els participants han assenyalat algunes de les condicions institucionals que afavoreixen la implementació d'AICLE. Els resultats de l'avaluació del disseny de formació inicial indiquen que l'enfocament per competències i AICLE poden ser beneficiosos per a la formació de mestres. Ara bé, aquestes pràctiques s'han de sostenir en el temps per tal d'obtenir els beneficis.

Resumen

El Aprendizaje Integrado de Contenidos y Lengua Extranjera (AICLE) es un enfoque educativo en el que parte del contenido curricular se enseña a través de una lengua adicional de forma integrada con el objetivo de que aprendan tanto el contenido como la lengua. Actualmente, la mayor amenaza para AICLE es la falta de docentes cualificados para este enfoque. Por este motivo, el objetivo general de esta tesis doctoral es identificar las necesidades didáctico-pedagógicas y organizativas de los docentes de centros de educación primaria de Cataluña en relación a AICLE, así como identificar las condiciones institucionales que favorecen su implementación.

Se ha adoptado el paradigma post-positivista para analizar el objeto de estudio. Además, se ha usado un enfoque metodológico mixto. Se ha estudiado la percepción de los docentes de lengua extranjera en formación inicial (n=44), docentes en activo, formadores (n=10), inspectores de educación (n=5), coordinadores AICLE del Departamento de Educación (n=3), los equipos directivos (n=54) y los expertos AICLE (n=10) respecto a la formación docente y las condiciones institucionales. Se han utilizado cuestionarios y entrevistas semi-estructuradas para recoger los datos. Se han aplicado procedimientos cuantitativos y cualitativos para analizar los datos. También se ha diseñado, implementado y evaluado una propuesta de formación inicial para docentes de educación primaria con el fin de desarrollar las competencias docentes AICLE. El diseño se ha aplicado en dos cursos del doble grado de educación infantil y primaria de la Universidad de Barcelona. El diseño ha sido evaluado utilizando un diseño metodológico cuasi-experimental. Se ha administrado un cuestionario de autopercepción del nivel competencial a modo de pre- y post-test, al grupo experimental (n=39) y dos grupos control, y se ha procedido a un análisis del rendimiento académico del alumando.

Los resultados de este estudio sugieren que los docentes y los equipos directivos tienen importantes necesidades de formación pedagógicas y organizativas para la implementación de AICLE. Asimismo, se han identificado las competencias, requisitos y tipo de formación que se deberían ofrecer. Los participantes señalan algunas de las condiciones organizativas para la sostenibilidad de los proyectos AICLE. Los resultados de la evaluación de la propuesta de formación inicial diseñada indican que el enfoque por competencias y AICLE pueden ser beneficiosos para la formación de los docentes, pero es necesario que estas prácticas se sostengan para poder obtener estos beneficios.

INTRODUCTION

Chapter 1. Introduction

1.1. Research Context

1.1.1. *Language Education and Outcomes in Catalonia*

The doctoral thesis *School-Based Conditions and Teacher Education for CLIL Implementation* has been conducted in the Catalan Context. Catalonia is a Spanish Autonomous Community that has two co-official languages: Catalan and Spanish. Due to historical reasons, as well as its nature as a minority language, Catalan learning has been encouraged at the school level since the early 80s through immersion programmes (Lorenzo & Vives, 2013; Maldonado, Solé, Vidal, Aliaga, & Marí, 2009). Since the very beginning, immersion has had a twofold aim: on the one hand, Catalan is the language of instruction for everybody at non-university level and, on the other hand, students have to achieve the same level of competence both in Catalan and Spanish at the end of compulsory education (Age 16). Additionally, students have to achieve a B1 level, based on the *Common European Framework of Reference* (Council of Europe, 2001), in a foreign language at the end of basic education (LEC 12/2009, de 10 de juliol).

Catalan immersion programmes have proved to be successful since students acquire both languages and the results of Catalan students in international evaluations are similar, and even higher, than those of their Spanish counterparts (MECD, 2015). However, the immersion model has been facing different challenges. First, the arrival of students from over the world in the Catalan education system since the early 2000s (Maldonado et al., 2009). This arrival challenged the immersion programmes because evidence indicated that the educational system was not offering the sufficient support to newly-arrived students to achieve a similar Catalan and Spanish level as their native counterparts (PISA, 2012). Additionally, the evidence suggested that the final level of attainment of newly arrived students strongly depended on the amount of exposure to Catalan and Spanish languages outside of the school (Oller & Vila, 2011). Second, the information society and the globalised world, as well as the European recommendations (Council of Europe, 1995), demand the learning of other languages apart from Catalan and Spanish. Therefore, it has to be planned not only how a third language would be included in the curriculum, but also as a school language.

With regard to the second challenge, several strategies were planned, such as starting earlier English language learning (LOMCE 8/2013 de 9 de diciembre; Muñoz, 2007; Navés & Muñoz, 1999) or teaching curricular contents through an additional language (Lorenzo & Vives, 2013), also known as Content and Language Integrated Learning (CLIL). However, results repeatedly

Chapter 1. Introduction

show that Catalan students do not achieve the desired level of English proficiency (B1) at the end of compulsory education, although they have been learning this language for several years (Secretaria de Polítiques Educatives, 2013; Vilalta, 2016). Moreover, evidences suggest that less favoured students achieve a significantly lower mastery of the English language (Rodríguez, 2015). Therefore, education is not fulfilling its aim to compensate students' initial inequalities. Consequently, the use of different languages to teach the curricular contents has been proposed as a solution to increase students' plurilingual competence, as well as to increase the amount of exposure to the different languages (Secretaria de Polítiques Educatives, 2013). However, it is not the first time that plurilingualism is fostered by Catalan Educational Department. Indeed, the integration of content and a foreign language has been encouraged since the *Orator Project* (1999-2004) until the most recent *Plurilingual Generation Project* (2017-2020)(ENS/1363/2017 de 7 de juny) (Lorenzo & Vives, 2013). Namely, these programmes have been intended for primary and secondary education, although some calls were also intended for Vocational Education and Training (VET).

In Spain, three different scenarios for CLIL implementation can be found (Frigols-Martín, 2008): 1) the promotion of bilingualism in monolingual communities; 2) the promotion of multilingualism in bilingual communities; and 3) the development of a 'bilingual and bicultural project' between the Spanish government and the British Council. The context of this study, Catalonia, belongs to the second scenario. In this Spanish region, CLIL implementation at school level is an innovative project that schools autonomously decide to establish, although it is encouraged by the Catalan Education Department. However, this situation is different in other Spanish autonomous communities in which more regulations exist, such Galicia (Xunta de Galicia, 2011) or Andalusia (Junta de Andalucía, 2005). However, the degree of encouragement and the resources provided for CLIL have varied along the years (Lorenzo & Vives, 2013). Navés and Victori (2010) claimed that Catalonia is still far from having a sound CLIL policy and, thus, currently CLIL is the result of isolated experiences. In addition, in this context, CLIL research tends to be exploratory. Consequently, according to these scholars, evidence of effective programmes is still needed, because implementing CLIL programmes at any cost does not guarantee positive learning gains.

It has not been until recently that more studies have been conducted (Coral & Lleixà, 2016, 2017, Escobar, 2013, 2017b; Pladevall-Ballester, 2015; Pladevall-Ballester & Vallbona, 2016; Roquet & Pérez-Vidal, 2015; Soler, González-Davies, & Iñesta, 2017). Despite the studies conducted, there is still insufficient evidence on how CLIL projects are implemented and

sustained in the Catalan context. Additionally, the flexibility of how these projects are implemented makes difficult the generalisation of findings (Cenoz, Genesee, & Gorter, 2014; Dalton-Puffer, Llinares, Lorenzo, & Nikula, 2014).

1.1.2. Primary Education and CLIL Implementation

Even though the Spanish Educational system is decentralised, the Spanish government has the power on some educational issues, such as the organisation of the Educational System and teacher education (LOMCE 8/2013 de 9 de diciembre). Compulsory education in Spain encompasses primary (6-12 years old) and secondary education (12-16 years old) (see Figure 1). The aim of these two stages is to develop students' key competences so that they can become lifelong learners (LOMCE 8/2013 de 9 de diciembre). For this reason, a common core curriculum is offered. The Spanish educational system is graded since passing one grade enables the students to go to the next one (Eurydice, 2017b).

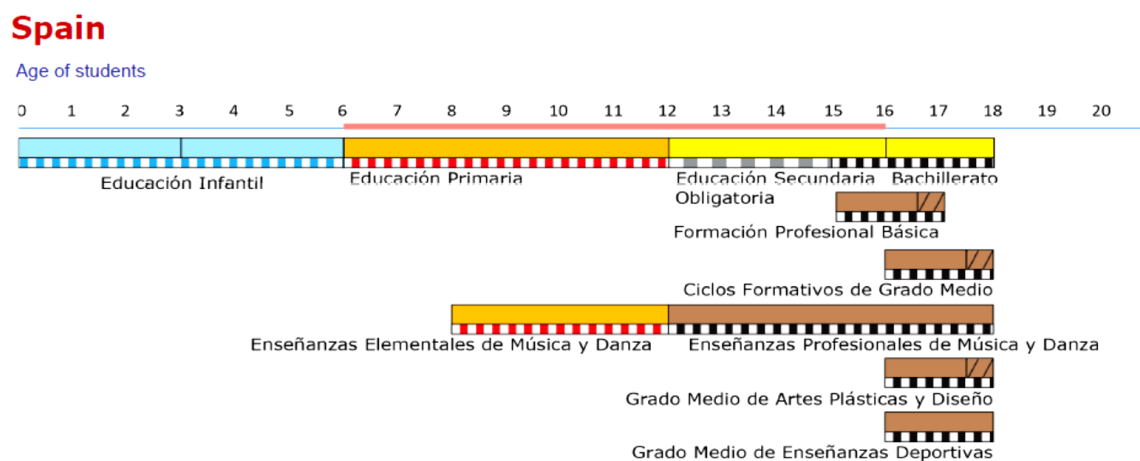


Figure 1. Structure of Spanish Educational System without tertiary level. Source: Eurydice (2017, p.16).

Primary education is the first compulsory stage, although most children tend to attend the second-cycle of infant education (3-6 years old). Primary education is divided in three cycles: initial (6-8), intermediate (8-10) and upper (10-12). To become an infant or primary education practitioner, teachers have to complete a 4-year degree in which they are trained as generalist during the first 3 years to later decide whether they will specialise in a curricular area during the 4th year. At the end of the degree, students are qualified to work as primary teachers. However, to become civil servants, they will have to pass a public examination. Teachers are trained as generalist because each teacher is the tutor of a group of students. That means that primary teachers are in charge of teaching all curricular subjects except those that are taught by a specialist, namely English, Music and Physical Education (LEC 12/2009, de 10 de juliol).

During the 4-years degree, in general, teacher students do not receive any specific training to integrate content and an additional language, except for a block or module within a course. However, some Catalan universities have included a pilot degree in which curricular contents are taught through an additional language (Escobar, 2018). Indeed, CLIL-specific training is only offered at postgraduate level or during ongoing development courses (Eurydice, 2017a). Normally, these courses are of a short duration (Eurydice, 2006). Those teachers participating in projects funded by the Catalan Education Department receive training to implement this integrative approach in their lessons. However, the type of training offered has varied considerably along the years due to the economic crisis (Lorenzo & Vives, 2013). Additionally, there has been a move from face-to-face training towards online or blended courses.

1.2. Justification of the Research Topic and Problem Statement

Within the framework of this doctoral thesis, Content and Language Integrated Learning (CLIL) is understood as an educational approach where some curricular content is taught integratively with an additional language to students participating in some form of mainstream education aiming at the acquisition of both content and the additional language (definition adapted from Dalton-Puffer, 2011; Hüttner & Smit, 2014). CLIL has been encouraged and implemented with the belief that it will allow students to become competent in an additional language, as well as to improve traditional foreign language teaching (Dalton-Puffer, 2011; Marsh, 2013).

Since CLIL appearance in 1995, CLIL has spread along Europe and outside its borders due to high-level policies and individual initiatives (Dalton-Puffer, 2011; Ruiz de Zarobe, 2013). However, the perceptions towards CLIL have gone from an optimistic view to a more pessimistic one that points the current challenges and difficulties to achieve both content and language learning (Pérez-Cañado, 2016b). Probably, the root of the problem is that it was taken for granted that the mere implementation of CLIL would lead to gains in terms of students' learning (Meyer, 2010). To this, it has to be added that, due to the novelty of the approach, there were insufficient research evidences (Cenoz et al., 2014; Dalton-Puffer, 2011; Pérez-Cañado, 2012). In addition, the available studies sometimes shed some inconclusive findings (Nikula, Dalton-Puffer, & Llinares, 2013). Altogether, this situation led to a pessimistic view of CLIL which was reinforced by CLIL detractors, who questioned the potential benefits of CLIL (Bruton, 2011a; Paran, 2013). However, sound research evidence is still lacking to support both advocators and detractors' claims.

Whenever a new method, practice, or protocol surfaces in education, there is a common tendency to spread it too far and too fast, with little thought as to what else may be needed for the particular model or design to be effective (Hargreaves & O'Connor, 2017, p. 11).

All this controversy occurs alongside school-based CLIL implementation encouraged by educational administrations, as well as the insufficient reflection on the necessary conditions to implement CLIL at all levels. Therefore, apparently, CLIL research and scholars are facing two main challenges: first, researching all the aspects that CLIL implies (students' language and content learning, teacher education, CLIL implementation, teachers' pedagogical practices...) in order to have enough evidence to affirm whether CLIL works or not and under what conditions. Consequently, CLIL research needs to analyse the results considering the contextual variables that may affect the findings (Cenoz et al., 2014; Nikula et al., 2013). Second, not only research findings have to be transferred to the educational community, but also research has to be conducted together with educational stakeholders so that CLIL realisation is the result of evidence-based decisions.

CLIL research has gone through three different stages. At the beginning, most research focused on students' language learning outcomes (Pérez-Cañado, 2016a). Even though research on language outcomes still prevails, in a second stage, CLIL studies have also focused on students and teachers' perceptions, beliefs, needs and attitudes towards CLIL (Dalton-Puffer, 2017). The third research stage is characterised by more studies investigating what happens in the classroom. This analysis goes from teachers' pedagogy (Koopman, Skeet, & de Graaff, 2014) to classroom discourse (Nikula et al., 2013). Nevertheless, during all these stages content learning has been neglected at the expenses of a strong focus on language learning since CLIL has tended to be seen as language learning approach (Dalton-Puffer & Smit, 2013).

Despite the available evidences, findings cannot be always generalised because CLIL has been understood as an umbrella term (Coyle, Hood, & Marsh, 2010). Consequently, different approaches can be found under the CLIL approach. Therefore, it is difficult to transfer research findings from one context to another (Cenoz et al., 2014; Nikula et al., 2013; Pérez-Cañado, 2012; Sylvén, 2013). Additionally, not only are there differences between countries in terms of how CLIL is implemented, teacher education and teacher requirements for CLIL, but also within countries (Eurydice, 2017a). This variance is also a consequence of the educational and language background differences of each country (Pérez-Cañado, 2012).

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Previous CLIL state-of-the-art studies have identified seven areas where CLIL research should focused on:

1. *CLIL Learning Outcomes.* According to some scholars, it is necessary to establish what the effect of CLIL is on language learning, content acquisition, the learning process, as well as the language gains in CLIL in comparison to traditional foreign language teaching and learning (Cenoz et al., 2014; Dalton-Puffer, 2011; Dalton-Puffer & Smit, 2013; Pérez-Cañado, 2012, 2016).
2. *Understanding of Integration.* In order to evaluate CLIL results, it is necessary to explore how the different stakeholders involved in CLIL understand integration and CLIL (Cenoz et al., 2014; Dalton-Puffer, 2011; Dalton-Puffer & Smit, 2013).
3. *The role of language learning in content learning.* It should be further explored how content-specific language is worked in CLIL settings. According to Dalton-Puffer (2011), it should be offered a learning theory to understand content and language learning as a single process.
4. *CLIL teacher education.* Not only needs to be further studied who the CLIL teacher should be, but also what type of training teachers should receive in order to teach in CLIL settings (Dalton-Puffer, 2011).
5. *CLIL Pedagogy.* It should be explored whether teachers' practices differ from a CLIL to a non-CLIL setting. If so, it should be identified what characterises CLIL pedagogy (Dalton-Puffer & Smit, 2013).
6. *Teacher training needs.* Related to the two previous points, CLIL research should identify what the training needs of CLIL stakeholders are (Pérez-Cañado, 2012, 2016b).
7. *Stakeholders' perceptions, beliefs and attitudes.* CLIL research should study what stakeholders' perceptions, beliefs and attitudes are toward CLIL realisation (Dalton-Puffer & Smit, 2013; Pérez-Cañado, 2012, 2016).

According to the last report on *Key Data on Teaching Language at School in Europe* (Eurydice, 2017a), the main threat for CLIL implementation and sustainability is teacher qualification. Even though research on teachers' needs for CLIL has been conducted in Spain (Pérez-Cañado, 2012), it has tended to be focused on in-service teachers who have received limited training for CLIL (Cabezuelo Gutierrez & Fernández Fernández, 2014; Pavón Vázquez & Rubio Alcalá, 2010; Pena Díaz, Fernández Fernández, García Gómez, & Halbach, 2005; Pérez-Cañado, 2016c). Due to teacher's impact on students' learning (Darling-Hammond & Bransford, 2005; Hattie, 2012) and the fact that research agendas have stressed the need of research on teacher education and

teachers' training needs, **this doctoral thesis aims to contribute to this area by analysing stakeholders' perceptions towards Catalan teachers' training needs and education for CLIL implementation.** Therefore, this PhD addresses points 4 (CLIL teacher education), 6 (teacher training needs) and 7 (stakeholders' perceptions) of the research agenda established for CLIL.

Although teacher qualification is identified as a key condition for CLIL sustainability (Eurydice, 2017a), most research has focused on CLIL learning outcomes or CLIL implementation in the classroom. There is a general belief that CLIL is easier to implement at primary levels because of the generalist nature of primary teachers' training. However, there is no much evidence on how CLIL is implemented at primary level in Catalonia and what teachers' needs are. On the one hand, research in the Catalan context has tended to focus on students' language and content learning (Coral et al., 2017; Coral, Lleixà, & Ventura, 2016; Navés & Victori, 2010; Pérez-Vidal & Roquet, 2015; Pladevall-Ballester & Vallbona, 2016; Roquet & Pérez-Vidal, 2015), although CLIL teacher education (Coral & Lleixà, 2017; Escobar, 2010, 2013, 2017b) and CLIL teaching and learning (Coral & Lleixà, 2016; Maldonado & Olivares, 2013) have also been studied. On the other hand, there is a shortage of evidence coming from Catalan Education Department that synthesises students' learning in CLIL contexts, how CLIL is implemented and sustained over time, the results of teacher education for CLIL, as well as the main challenges for CLIL in Catalonia. For this reason, this doctoral thesis aims **to identify the didactic-pedagogical and organisational training needs of teachers from Catalan Primary schools relative to CLIL implementation and the school's organisational conditions that favour this implementation.**

There is scarce evidence on why schools decide to start a CLIL project and how this project is implemented and sustained over time. Indeed, CLIL implementation has been approached from a theoretical perspective (Genesee & Hamayan, 2016; Mehisto & Genesee, 2015). However, the studies that analysed CLIL implementation stress the difficulties schools face (Mehisto, 2008), specially school management teams who tend to manage the project on trial and error (Doiz & Lasagabaster, 2017; Laorden & Peñafiel, 2010). Knowing what conditions are needed to start a CLIL project is essential to make informed decisions before deciding to implement CLIL and during the process to ensure CLIL sustainability and institutionalisation (Soler et al., 2017). For this reason, **this study also aims to identify the school-based conditions that favour CLIL implementation according to the stakeholders consulted. Additionally, school leaders' needs and training for CLIL will also be explored.**

In short, this doctoral thesis aims to contribute to CLIL research field by identifying the school-based conditions that favour CLIL implementation, as well as teacher and school management

Chapter 1. Introduction

teams' training needs and education for CLIL. For all previously presented, this study is convenient, appropriate and relevant.

This study is **convenient** because, after a long CLIL trajectory in Catalonia (Lorenzo & Vives, 2013), it is necessary to know what the current situation in terms of CLIL implementation and teacher education is. Additionally, this study is convenient because CLIL is context-embedded. Therefore, having evidences on CLIL's current situation can provide information to orientate future educational policies, as well as teacher education for CLIL. Above all, however, this study is convenient because it intends to overcome the classroom perspective adopted by previous research and move on a school perspective so as to insist on the organisational dimension of school-based CLIL implementation.

In the same line, this study is **appropriate** because CLIL is being encouraged by the Educational Department as a solution to improve students' foreign language proficiency without having enough evidence on how CLIL is working in Catalonia (Navés & Victori, 2010; Soler et al., 2017). Even though this PhD is not focused on students' learning, this study analyses some of the factors that have a major impact on students' learning: teachers, leadership and school organisation (European Commission, 2012b; Hattie, 2003, 2012). Therefore, studying school-based conditions for CLIL implementation and teacher education can orientate teacher training and educational policies to give direct help and support to the work of teachers (Black & Wiliam, 1998).

Finally, this PhD is **relevant** because it addresses three of the seven lines of research established by previous CLIL research agendas: CLIL teacher education, teacher training needs and stakeholders' perceptions. As Dalton-Puffer and Smit (2013) note, previous research has focused on teachers' perceptions. However, this study compares teachers' perceptions with those of school management teams, teacher trainers, inspectors, CLIL coordinators from the Educational Department and CLIL experts. Additionally, this study focuses on one aspect that has received scarce attention: School-based CLIL implementation. Therefore, knowing the opinion of different stakeholders about CLIL implementation and teacher education will help to better articulate teacher education and to support school-based CLIL implementation. Besides all this relevant aspects, this study presents an initial teacher education proposal for CLIL teachers based on the identified needs and key competences for CLIL teachers. This design is piloted and evaluated. Thus, the results of this study can indicate how initial teacher education can contribute to CLIL teaching and learning.

1.3. Objectives and Hypotheses

This doctoral thesis is contextualised in Catalan primary education. More specifically, the focus of the study is primary teachers' education and school-based conditions for primary schools to implement and sustain CLIL projects.

The general aim of this study is **to identify the didactic-pedagogical and organisational training needs of teachers from Catalan Primary schools relative to CLIL implementation and the school's organisational conditions that favour this implementation**. This general objective is specified with the following specific objectives (SO):

SO1: To explore Catalan teachers and school management teams' perceived pedagogical and organisational training needs.

SO2: To know the competences and training requisites of CLIL teachers and school management teams.

SO3: To identify the organisational conditions of primary schools which favour the implementation and sustainability of CLIL projects.

SO4: To analyse the concurrence between teachers and school management teams' perceptions with the inspectors, CLIL coordinators from the Education Department and CLIL experts' opinions.

SO5: To design, implement and evaluate an initial CLIL teacher education proposal for primary teachers from the competences and training requisites identified.

Table 1 summarises the relationship between the general objective, the specific objectives (SO) and the hypotheses (H). These hypotheses emerge from the theoretical framework that will be presented in chapters 2 to 4. However, the hypotheses are included in this table in order to present the thesis. Note that the specific objective 4 is cross-curricular; that is, the agreement between participants' opinion is analysed through the specific objectives 1 to 3.

Table 1. *Relationship between the general aim and the specific objectives and hypotheses.*

General objective:			
To identify the didactic-pedagogical and organisational training needs of teachers from Catalan Primary schools relative to CLIL implementation and the school's organisational conditions that favour this implementation.			
Block	Cross-curricular objective	Specific Objectives	Hypotheses
Non-Experimental studies	SO4: To analyse the concurrence between teachers and school management teams' perceptions with the inspectors, CLIL coordinators from the Education Department and CLIL experts' opinions.	SO1: To explore Catalan teachers and school management teams' perceived pedagogical and organisational training needs.	H1: CLIL teachers' profile varies depending on CLIL conceptualisation and the context.
			H2: Teachers and school management teams perceive that they do not have enough pedagogical CLIL training to confront the demands of this approach.
			H3: Teachers and school management teams believe that they do not have enough organisational training to implement CLIL projects.
		H9: Teachers and school management teams concur in the key competences and knowledge for CLIL, but their perceptions in terms of current training needs vary.	SO2: To know the competences and training requisites of CLIL teachers and school management teams.	H4: Language knowledge, content knowledge and methodological competence are considered essential requisites for CLIL teachers and, consequently, training has to address these requisites.
	H5: Leadership is considered a key competence of school management teams for CLIL implementation.		
	SO3: To identify the organisational conditions of primary schools which favour the implementation and sustainability of CLIL projects.		H6: The most effective training modality for CLIL is that one that addresses teachers' training needs depending on the characteristics of the context.
			H7: The reason why primary schools decide to start a CLIL project and how CLIL is conceptualised determine how CLIL is implemented.
			H8: CLIL implementation and sustainability require some organisational conditions being teacher collaboration one of the most prominent and the shortage of qualified teachers for CLIL, its main barrier.
Quasi- Experimental Study		SO5: To design, implement and evaluate an initial CLIL teacher education proposal for primary teachers from the competences and training requisites identified.	H10: The design and the implementation of a competence-based training proposal for CLIL teaching and learning and CLIL implementation have a positive impact on the development of student teachers' CLIL competences.

1.4. Participants

Several stakeholders are involved in this study so as to have a deep understanding of CLIL teacher education and conditions for school-based CLIL implementation. The perceptions of pre-service and in-service teachers are analysed in order to know what people in charge of CLIL teaching and learning think about the training they have received and what training would enable them to improve their practice. Pre-service teachers are primary and secondary foreign language teachers since they tend to be the ones in charge of carrying out CLIL in the classroom or, at least, to coordinate CLIL teachers. In-service teachers' profile varies in terms of experience in CLIL settings. The comparison between pre-service and in-service teachers with and without experience in CLIL teaching and learning will provide a general understanding on how teacher training for CLIL should evolve depending on teachers' career stage.

Pre-service and in-services voices are contrasted with those of teacher trainers, Inspectors and CLIL Coordinators from Catalan Educational Department. It is believed that people in charge of training, monitoring and providing support to schools implementing a CLIL project will have a comprehensive understanding of the current CLIL challenges teachers are facing. Additionally, this group of stakeholders can have a better insight into Catalan Educational Department strategy for CLIL in primary schools. Pre-service voices are also compared with those of the school management teams. Due to their role, school leaders tend to have an overall picture and understanding of their school. Thus, knowing their opinion about teacher qualification for CLIL can help to triangulate the data. Additionally, school management teams can provide valuable information about why and how CLIL was implemented in their schools, as well as their needs and difficulties to implement and monitor the project.

The data obtained through all the aforementioned stakeholders is discussed with a group of CLIL experts from the Spanish context. CLIL experts can provide some clues in order to understand the opinions of the other stakeholders. Moreover, they can complement the view of the other stakeholders due to their vast knowledge on CLIL. This group of experts are from different Spanish regions and their CLIL expertise is either on teacher education or language teaching and learning. The heterogeneity of this group may contribute to identify what the current strengths and challenges of CLIL teacher education and implementation are around Spain. In short, it is expected that the perceptions of the different stakeholders help to understand the current situation of CLIL in Spain and, more specifically, in Catalonia.

The information provided by all the aforementioned stakeholders will be used to address specific objectives 1 to 4. However, for specific objective 5, the participants will be student

teachers enrolled in the double degree of infant and primary education from the University of Barcelona, as well as some pre-service primary teacher that will participate as a control group. The implementation of the designed training proposal with pre-service teachers will allow to evaluate the effects of the competence-based approach on the development of CLIL teachers' competences in initial teacher education. In addition, piloting this experience will allow to know the effects of teaching curricular contents in English with teacher students.

1.5. Methodological Approach and Design

This PhD dissertation is framed within the post-positivist research paradigm. The post-positivist paradigm is understood as a revision of some of the characteristics and principles of the positivist paradigm (Guba & Lincoln, 1994). The post-positivist paradigm is based on prescriptive principles, rules and maxims (Bolívar, 2002; Guba & Lincoln, 1985). This doctoral thesis is framed within this paradigm because the aim of this study is to explain the object of study and to contribute to CLIL's field of knowledge. A mixed methodological design is used to address the research aim. That is, quantitative and qualitative methods are used alike (Hernández-Sampieri, Fernández-Collado, & Baptista-Lucio, 2006). A mixed methodological design is selected in order to analyse the frequency and significance of teachers' training needs and organisational conditions (quantitative methodology), as well as to comprehend these needs and conditions (qualitative methodology) (Figure 2).

Initially, this doctoral thesis was aimed to be done by compendium of articles. However, the lag between editorial processes and the three-year time to submit the PhD thesis when the candidate is a full-time student prevented that the necessary number of accepted or published articles was achieved within this time. Consequently, it was decided to present the thesis in the traditional format. Nevertheless, since the research was designed to be done by compendium, the methodological description and the results sections will be organised in studies, which are grouped depending on their nature (non-experimental or experimental studies).

Participants' perceptions are analysed through close-ended questionnaires and semi-structured interviews. A narrative review is conducted to explore in-service teachers' training needs. The opinions of pre- and in-service teachers, teacher trainers, CLIL coordinators and Inspectors are contrasted with CLIL experts' opinions through a semi-structured interview. Finally, the design and implementation of a proposal for initial teacher education is evaluated through a self-perception of competence level questionnaire, students' marks and assignments.

School-based Conditions and Teacher Education for CLIL Implementation

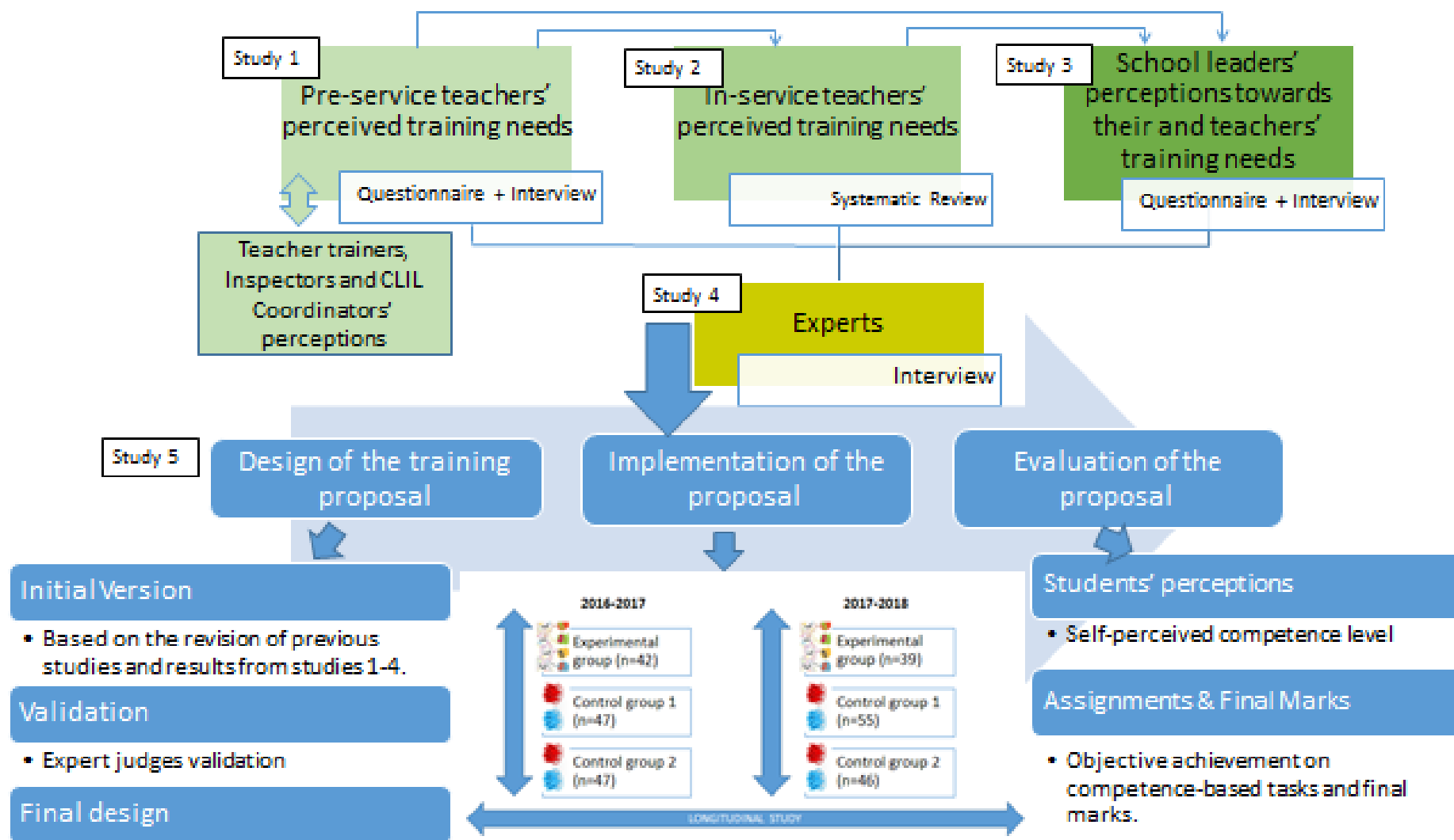


Figure 2. Graphic representation of the methodological design of the doctoral thesis.

1.6. Structure of the Doctoral Thesis

This doctoral thesis is structured in such a way that the methodology and results from the fifth study will be presented separately to those of the four first studies. This structure has been selected due to the nature and characteristics of each study. Thus, non-experimental studies (studies 1-4), which are focused on teacher education and school-based conditions (block I), will be presented first. Then, the design, methodology and results of the quasi-experimental study (study 5) will be presented (block II). Therefore, the structure of the doctoral thesis is as follows:

Introduction (Chapter 1). It is described the context of this doctoral thesis, it is justified its relevance and it is explained the structure of the thesis and its methodological design.

Theoretical Framework (Chapters 2 – 4). Previous studies are reviewed in these three chapters: chapter 2 focuses on CLIL characterisation, chapter 3 on school-based conditions and chapter 4 on teacher education.

Methodology (Chapter 5). The paradigm, the methodological approach and design are described in this chapter. Additionally, all the processes followed to collect and analysed the data are detailed. This chapter is divided in two blocks. The first block includes the methodology of non-experimental studies, whereas block II describes the design, implementation and evaluation of an initial teacher education training proposal

Results (Chapters 6-7). The findings obtained through the analysis of the data are presented in two different chapters. Chapter 6 includes the findings of non-experimental studies. The results of each study are presented in isolation since they will be compared in the discussion. Chapter 7 includes the results of the experimental study.

Discussion (Chapter 8). The results obtained are compared and discussed with previous research. The chapter finishes with some final remarks, limitations and lines for future research.

The structure proposed is aligned to the traditional format of scientific reports, although the initial idea was to present this doctoral thesis by compendium of articles. It has been intended to ensure the coherence between the different chapters at the same time that the studies have been organised depending on their nature.

THEORETICAL FRAMEWORK

Chapter 2. CLIL Conceptualisation, Contextualisation and Characterisation

The purpose of this chapter is to frame Content and Language Integrated Learning (CLIL) in relation to other concepts and its context, as well as to detail the implications of CLIL for the teaching practice. The conceptualisation, contextualisation and characterisation of CLIL intend to serve as a baseline to justify the perspective adopted to analyse the school-based conditions and teacher education for CLIL implementation at primary level.

With this purpose in mind, in this chapter, it is revised how CLIL has been conceptualised along the years and, more specifically, how this approach is defined in the framework of this doctoral thesis. Additionally, the emergence of this approach and the reasons for its appearance are going to be discussed from a general perspective, Europe, and from a specific context, Catalonia. After conceptualising and contextualising CLIL, its characteristics will be revised. CLIL characteristics will be described from the theoretical underpinnings that sustain this approach (learning, second language acquisition and curriculum theories), as well as the pedagogical practices and methodological strategies that should characterise CLIL realisation in the classroom. Finally, the chapter will end with a revision of some CLIL research findings.

2.1. CLIL Conceptualisation

2.1.1. Definition

The concept Content and Language Integrated Learning (CLIL) was first coined in 1994, even though it was not until 1996 that the term was formally launched by the European Commission (Marsh & Frigols-Martín, 2012). CLIL did not refer to a new educational approach (Mehisto, Marsh, & Frigols-Martín, 2008), but encouraged the teaching and learning of content and an additional language¹ integratively. At the beginning, CLIL was defined as a situation in which subjects, or some content subjects, were taught through a foreign language with dual-focused aims, namely the content learning and the simultaneous learning of a foreign language (Marsh, 1994). The aim was not to teach the foreign language explicitly but through a content subject in an integrated manner. It was believed that this focus would create the perfect conditions for language learning (Marsh, 2002).

¹ Additional language is understood here as any other language that is not the users' L1/ mother tongue.

Language is defined as the mediating tool through which content and language are acquired (Moate, 2010). *Content* is defined as the material pupils have to learn that traditionally has been taught outside the foreign language lessons (Met, 1998). *Integration* is the coordination and combination of two or more things in order to become more effective (Ruiz de Zarobe & Cenoz, 2015a). In this particular context, integration is the fusion of two or more curricular subjects (language and non-language subjects), understanding the interplay of both, as well as the potential aims, processes and outcomes of the fusion (De Graaff, 2016).

The quick widespread of CLIL along countries and the fact that CLIL implementation has often been the result of individual initiatives (Ruiz de Zarobe, 2013) have had as a consequence that the term CLIL has been used to describe different realities (Cenoz et al., 2014). A range of CLIL provision models have been implemented. These models not only vary across countries, but within countries and regions (Eurydice, 2006). Consequently, CLIL cannot be used as a concept that strictly differentiates a specific type of bilingual provision from others because **CLIL has become an ‘umbrella term’**; that is, a term that encompasses all types of content teaching provision through an additional language.

Content and Language Integrated Learning is a generic term and refers to any educational situation in which an additional language and therefore not the most widely used language of the environment is used for the teaching and learning of subjects other than the language itself. (Marsh & Langé, 2000, p. iii)

CLIL refers to all those situations where there is a connection between a foreign language used as a medium of instruction and a content taught, including immersion and some forms of bilingual education. (Jäppinen, 2005, p. 149)

CLIL is a generic term to describe all types of provision in which a second language (a foreign, regional or minority language and/or another official state language) is used to teach certain subjects in the curriculum other than language lessons themselves. (Eurydice, 2006, p. 368)

CLIL is an umbrella term covering a dozen or more educational approaches (e.g. Immersion, bilingual education, multilingual education, language showers and enriched language programmes). What is new about CLIL is that it synthesizes and provides a flexible way of applying the knowledge learnt from these various approaches. (Mehisto et al., 2008, p. 12).

CLIL is a dual-focused educational approach in which an additional language is used for the learning and teaching of both content and language (Coyle et al., 2010, p. 1).

CLIL is “a dual-focused instruction, referenced to two separate programmes of learning, typically the Foreign Language (FL) curriculum and a subject syllabus.” (Kiely, 2011, p. 154)

CLIL is “an approach in which various methodologies are used to achieve a dual-focused form of instruction in language and content.” (Banegas, 2012, p. 117)

“CLIL can be described as an ‘educational approach where [some] curricular content is [additionally] taught through the medium of a foreign language [which is often also taught as a subject itself], typically to students participating in some form of mainstream education at the primary, secondary, or tertiary level” (Hüttner & Smit, 2014, p.164, adapted from Dalton-Puffer, 2011).

“It [CLIL] is commonly perceived as a flexible operational framework for language instruction, with heterogeneity of prototypical models and application options available for different contexts and pedagogical needs.” (Pérez-Cañado, 2016c, p. 2).

The above definitions show some of the different ways in which CLIL has been understood (Table 2). As Ting (2010) states, CLIL is understood either as a) a group of instructional techniques; b) a curricular design; and c) the combination of theoretical foundations of constructivism and second language acquisition. According to Cenoz, Genesee and Gorter (2014), CLIL is understood either as instructional techniques and practices, in curricular terms or as the interplay of the theoretical foundations of constructivism and L2 acquisition.

Table 2. *Classification of the different CLIL definitions.*

CLIL DEFINED AS...	REFERRED BY...	CHARACTERISED BY...
Methodology	Kiely, 2011; Pérez-Cañado, 2016. Banegas, 2012	Focus on the instructional skills to teach a foreign language.
Educational Approach	Coyle et al., 2010; Hüttner & Smit, 2014	Focus on both content and language learning
Umbrella Term	Jäppinen, 2005; Eurydice, 2006; Marsh & Langé, 2000; Mehisto et al., 2008	Focus on either content or language learning.

Source: Own Elaboration

Tracing the development of CLIL’s concept, it moved from being a compendium of methodologies, to being an educational approach for the teaching and learning of foreign languages and, finally, an umbrella term. Understanding CLIL as an umbrella term leads to equal the term CLIL to *Bilingual Education* provided that Bilingual Education is understood as education in more than one language (Garcia, 2009) that aims to promote bilingual competence by using both (or all) languages as media of instruction (Genesee, 2004). However, according to Ball and Lindsay (2010), **the lack of an agreement in defining CLIL has two problems**: firstly, knowing what constitutes CLIL and, secondly, developing appropriate training courses for CLIL practitioners. Additionally, different CLIL definitions lead to different classroom practices. In

sum, “without a common understanding of CLIL, there can be no coherent evolution”(Cenoz et al., 2014, p.244).

Despite the variety of CLIL definitions, **three main aspects can be generalised** from them (Mehisto et al., 2008; Wolff, 2007): a) Content and language are learnt in integration; b) CLIL is concerned both with content and language; and c) language is both the tool to access the content and the content to be learnt. Dalton-Puffer et al. (2014) establish three other principles that are characteristic of current CLIL: a) CLIL languages are basically major and minor lingua franca; b) CLIL happens alongside foreign language lessons and c) CLIL is timetabled as a content lesson. To this, Dalton-Puffer (2011) adds that a) the main language of instruction is English; b) teachers tend to be non-native of the target language; c) In CLIL, less than 50% of the curriculum is taught in the target language and d) CLIL tends to occur once the students have acquired a certain competence in their L1. However, almost all of the characteristics depicted to define CLIL tend to be contextual rather than inherent to this approach. Therefore, **Integration** appears to be CLIL’s hallmark; that is, **CLIL provision should equally focus on content and language and refer to both language and content curriculum** (Coyle et al., 2010). Therefore, the distinctiveness of CLIL, among other bilingual education approaches, appears to be the integration of content and language (Coyle, 2007; Llinares, 2015). The core idea behind **integration** is that languages are not learnt first and then used, but they are learnt while used (Cenoz, 2015; Genesee & Lindholm-Leary, 2013; Marsh & Langé, 2000).

To this variety of CLIL definitions and understandings, it has also been included the idea of the existence of **Hard and Soft CLIL** (Ball, Kelly, & Clegg, 2015; Paran, 2013). *Hard CLIL* is when content subjects are taught through an additional language, but the aim is in content acquisition and language teaching may not be involved. On the contrary, *Soft CLIL* occurs when content from other subjects is used for foreign language teaching and learning purposes. Therefore, the aim is on language acquisition. This would be the typical case of traditional foreign language teaching. Even though some authors have defended the idea of Hard and Soft CLIL, these two options can be doubtfully regarded as CLIL. If the key feature of CLIL is the integration of Content and Language, then both of them should be the focus of the teaching and learning process. In fact, “the strength of CLIL emerges when we consider it as an educational program that takes into account the whole curriculum and not only the learning of foreign language” (Cenoz, 2013, p.392). Therefore, **the maximum profit of CLIL takes place when it is related to the whole curriculum and not just limited to language or content curricula** (Cenoz, 2015b). According to Mehisto et al. (2008, p. 12), the ultimate goal of CLIL initiatives is the achievement of:

- Grade-appropriate levels of academic achievement in subjects taught through the CLIL language.
- Age-appropriate levels of first-language competence in language skills.
- An understanding and appreciation of the cultures associated with the CLIL language and the student's L1.
- The cognitive and social skills and habits required for success in an ever changing world.

Apart from this diversity of CLIL definitions, **different terms are also used to refer to the same practices** (Marsh, 2002). This diversity is also found within country borders. For instance, this is the case of Spain where CLIL is both referred as Bilingual Education (Pérez-Vidal, 2009), Plurilingual programme (Pérez-Cañado, 2016) and AICLE (the Spanish translation of CLIL).

The overall picture of **CLIL conceptualisation is heterogeneous**. Nevertheless, the lack of precision of the CLIL term and its wideness have both been applauded and criticised. It is believed that the heterogeneity and flexibility of CLIL have been the cornerstone for its quick widespread and success. According to Marsh (2008), the flexibility of CLIL has enabled the adaptation of this approach to different contexts, needs, resources and aims. Such flexibility has also led to the development of CLIL environments built on bottom-up initiatives as well as top-down policies (Coyle, 2007). In fact, Marsh (2016) states that it does not exist a prototypical model of CLIL that can be transferred from one place to another and it is the context what determines its peculiarities. Pérez Cañado (2016b) goes further in this idea and sees CLIL as a set of localised responses to the rise of English as a Lingua Franca. In fact, for some authors (Ruiz de Zarobe & Cenoz, 2015b), it seems that using CLIL as an umbrella term should not be the main focus, but the acknowledgement of the range of approaches to integrate language and content curriculum.

The **openness and flexibility of CLIL conceptualisation has also been seen as a drawback**. Firstly, the flexibility of the term may cause that some educational practices can be regarded as CLIL when they are not (Ball & Lindsay, 2010; Coyle, 2007) or lead to the loss of what has made this approach popular (Ioannou Georgiou, 2012). For this reason it is necessary that CLIL practices are contextualised within a framework, with clear aims and project outcomes (Coyle, 2007; Ioannou-Georgina & Pavlou, 2011; Ruiz de Zarobe & Cenoz, 2015b). The openness of CLIL may difficult teacher training, the establishment of realistic goals and the evaluation of its efficacy (Lasagabaster & Sierra, 2010). This variety of CLIL models may also hinder communication between researchers, teachers and policymakers (Ioannou-Georgina & Pavlou,

2011). According to Paran (2013), CLIL concept should be used rigorously and it should be only applied to those contexts where content and language are integrated. For this reason, it seems necessary to clarify “what the main principles of CLIL are, as well as the basic requirements for its success” (Ioannou-Georgina & Pavlou, 2011, p.398).

2.1.2. CLIL in relation to other Bilingual Models

Numerous attempts have been carried out to establish either a clear distinction or alignment between CLIL and other models of Bilingual Education, especially immersion and content-based instruction. For some scholars, these models are the same, but they are used in different contexts: CLIL tends to be used in the European context, whereas immersion and Content-Based Instruction (CBI) are generally used in North America and Canada (Coyle et al., 2010). Furthermore, immersion is also considered a type of CBI (Cenoz & Ruiz de Zarobe, 2015). For other scholars, the specific contextual differences are the ones that determine the differences between these models of bilingual education (Lasagabaster & Sierra, 2010).

Immersion has traditionally been defined as a form of bilingual education that “aims for additive bilingualism by providing students with sheltered classroom environment in which they receive at least half of their subject-matter instruction through the medium of a language that they are learning” (Lyster, 2007, p. 8). Students also receive instruction through the majority language and support for the immersion language (Swain & Lapkin, 1995). Immersion programmes differ among themselves in terms of age of enrolment (early, intermediate, late) and the amount of L2 teaching (total, partial) (Nikula & Mård-Miettinen, 2014).

Content-Based Instruction has been conceptualised as

an approach to second language instruction that involves the use of a second language to learn or practice content [...]. As such, many content-based courses or programmes use the second language as the medium for learning the content of specific subjects (such as mathematics, science, art or social sciences) shifting the focus from language as a course content to language as the medium of instruction (Met, 1998, p. 35).

However, even though immersion and Content-Based Instruction (CBI) definitions seem to be narrower than CLIL conceptualisations, the implementation of these two approaches has also varied across contexts. In order to classify these range of programmes regarding their language or content nature, Met (1998) drew a continuum (Figure 3). At one end of the continuum, there were the content-driven language programmes and, at the other end, the language-driven content programmes. Towards the middle of the continuum there were those programmes that

combined and integrated both language and content. Thus, CLIL should be placed in the middle, since the main distinctiveness of CLIL is its integrative nature (Coyle, 2007).

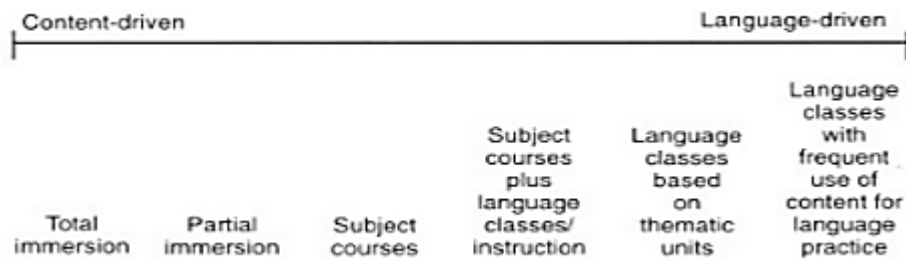


Figure 3. Met's (1998) continuum of content and language integration. Source: Met (1998, p.41).

According to Lyster and Ballinger (2011), the main difference between content-driven and language-driven programmes is that the former promotes both language and content learning and assesses both of them, whereas the main focus of the latter is on language and content is not assessed. Ruiz-Garrido and Gómez (2009) also proposed that CLIL should be placed in a continuum, establishing in one end *non-CLIL* (non-concern for language learning and no pedagogical collaboration) and, in the other end, *Adjunt-CLIL* (integration of content and language and pedagogical coordination).

The comparison of CLIL with other models of bilingual provision models is not absent of controversy (Table 3). While some scholars believe that such distinction is essential (Lasagabaster & Sierra, 2010), others consider that the distinction is rather contextual than specific of a model (Ruiz de Zarobe & Cenoz, 2015b). The problem arises when these concepts are used interchangeably and the results from one context are transferred to another without paying attention to the peculiarities of a specific bilingual programme and the context where it is applied. The similarities and differences between CLIL and Immersion and CBI programmes are going to be analysed in depth in the following section.

Table 3. Comparison of CLIL with other bilingual models according to the characteristics described by previous scholars.

CHARACTERISTICS	IMMERSION	CBI	CLIL
Language	Generally, a language of the context.	Generally, a lingua franca	Generally, a lingua franca.
Role of Language	Attain near native-like levels.	Improve Target Language Competence	Improve Target Language Competence
Starting Age	Early, Late	Generally, once a certain level in the L1	Generally, once a certain level in the L1

		has been attained	has been attained
Amount of Target Language Teaching	Partial (>50%), total	Partial	Partial (<50%)
Curriculum	The same as those not attending immersion programmes	Integration of content and language curriculum	Integration of content and language curriculum
Bilingualism	Additive	Additive	Additive
Target Language Exposure	Basically, in the school environment	Basically, in the school environment	Basically, in the school environment
Target Language Level	Similar and limited level	Similar and limited level	Similar and limited level
Teachers	Bilingual in both languages	CBI teachers are bi-/multi-lingual, but not necessarily the non-CBI teachers.	CLIL teachers are bi-/multi-lingual, but not necessarily the non-CLIL teachers.
Group of Learners	Heterogeneous	Heterogeneous	Heterogeneous

Source: Own Elaboration.

Once the characteristics of immersion, content-based instruction and CLIL have been identified and classified, CLIL will be compared with immersion and CBI models in more detail.

CLIL and Immersion

Immersion appeared in Canada in the 1960s when parents demanded a good command of local languages (French and English) for their children (Swain & Lapkin, 2005). It was later introduced in Europe to enrich L2 acquisition, but also to enhance and maintain minority languages (Nikula & Mård-Miettinen, 2014). According to Swain and Lapkin (2005), there are **eight core features that define immersion programmes**: 1) the immersion language is the medium of instruction; 2) immersion curriculum parallels that one of the local curriculum; 3) overt support for the diverse L1s; 4) promotion of additive bilingualism; 5) Exposure to the L2 is basically limited to the classroom setting; 6) students enter the programme with similar and limited levels of target language proficiency; 7) Teachers are characteristically bilingual in both languages of instruction; and 8) the classroom may be a highly heterogeneous group.

Nevertheless, the term immersion has also been misused, especially to refer to those programmes that only use the L2 for instruction (Cammarata & Tedick, 2012). According to Fortune and Tedick (2008, pp. 9–10), educational **programmes can only be labelled as immersion programmes** when they have **these characteristics**:

- a. At least 50% of the lessons are taught through the immersion language in preschool and elementary school. At secondary level, a minimum of two year-long content courses are taught in the immersion language.
- b. Additive bi- or multilingualism and literacy are promoted.
- c. Teachers are fully proficient in the immersion language.
- d. There is community support for the majority language.
- e. Teachers clearly separate the use of one language versus another.

Some efforts have been made to establish a clear cut between Immersion and CLIL. Lasagabaster and Sierra (2010) analysed the **similarities and differences between immersion and CLIL** taking into account the Basque Country peculiarities. The authors acknowledge that some similarities between CLIL and immersion do exist. However, these similarities are insufficient to use both terms interchangeably. First of all, immersion tends to be carried out in a **local language**, whereas CLIL tends to use a foreign language. **Language** election has a massive impact on language objectives and outcomes. “The **objectives** of immersion and CLIL in the same country cannot therefore be the same” (Op. cit., 2010, p.369). As regard for **teachers**, they tend to have a good command in the immersion language, whereas this is not the case in CLIL. Consequently, CLIL teachers need specific training in the CLIL language. There are also differences between Immersion and CLIL in terms of **starting age**, early and late respectively. The **materials** used are also different: in immersion they are intended for native speakers, but this is not the case in CLIL. Some of these differences have also been pointed out by Pérez-Cañado (2012). Ball and Lindsay (2010) state that immersion programmes do not necessarily force teachers to change their methodological approach, while CLIL teachers have to rethink the role of language in the content subject. However, ideally, this should be done both in CLIL and non-CLIL settings.

The criteria established by Lasagabaster and Sierra (2010) to differentiate CLIL and immersion have been widely criticised. The criteria have been regarded as context specific and not based on generic empirical evidence (Paran, 2013; Somers & Surmont, 2012). Cenoz et al. (2014) also reported that there was a need to establish the scope of CLIL, but the differences between CLIL and immersion regarding goals, students’ characteristics, target language, content and language integration and pedagogical issues did not stand when they were analysed deeply. “It is difficult, if not impossible, to identify features that are uniquely characteristic of CLIL in contrast with immersion education” (p.13). In response to these differences, Dalton-Puffer et al. (2014) considered that Cenoz et al. (2014) did not take into account CLIL and immersion context of appearance, being this one of their main characteristics. Navés (2009) identified two major

differences between immersion and CLIL: on the one hand, immersion programmes tend to offer a wide range of instruction in the L2, whereas, in CLIL, learners' L1 is the main language of instruction. On the other hand, in immersion programmes, learners' tend to initially share the same L1 and the L2 command varies greatly. However, these differences could be regarded as context-embedded rather than general of any immersion or CLIL context.

In the recent years, however, there has been a **twist regarding CLIL and immersion comparison**. The focus is no longer on pointing out the differences, but identifying the similarities and how one model can inform the other. Lyster and Ballinger (2011) consider that CLIL and immersion are similar since both aim at integrating content and language. CLIL and immersion similarities have been advocated by several scholars (Cenoz et al., 2014; Pérez Cañado, 2016a; Somers & Surmont, 2012). The main similarities are:

- Immersion does not always incorporate local languages. CLIL is also used to teach regional and minority languages.
- The amount of L2 exposure.
- CLIL and Immersion aim at increasing L2 command.
- The ideal teacher is no longer a native speaker in any of the two approaches.
- Starting age is not necessary different between both programmes.
- L2 medium instruction is alongside L1 teaching and L2 lessons.
- The goal of both approaches is additive bilingualism.
- Materials are generally designed in both contexts.

In fact, there has been a call for a more inclusive, integrative and constructivist conceptualisation of CLIL that does not intend to clear-cut CLIL from immersion (Cenoz & Ruiz de Zarobe, 2015). However, in some contexts, as in Catalonia or other bilingual regions, these terms are used to refer to two different realities: immersion is used to refer to the teaching and learning of content through the regional language in order to achieve near native-like competence, whereas CLIL is used to reinforce the learning of a foreign language while learning content and the expected outcomes is a better command of the foreign language (Muñoz, 2002). What is true is that there is a need to well-define CLIL in order to share and transfer findings and learning from one context to another. In addition, previous experiences in immersion contexts can inform CLIL practices.

CLIL and Content-Based Instruction

As in the case of immersion, some attempts to establish similarities and differences between CLIL and Content-Based Instruction (CBI) have been found. Nevertheless, the picture can become rather complicated if immersion is considered a type of CBI provision and, therefore, both CBI and CLIL are considered umbrella terms that include different types of programmes (Cenoz, 2015a; Genesee & Lindholm-Leary, 2013). **While a range of differences and similarities have been found between CLIL and immersion, this is not the case for CLIL and CBI.** As mentioned previously, CLIL is a European concept, whereas Content-Based Instruction basically applies to North-American and Canadian contexts. Despite these contextual differences, there is a general agreement that both labels refer to the same reality (Ruiz de Zarobe & Cenoz, 2015). In fact, Cenoz (2015a, p.19) states:

The analysis indicated that CBI/CLIL programmes share the same essential properties and are not pedagogically different from each other. The prototypical CBI/CLIL programme is taught by a content teacher of different content subjects with an L2 or additional language as the language of instruction.[...] Scholars, practitioners and educators may have their preferences for one label over the other but CBI and CLIL are essentially the same thing.

Banegas (2012) states that both CBI and CLIL offer a great variety of models and approaches that go from a content-driven focus to language-driven one. Therefore, in terms of pedagogy, there is not only one approach to integrate content and language. In the same line, Pérez Cañado (2016) also considers that CLIL and CBI instruction are the same and, therefore, they can be used to describe the same reality. Thus, the current challenge is recognising the variety of models that CLIL can encompass and how the results and effects from a type of provision are transferred to another for the benefit of the research and teaching community. Most CBI and CLIL programmes involve, at least, one curricular subject taught through a foreign language. The differences that can be found between these two models are rather cultural or political than specific of the type of provision (Ruiz de Zarobe & Cenoz, 2015).

Overall, the current scenario is rather complicated. There is a general agreement that what mainly characterises CLIL is its integrative nature. However, it is not so clear what distinguishes this approach to other existing bilingual models. In fact, what appears to describe best bilingual provision is diversity since all the discussed models share some features but also they vary greatly due to contextual characteristics. Therefore, even though there have been some criticisms for using contextual features to differentiate bilingual models, it seems that it is the context what better helps to define them. “What we consider to be fundamental is the need for

a detailed explanation of the educational and contextual variables that apply in any kind of research, and the need for those variables to be explicitly described” (Ruiz de Zarobe & Cenoz, 2015, p.91).

This picture becomes even more complicated if classroom diversity in terms of language is considered. Some comparisons have been based on pupils’ L1. However, nowadays, it is difficult to say that a group of students share the same L1. In fact, in some contexts, it is challenging to exactly identify which is/are the learner’s L1(s). Consequently, some kinds of bilingual education are provided, in terms of Gallagher and Leahy (2014), by design (it is intended), but also by default (students have no choice but to learn through a language different to their L1).

In short, some scholars do not consider necessary the establishment of a clear-cut between CLIL, immersion and CBI. Nevertheless, it is necessary to clearly define what it is understood by these types of bilingual provision, what their aims are, the implications they have and how they are going to be achieved since all these factors have a major impact on the implementation of this programmes, provision, teacher training, students’ outcomes and programme evaluation.

Even though drawing a line between bilingual models might not be the essential aim of CLIL research, **“it is crucial that CLIL is carefully defined so as not to exceed its scope”** (Coyle et al., 2010, p. 305). Consequently, for the purpose of this study CLIL is going to be conceptualised using the principles identified by previous studies (Dalton-Puffer et al., 2014; Mehisto, 2008; Wolff, 2007), but also taking into account the contextual variables that characterise the context of this study. Even though strong criticisms have been thrown for using contextual factors to define the type of bilingual provision (Paran, 2013; Somers & Surmont, 2012), it has also been claimed that it is fundamental to clearly define the educational and contextual variables that apply in a research (Ruiz de Zarobe & Cenoz, 2015). In addition, the discussion above has shown that the main differences between bilingual models tend to be contextual rather than internal. On top of that, it becomes imperative to define CLIL in terms of contextual factors so as to help stakeholders understand and implement CLIL in regions where more than one official language coexist, as in Catalonia, and there is a long tradition in one type of bilingual provision, such as Immersion. In fact, in Catalonia, the terms immersion and CLIL tend to be used to define two different realities: while the former refers to the teaching and learning of the regional language (Catalan), CLIL refers to the use of foreign language, generally English, to learn curricular content.

Therefore, for the purpose of this study, *Content and Language Integrated Learning (CLIL)* is understood as an educational approach where some curricular content is taught integratively with an *additional* language to students participating in some form of mainstream education aiming at the acquisition of both content and foreign language (definition adapted from Hüttner & Smit, 2014). Therefore, content and foreign language curricular aims are integrated and assessed altogether and both content and language receive attention. This approach leads to a greater command of the foreign language, but not to native-like proficiency since the amount of CLIL teaching is reduced to one or two subjects and not necessarily during the whole compulsory education. In addition, the contact with the foreign languages may be reduced to school context. Teachers do not tend to be proficient or near native-like in the foreign language. The additional language tends to be taught alongside CLIL provision.

2.2. CLIL Contextualisation

The integration of content and an additional language is not a new approach. Along History, several communities or groups of people have been taught in a language different of their L1 (Cenoz & Ruiz de Zarobe, 2015; Mehisto et al., 2008). The reasons have been diverse: nomadic communities, mobility around regions, conquest, the supremacy of some empires, the supremacy of a language in some spheres (for instance, Latin in cultured circles), among others. In fact, some of these reasons can be found nowadays since monolingual communities are becoming a rare phenomenon due to human mobility (Cavalli et al., 2009). Consequently, it is more common to find diverse L1 backgrounds within a classroom. This diversity has direct implications in the teaching practice, as well as children development. For this reasons, awareness has been arisen towards the need to handle this diversity at all education levels because it has direct implications on children well-being and academic achievement (Ball, 2011). Indeed, an extensive body of research has been developed in this field.

However, while plurilingual societies and schools have flourished because of several sociological factors, what is new is developing multilingualism intentionally at school (Ruiz de Zarobe & Cenoz, 2015a). **CLIL is an example of intended and planned multilingualism.** Therefore, it is necessary to understand why multilingualism has been encouraged in traditionally monolingual societies and how it has been done. To understand the reasons that led to the encouragement and implementation of CLIL, it is necessary to go back in time and analyse the construction of the unified Europe and its demands of multilingual citizens.

2.2.1. CLIL in Europe

2.2.1.1. Historical Evolution

The design and construction of the European Union (EU) put the attention on language because each state had at least one official language and these languages were different between countries. This had consequences on some of the parameters the European Union aimed to build, for instance the mobility of European citizens. For this reason, from the early beginning of what would become the European Union, there were **supranational European initiatives to regulate the teaching and learning of languages**, specifically the additional languages (Marsh, 2002, 2013). These regulations were closely linked to the Second Language Acquisition (SLA) and learning theories of each period.

In the 1950s, there were the first dialogues to build up the European Union. Supranational and national regulations and language policies came along with these initial talks. The policies were determined by the ideas about language of that moment, mainly based on behaviourist theory (Skinner, 1957): second language learners had to master the second language up to a native-like level. Mastering the language meant mastering the language structures and grammar. Additionally, during this period, it was believed that second language learning was restricted to either bright or elite students (Lightbown & Spada, 2006).

The 1960s came with new ideas regarding language relevance. Languages were important for spoken communication, not only for reading and accessing knowledge. The new ideas had implications on policies. For instance, the European Council listed objectives regarding the teaching and learning of foreign languages. These objectives were influenced by cognitivist theories. It was not until the 1970s, because of the influence of Chomsky's work (1975) and his idea of a *Universal Grammar*, that there was a move towards a communicative approach for the teaching and learning of languages. In addition, the access to foreign languages was open to large sections of school population, as well as school-age students. However, there were still some challenges because the teaching and learning of foreign languages sometimes lacked authenticity and relevance (Marsh, 2002). During this period, the European Commission encouraged the teaching and learning through the medium of more than one language.

In the 1980s, there was a strong encouragement from the European Council towards the teaching and learning of the community languages. For instance, in 1983, the European Council (1983) noted the need to improve the teaching of foreign languages and to promote the teaching of the languages of the member states. In 1985, the European Council (1985) encouraged the acquisition of teaching and learning of European states' languages from an early

age. However, all these policies had to face implementation challenges. It was in the mid-1990s, when the European Parliament strongly encouraged the combination of content and foreign language teaching. In fact, **the Council of Europe (1995) established that European students had to acquire their mother tongue plus two community languages**, what was known as MT +2. In order to achieve this aim, the Council of Europe stated that the teaching methods should be revisited, as well as teacher education needed to be improved. In addition, it was encouraged an early start to foreign language teaching and learning and the addition of a second foreign language in secondary education.

It is desirable for foreign language learning to start at pre-school level. It seems essential for such teaching to be placed on a systematic footing in primary education, with the learning of a second community language starting at secondary school. It could even be argued that secondary school pupils should study certain subjects in the first foreign language learned (Council of Europe, 1995, p. 167).

Therefore, **1995 was the first time that Content and Language Integrated Learning was explicitly fostered by the Council of Europe**, as well as the need to provide language training for non-language teachers. From then on, the European Commission has kept encouraging the construction of a plurilingual Europe. In the early 2000s, the European Year of Languages (2001) was launched aiming at encouraging multilingualism through the establishment of guidelines for improving language teaching and learning and the emergence of CLIL (Marsh, 2013). That same year, it was presented the *Common European Framework of Reference for Languages: Learning, Teaching and Assessment* (CEFR) (Council of Europe, 2001). This framework was followed by an Action Plan 2004-2006 (European Commission, 2003) in which 45 proposals were established around four areas: lifelong language learning; quality language teaching; building language-friendly environments; and a framework for achieving greater progress. This Action Plan specified some particular features for CLIL teaching and learning (Marsh, 2013). This Plan was complemented by *A New Framework Strategy for Multilingualism* (European Commission, 2005). Currently, the strategy 'Education and Training 2020' also includes the promotion of multilingualism and the acquisition of additional languages at school (European Commission, 2013a).

Apart from these regulations, the integration of content and foreign language teaching and learning was also promoted through the **publication of several reports on CLIL** teaching and learning: *Content and Language Integrated Learning (CLIL) at School in Europe* (Eurydice, 2006) and *Key data on teaching language at School in Europe* (Eurydice, 2012, 2017a). In addition, the European Commission has also founded several European Projects on CLIL teaching and

Learning. Finally, *Talking the future 2010-2020* (Asikainen et al., 2010) has established the needs, challenges and future directions that have to be tackled during the 2010s regarding language learning.

2.2.1.2. Reasons for CLIL implementation across Europe

The encouragement of the European Union towards Content and Language Integrated Learning (CLIL) was based on several reasons. At the **political level**, as it can be inferred from previous sections, building up a unified Europe made necessary sharing a common language, as the MT +2 formula aimed at (European Commission, 1996). At the **economical level**, globalisation and migration caused that a person would be more competitive in the labour market if s/he knew more than one language (Mehisto et al., 2008).

However, educational changes and innovations are valuable when their aim is improving education and students' learning (Baetens-Beardsmore, 2002). One of the main reasons to encourage CLIL was **foreign language outcomes**. Some concerns had arisen due to the low foreign language competence European students achieved after years of foreign language instruction. It was believed that teaching content subjects through an additional language would offer a more natural and relevant context for language learning (Ioannou-Georgiou, 2012; Marsh, 2013). On top of that, school would be able to offer more opportunities for foreign language learning (Marsh, 2002) without reducing the amount of teaching of content subjects (Ioannou Georgiou, 2012; Mehisto et al., 2008). Therefore, the introduction of CLIL was mainly because of the poor results in terms of foreign language, not because content subjects results were not good (Kiely, 2011; Marsh, 2013; Pérez-Cañado, 2016).

Nevertheless, it was believed that integrating content and language would also have benefits on **content teaching and learning** (Marsh, 2002; Mehisto et al., 2008). Teaching through a foreign language would make teachers more aware of the language and genres involved in their subjects (De Graff, 2016; Nikula, 2005). Students would have to focus more on the learning content to process them what was believed to have a positive impact on their understanding and acquisition (Coyle et al., 2010; Mehisto et al., 2008). Likewise, it was thought that teaching and learning through an additional language would expand students' perspectives on the content, as well as building an intercultural knowledge and understanding (Marsh, 2002). Additionally, **CLIL fostered equality** in the access to foreign languages because it was intended for mainstream education (Marsh et al., 2009). However, the reality is that, in some CLIL contexts, **students are selected** and CLIL is offered as elite education (Bruton, 2013; Paran, 2013). Students are selected depending on their foreign language, content subject results or both of them (Eurydice, 2017a).

In addition, in those contexts where CLIL is optional, this approach tends to attract bright students (Mehisto & Asser, 2007).

In short, Coyle et al., (2010) summarise the reasons for CLIL as follows:

CLIL is not solely an interesting alternative to language learning. It has a broader educational dimension: it contributes to the development of multilingualism, promotes European integration and helps the learners to enhance the academic skills necessary for their educational and professional careers in the future. (Coyle et al., 2010, p.332)

All these initial assumptions were based on second language acquisition and learning theories, but also on the positive results obtained in Canadian Immersion Education, among other immersion experiences (Marsh, 2002; Navés, 2009). Despite the differences between CLIL in Europe and Canadian Immersion, it was thought that some of the Immersion results and experiences could be transferred and adapted into the European context. Canadian immersion had proven to be successful, not just because of the good language results, but also because of content attainment and L1 proficiency (Genesee, 2004).

Some **concerns** were also arisen. Even though CLIL implied the integration of content and *any* additional language, there was a threat that **English became the dominant language** (Dalton-Puffer, 2007; Marsh, 2002). There were also some doubts on the **effect** CLIL would have **on the L1**, as well as whether it would imply a curriculum turn towards language at the expense of content subjects. However, the **added value of CLIL** was that teaching content subjects through a foreign language would not impact negatively on the other skills and knowledge, provided that the learning experiences were well designed (Marsh, 2002).

Despite these threats, CLIL has been implemented along Europe and outside its borders since it first appeared in 1995. Nowadays, it is still encouraged by the European Union. In more than 20 years, a body of research has been built around CLIL in order to test the assumptions and the initial concerns. The implementation of CLIL, the results and the current challenges will be discussed in the following sections and chapters.

2.2.1. CLIL in Catalonia

Catalonia is one of the European regions where CLIL has been encouraged and implemented since it first appeared. Catalonia is a Spanish region where there are two official languages: Catalan and Spanish. During Franco's dictatorship, Spanish was the language of instruction and Catalan was only used in informal contexts, leaving an illiterate society (Maldonado, Solé, Vidal, Aliaga, & Marí, 2009). It was not until the establishment of the Spanish constitution (1978) and

the First Catalan Statute of Autonomy (1979) (and the subsequent modification, 2006), that policies for the use of Catalan as the language of instruction were established.

These policies established two main goals (Subdirecció General de Llengua i Plurilingüisme, 2018): Catalan is the language of instruction for everybody at non-university level and students have to achieve the same level of competence both in Catalan and Spanish. **Immersion is used as an educational approach** to ensure that every child will achieve these two goals, as well as to guarantee social cohesion. Teachers have to be proficient in both Catalan and Spanish. Since the 1980s, this is the model used for Catalan schools. It is based on Canadian immersion programmes and its positive results.

Several studies have analysed the impact of Catalan immersion programmes on the achievement of both Catalan and Spanish competence, as well as content achievement, being one of these studies PISA. The last PISA report (MECD, 2015) revealed that Catalan students achieve the same levels of attainment than their Spanish counterparts and in some cases even higher (PISA, 2015). The results have also revealed that those Catalan students with Spanish as a mother tongue do not have lower levels of attainment. As regards for language, Catalan students achieve the same level of Spanish competence as their Spanish counterparts. However, the results relative to Catalan competence are more inconclusive. It seems that the level of attainment depends greatly on contextual factors, such as the Catalan contact outside the school and the context where those students live (Oller & Vila, 2011).

Despite the general good results of Catalan Immersion, this model was challenged by the arrival of students from different parts of the world into the Catalan system. In 2009, there were students from 160 different countries in the Catalan education system who spoke 250 different languages (Maldonado et al., 2009). PISA results indicate that immigrant students are more likely to get lower results than their national counterparts (OECD, 2015). Studies analysing the impact of Catalan instruction on immigrant students have found that, in general, immigrant students know less written and oral Catalan and Spanish. Only immigrants with Romanic languages achieve the same language level as the native speakers after seven to nine years in the school system (Oller & Vila, 2008). It seems that the final level of Catalan and Spanish competence of immigrant students depends largely on the context where they live and the number of immigrants in their classroom (Oller & Vila, 2012).

To the Catalan Immersion model developed in the 1980s, it was added the **encouragement of students' multilingualism in the late 1990s**. Multilingualism in Catalonia was encouraged

because of the participation of the Catalan government in European initiatives, as well as the belief that multilingualism would make Catalan students more competitive in the labour market (Lorenzo & Piquer, 2013) and it would internationalise education (Pérez-Vidal, Lorenzo, & Trench, 2015). Even though, there had been some previous isolated experiences of Content and Language Integrated Learning in Catalonia, it was not until 1999 when the Catalan government encouraged this practice at the primary and secondary level.

In 1999, Catalan Government launched the Orator Project which lasted until 2004 (Ordre EDC/39/1999 de 31 d'agost, 1999). It was an Action Plan that intended to improve the teaching and learning of foreign languages, promoting the attainment of certain levels of foreign language proficiency (mainly English and French). This project offered support to schools for CLIL implementation during two years. However, schools had to ensure the continuity of this project after this initial support and integrate it into the Linguistic Project of the school. During the five years of the Orator Project, more than 400 projects were developed along Catalonia (Lorenzo & Piquer, 2013; Marsh, 2002).

The *Action Plan for students' English Language Competence* (Pla d'Impuls al domini de la llengua anglesa per part de l'alumnat) was launched during the academic year 2006-2007 by the Catalan Education Department. This project encouraged the use of CLIL and project work approaches. This plan was quickly changed into *Action Plan for students' Foreign Language Competence* (Pla d'Impuls al Domini de les Llengües Estrangeres per part de l'alumnat). This change mainly implied integrating other foreign languages apart from English (Resolució EDC/1329/2005 de 25 d'abril, 2005). This new action plan encouraged two main actions: provide grants for teachers to stay abroad or start a *Foreign Language Experimental Plan* (Pla Experimental de Llengües Estrangeres, PELE) (2006-2010) which was a continuation of the Orator Project. This new project lasted four years and provided grants to schools to develop CLIL, project work or activities for oral skills development (Servei Llengües Estrangeres, 2011). This project led to the development of 1345 projects related to foreign language teaching and learning (Lorenzo & Piquer, 2013).

In 2012, the continuity of *Foreign Language Experimental Plan* was established. It was called *Foreign Languages Integrated Plan 2012-2015* (Pla Integrat de Llengües Estrangeres, PILE), (DOGC 6114, 2012). This new plan aimed at integrating vocational schools, specifically but also all post-compulsory levels. This plan also intended to improve schools' linguistic projects in a two-year cycle. Currently, the PILE project has led to *Experimentation Groups for Multilingualism* (Grup d'Experimentació per al Plurilingüisme, 2014-2017) and *Plurilingual Generation: learning foreign languages through content subjects* (2017-2020) (Resolució ENS/1363 de 7 de juny,

2017b). This group aims to achieve 2020 European goals of European competitiveness, internationalisation and school success (Generalitat de Catalunya, 2017). Therefore, this group offers an environment where participants can reflect on the role of languages at school and the community.

All these Catalan initiatives have been subjected to Spanish Education Laws and the European legislations. The last two Spanish Education Laws, LOE 2006 (LOE 2/2006, de 4 de mayo, 2006) and LOMCE 2013 (LOMCE 8/2013 de 9 de diciembre, 2013), have regulated the teaching and learning of foreign languages, as well as they have proposed the methodologies that should be used and how they should be assessed. The current Catalan curriculum (Decret 119/2015 de 23 de Juny, 2015) for primary education, which is based on the LOMCE law, establishes that students must be competent both in Catalan and Spanish at the end of primary education and develop basic skills in a foreign language. In addition, previous Decrees (Decret 142/2007 de 26 de juny; Decret 143/2007 de 26 de juny), which established the curriculum for compulsory education, clearly encouraged the integration of content and language teaching and learning, as well as an integrated approach for all the school languages (Decret 143/2007 de 26 de juny, 2007).

Even though CLIL has been implemented from infant education to tertiary level in Catalonia, there is a **lack of exhaustive research** on how it has been implemented and what the outcomes are (Navés & Victori, 2010). However, the external examinations carried out at primary level revealed that foreign language competence is the one in which more differences can be found due to students' socioeconomic and cultural background (Rodríguez, 2015). In addition, currently, external examinations also reveal that less than 50% of Catalan students attain the B1 (according to the Common Framework of Reference for Languages) level in foreign languages stated by the curriculum when they finish compulsory education. For this reason, one of the key actions established in the Action Plan for School Success in Catalonia is promoting plurilingualism (Secretaria de Polítiques Educatives, 2013).

Therefore, although CLIL is not compulsory, some initiatives have been developed in the Catalan context to encourage its implementation and development. However, it seems that there is a lack of regulations that explicitly specify the requirements teachers and schools have to fulfil in order to teach a content subject through a foreign language. In chapter 3, it will be analysed and discussed the current challenges for CLIL implementation in Catalonia.

2.3. Pedagogical and Language Theories that Support CLIL

2.3.1. CLIL Theoretical Underpinnings

CLIL is based on sociocultural learning theories (Marsh & Frigols-Martín, 2012; Moate, 2010). According to the socio-constructivist perspective, knowledge is historically constructed and culturally and socially contextualised. That is, knowledge does not exist as an independent entity, but as a result of social construction. Consequently, the learning process is not an individual process, but social. Vygotsky (1978) stated that the process of *internalisation*, referring to the reconstruction of an external operation until it became internal, appeared at two levels: interpersonal and intrapersonal. The operation first appeared at the social level (interpersonal) and, after a series of developments, it appeared at the individual level (intrapersonal).

Therefore, children's current level is the result of their actual developmental level, what they are able to do individually, and the potential developmental level, what children are not able to do independently now, but they have the potential to acquire with the help of an expert. This is what Vygotsky called *Zone of Proximal Development (ZDP)*, "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). Taking into account this prospective mental development, teaching and learning should be placed in this zone so that learning can enhance cognitive development.

2.3.1.2. Socio-Constructivism and Language Learning

In this social process of knowledge construction and mental development, speech plays a crucial role, since language is the mediating tool through which this social interaction can occur (Vygotsky, 1986). Therefore, general learning should not isolate language learning because **learning is learning to mean and to expand that meaning potential** (Halliday, 1993). In addition, speech and thought are closely interwoven: children do not only speak about what they are doing, but also children's speech and mental functions work together to achieve a specific goal. According to sociocultural theory, speech helps children plan a solution to a problem before executing it, leading them towards a higher thinking level. Language is seen as a ubiquitous, flexible and a creative tool to make meaning (Mercer & Littleton, 2007). "Language is the essential condition for knowing, the process by which experience becomes knowledge" (Halliday, 1993, p.94).

The most significant moment in the course of intellectual development, which gives birth to the purely human forms of practical and abstract intelligence, occurs when speech and practical activity, two previously completely independent lines of development, converge (Vygotsky, 1978, p. 24).

Interestingly, according to the sociocultural perspective, improvements in thought and in speech are not two parallel processes, although the development of thought is determined by language (Vollmer, 2006; Vygotsky, 1986). That is, the development of inner speech depends on external factors and the development of logical thinking depends on the child's social speech. In addition, **language is the medium for reflecting on learning, for improving it and for becoming an autonomous learner** (Vollmer, 2006). Therefore, language plays a major role in the intellectual development since it initiates knowledge at the social level, before the individual appropriation (Mercer, 1995). Halliday (1993) takes it further and states that any kind of learning, even non-verbal learning, implies a learning system of meaning, independently that a child learns to ride a bike or his/her rights and duties.

Real concepts are impossible without words, and thinking in concepts does not exist beyond verbal thinking. That is why the central moment in concept formation, and its generative cause, is a specific use of words as functional 'tools' (Vygotsky, 1986, p.107).

Vygotsky also studied second language learning and multilingualism in childhood. According to Vygotsky (1935), first and foreign language learning processes have a lot of communalities because these processes are internally unified. Nevertheless, they follow two different lines of development: while native language is acquired spontaneously and finishes with a conscious mastery use of the language, foreign language starts with conscious learning and finishes with spontaneous use. However, there is a close dependency between these two processes: the acquisition of foreign language depends on the level of attainment in the native language since the child does not repeat past linguistic developments, but uses the native language as a mediator. "The child can transfer to the new language the system of meaning he already possesses in his own. The reverse is also true" (Vygotsky, 1986, p. 196). Thus, the strongest dependency appears at the level of verbal thought since the relationship of thought and language changes with the integration of a new language:

We see a dual process at work in the development of competences of the bilingual, namely the separation of two or more languages at the production level, with a concomitant process of unification at the level of verbal meaning and thought. (Steiner, 1985, p. 155)

2.3.1.3. *Implications of Socio-Constructivism on Teaching Practice*

The sociocultural perspective of learning and foreign language acquisition has implications for Content and Language Integrated Learning. Content subject learning implies **acquiring not only the knowledge, but also the discourse of that specific field** (Moate, 2010). Therefore, when integrating content and language, the non-language subject will determine the type of activities and the learning demands to acquire regarding a specific content, but the foreign language will also determine how this knowledge is accessed and expressed.

Specific environments for content and language learning need to be established if language is both the mediating tool through which students can access knowledge and it is also part of the content to be learnt. Pierce and Gilles (2008) identified five types of interactive talk that took place when students interacted to construct knowledge: Social talk, Meta talk, Critical talk, Expert talk and Exploratory talk. Moate (2011) added two other typologies to this list: organisational talk and pedagogical talk. Exploratory talk is believed to be the type of language through which learners construct thinking since it implies the creation of a collaborative environment where learners can share and confront ideas, as well as negotiate together new understandings (Moate, 2010).

This **exploratory talk and collaborative environment** are essential in a socio-constructivists perspective since it will establish the conditions for learning at the social level, a prerequisite for learning to be internalised and, therefore, to become development. However, this learning would not only be at the content level, but also at the language level due to the collaborative dialogue. *Collaborative dialogue* “is knowledge building dialogue [...] it is dialogue that constructs linguistic knowledge [...] it is where language use and language learning can co-occur. It is language use mediating language learning. It is cognitive activity and it is social activity” (Swain, 2000, p. 97). The idea can be formulated when the language is used to mediate conceptualisation and problem-solving (Swain & Lapkin, 2013).

School teaching must confront children with tasks that make new demands on them so that students’ intellect can be stimulated and, therefore, their thinking can reach higher stages. According to Vygotsky (1986), there are **four main considerations school instruction needs to consider to enhance mental development:**

1. The use of both written and oral speech, since both represent two different activities: the former is an abstract, voluntary and conscious activity, whilst the latter is spontaneous, involuntary and unconscious.

2. Instruction usually precedes development: children learn certain skills before they are able to use them consciously and independently.
3. Intellectual development is not encapsulated in school subjects, but integratively.
4. Provided that the necessary materials are supplied, the development of scientific concepts runs ahead of the development of spontaneous concepts.

In short, from socio-constructivist learning theories, collaboration and dialogue are necessary to learn. It is through dialogue and interaction that human beings not only acquire knowledge, but higher order thinking skills. This is even more important in our current society where learners have to select the information and the resources from a range of options, while they interact with other learners and agents. CLIL provides an advantage in this sense since it allows to integrate content learning through the conscious use and learning of language. Therefore, CLIL includes the main principles of socio constructivist learning theories.

2.3.2. Second Language Acquisition Theories: Implications for CLIL

As it has been mentioned in section 2.1, CLIL, among other things, aims at improving foreign language learning, in particular, but the whole learning, in general (Eurydice, 2006; Lorenzo, 2007; Marsh, 2002). Lorenzo (2007b) and Muñoz (2007) state how CLIL can overcome some of the shortcomings found in traditional foreign language teaching and in immersion and content-based instruction.

Traditional foreign language teaching (focused on grammar) failed to provide enough and meaningful input what negatively affected language learning (Vollmer, 2006). In addition, form-focus teaching was based on teachers' explanations of grammar structures rather than learners inferring them. Additionally, students' production was limited and it did not encourage deep language processing. It was believed that without meaning orientation, linguistic learning was impossible (Lorenzo, 2007a). As a reaction against form focus traditional teaching, appeared the communicative approach. The **communicative approach** is characterised by being organised according to the communicative functions that a specific learner has to master. Therefore, the emphasis is on the teaching and use of particular forms that may be used to express these functions appropriately (Canale & Swain, 1980). The problem with some practical applications of the communicative approach is that there was a tendency to focus on meaning, leaving behind the focus on form and form processing. Complex production was not always required and context constrained the type of language demands (Muñoz, 2007).

The outcomes of traditional foreign language teaching have repeatedly shown a poor foreign language proficiency (Marsh, 2002). In the case of immersion and content-based instruction, it has been found that students achieve native-like or near native-like command in the L2 reception skills (reading and listening), but not in production skills (writing and listening) (Genesee, 2004; Genesee & Lindholm-Leary, 2013). CLIL may provide sufficient, real and relevant input and it may motivate the processing of meaning (Muñoz, 2007), as well as creates conditions for naturalistic language learning (Navés, 2009) and to focus on form (Muñoz, 2007). Research results also indicate that bilingual education for majority language students is effective for both young and older learners provided that it is offered an appropriate and continuous instruction. Additionally, bilingual education seems to be beneficial for majority students, regardless of their individual differences. In addition, research indicates that language learning is enhanced when plenty of opportunities to use the additional language interactively are offered (Genesee, 2004; Genesee & Lindholm-Leary, 2013).

Due to the previous research findings from CBI contexts, several scholars have proposed to adopt a **functional systemic view of languages** (Dalton-Puffer, 2013; Lorenzo, 2007a). From the perspective of *Systemic Functional Linguistics* (SFL) (Halliday & Matthiessen, 2004), language is seen as both a social semiotic tool and as a system of choices that encompasses the different levels of discourse (from phonology to discourse levels). That is, language is the means by which we make sense of our experience and we interact with others. This means is based on a grammar system that has to consider all the factors outside language (context, world, interlocutor...) to transform them into wording. Therefore, learning a language is to express our relationships with the others and the environment supported by a system (grammar) that enables us to construct a text.

Even though language use and learning has been presented from a socio-cultural perspective in section 2.3.1, language learning has also been described from a socio-cognitive perspective. Socio-cognitive theories, which are based on Piaget's theory, see knowledge construction and learning as individual processes that occur in people's brains. Thus, learning is an individual process that consists in relating previous knowledge to the new one (Serrano et al., 2011). Some Second and Language Acquisition (SLA) theories beyond CLIL are based on socio-cognitive principles. The following subsections present some of the theories that intended to provide a description of how language learning occurs from a socio-cognitive point of view.

2.3.2.1. *Input hypothesis*

The *Input Hypothesis* is based on Krashen's Monitor Model. The Monitor Model, which starts from the difference between language and acquisition, hypothesises that adults have two independent systems to acquire a second language: subconscious language acquisition and conscious language learning (Krashen, 1979). These two systems, although independent, are intertwined. **Language acquisition is similar to the process followed by children when acquiring their first language.** For this to happen, meaningful interaction in the target language is required in which the focus is on meaning not on form. On the contrary, language *learning* is a conscious process in which the language is learnt consciously by focusing on form.

The **Monitor Model Hypothesis** (Krashen, 1981) claims that conscious language learning only exists as a monitor. That is, the formal knowledge acquired will be used to adjust the speakers' performance. However, for this to happen, time is needed, the individual needs to focus on form and know the rule. Nonetheless, these three conditions rarely happen in natural interactions. According to this, a 'Good language learner', in Krashen's terms, is a person who is first and foremost an acquirer and who may be also an 'optimal Monitor user'.

Therefore, for a language learner to become a 'good language learner' needs **comprehensible input**, which is the input that is understood and the student needs in order to acquire the target language. This idea is what Krashen (1979) called The **Input Hypothesis (i + 1)**, being 'i' the acquirer's current stage and '+ 1' the stage beyond. This input can be simple codes which present sufficient of those structures the learner is ready to acquire, but also input from natural communication that the person is able to understand. Language is best acquired when it is used for its main purpose: communication. In addition, optimal input includes structures that are 'just beyond' the acquirer's current level of competence and it gets progressively more complex. This progression needs to match the individual's competence development in order to be effective, as well as be natural communication. According to Krashen (1981) and his Input Hypothesis, comprehension precedes production. This does not mean that production is not important because it may encourage acquisition. However, the focus must be on the amount of input an acquirer can get. This comprehensible input is available in meaningful and communicative activities.

2.3.2.2. *Interaction Hypothesis*

Michael Long (1980), starting from Krashen's Input Hypothesis, developed *the Interaction Hypothesis*. Long acknowledged that input was necessary, but not sufficient. According to this hypothesis, **learners need to comprehend input in order to develop their interlanguages** (the

language of the learner). For this input to be comprehensible, **interaction is crucial** mainly for two reasons: on the one hand, comprehensible input in an L2 is present and, on the other hand, negotiation of meaning through interaction makes input comprehensible thanks to the modifications in the interactional structure of conversation. In addition, there seem to be some conditions that favour this interaction: first, tasks in which there is a real need for exchanging information and, second, the participants have a symmetrical role (i.e. peer-to-peer). Therefore, according to Long (1980), comprehensible input is necessary, but learners need to be provided with opportunities for production.

Nevertheless, some aspects need to be considered so that learners can notice language features during interaction (Ellis, 1991): a) task demands; b) unusual features; c) markedness; d) the learners' L1 and e) the individual differences.

2.3.2.3. Output hypothesis

The *Output Hypothesis* (Swain, 1985) is based on the idea that interlanguage development can only take place when **learners are encouraged to improve their output**. This hypothesis goes beyond the idea of comprehensible input and states that interaction offers learners the possibility to use the target language to produce output (Van Lier, 2008).

This hypothesis is based on empirical findings that show how output pushed learners to process language more deeply than input. According to Swain (2000), when producing an utterance, not only learners need to convey meaning, but also they discover what they are able to do and what they are not. Therefore, it promotes noticing, as well as hypothesis testing; that is, use trial and error to verify the correct form. Consequently, output is not seen only for communication, but as a means to become self-aware of the actual language level, test the language and reflect on how the target language works. In short, from the output hypothesis perspective, verbalisation has several functions: "it focuses attention; it externalises hypotheses, test them and supplies possible solutions, and it mediates their implementation of such strategic behaviour as planning and evaluating" (Swain, 2000, p.108).

2.3.2.4. Form Focused approaches

Research findings repeatedly showed that both focus on forms² and focus on meaning³ had negatively effects on the linguistic command of second language learners. The former neglected the communicative competence of learners since the students were not able to transfer the

² Focus on Forms refers to the planned attempts to focus on specific language features, basically grammar, out of context (Ellis, 2015).

³ Focus on Meaning refers to the L2 teaching approach that stresses communication and comprehension.

grammar knowledge acquired out of context to real social interactions. On the contrary, the latter stressed meaning what neglected accuracy. Consequently, learners developed near nativelike comprehension skills (reading and listening), but they lacked accuracy in productive skills (speaking and writing). This difference was more evident for spontaneous production. For this reason, Long (1991, 2000) proposed a counterbalanced approach to Focus on Forms and Focus on Meaning:

Form focused refers to how attentional resources are allocated and involves briefly drawing students' attention to linguistic elements (words, collocations, grammatical structures, pragmatic patterns, etc.) *in context*, as they arise incidentally in lessons whose overriding focus is on meaning, or communication. The temporary shifts in focal attention are triggered by students' problems with comprehension or production (Long, 2000, p.185).

Form-Focused approach is believed to present two main advantages (Doughty & Williams, 1998; Leeman, Arteagoitia, Fridman, & Doughty, 1995): first, second language learners may need to reflect on specific linguistic features to move beyond their current interlanguage competence. That is, learners will need to notice a linguistic form, before acquiring it. Second, Form focused can accelerate the natural process of Second Language Acquisition (SLA). According to Lyster (2007, p. 126), "the counterbalanced hypothesis predicts that interlanguage restructuring is triggered by instructional interventions that orient learners in the direction opposite to what their target language learning environment has accustomed them."

Lyster (2007) proposed different instructional options for form-focused teaching:

- a. Noticing and awareness activities designed to make input features salient and to facilitate their intake in declarative form.
- b. Production practice activities designed to facilitate the creation of procedures of target language knowledge.
- c. Negotiation involving teacher's prompts and other engaging feedback that push students to draw optimally on their developing knowledge of the target language and increasingly to take responsibility for their learning.

Doughty and Williams (1998) consider that the **linguistic features selected** to be focused on will depend on: learners' developmental readiness; relevance of typological universal; inherent difficulty of rules; and, reliability and scope of rules. Even though this approach promotes the focus on linguistic features, it is stressed that communicative interaction should be prioritised. That is, teachers and learners main focus should be the language communicative use. However,

despite the focus on meaning, situations will arise in which learners' will need or demand a focus on form (Ellis, 2015). Therefore, the main characteristics of form focused are: it is incidental, it occurs when language is used and it is transitory (op. cit).

2.3.2.5. Basic Interpersonal Communicative Skills & Cognitive Academic Language Proficiency

The difference between *Basic Interpersonal Communicative Skills* (BICS) and *Cognitive Academic Language Proficiency* (CALP) was arisen by Cummins (1979). *BICS* refer to the conversational fluency in a target language, whereas *CALP* refers to students' ability to understand and express, in an oral and written way, concepts and ideas that are relevant to succeed in academic contexts. According to Cummins, **BICS and CALP construct language proficiency.**

The distinction between BICS and CALPS was arisen after researching immigrant students learning through a second language. The results revealed that, even though L2 students seemed proficient in the target language, they struggled academically. However, the problem was not because of a learning need, but because of the insufficient knowledge of L2 academic language (Cummins, 2008). *Classroom language* is the language involved in tasks or activities which tend to integrate higher order thinking skills (Gibbons, 1991).

Cummins also hypothesised about the existence of a **common underlying proficiency**, an idea previously mentioned by Vygotsky (1986). This hypothesis established that cognitive and academic aspects of the mother tongue or the first language of schooling and the second language were interdependent. Consequently, the development of L2 proficiency is dependent of the level of L1 proficiency. Therefore, both L1 and L2 CALP are manifestations of a unique underlying dimension (Cummins, 1979). For this reason, attention should be paid to the transfer of conceptual knowledge and language awareness from one language to another. L1 academic language can enrich L2 academic language acquisition, but the same is true in the other direction (Cummins, 1999).

According to Cummins (1999), bilingual education should address **three components to develop L2 CALP:**

- Cognitive: teaching and learning should be cognitively challenging and students should be encouraged to use higher order thinking skills.
- Academic: content and language should be integrated.
- Language: language awareness should be developed.

Compiling the main ideas from each theory, CLIL teaching and learning should provide sufficient and comprehensible input, encourage students to produce and interact, as well as teachers should be aware of the cognitive demands underlying language use and language comprehension. In short, second languages are most successfully learnt when the conditions are similar to those present in first language acquisition (Navés, 2009).

2.3.3. Curriculum Theories: Implications for CLIL Integration

The realisation of CLIL does not only have implications at classroom level, but also at curriculum level since the actual integration of content and language implies the integration of two curricular subjects that traditionally have been planned and taught separately. Therefore, CLIL implementation may cause a curricular reconceptualisation. The design and adaptation of the curriculum at the school level has to be in line with the prescribed official curriculum. For this reason, this section will refer to the different curricular conceptualisations and approaches and how they may facilitate or not language and content integration.

2.3.3.1. Curricular Conceptualisations and Approaches

Depending on how curriculum is understood, the selection and organisation of what needs to be learnt, how and when will vary. The curricular conceptualisation varies greatly depending on the socio-political perspective about education, knowledge, social change, school and learner's role (Angulo & Blanco, 1994) because an educational curriculum represents a society and an idea of desired society (Carr, 1998). **Traditionally, basic education curriculums have been organised in separated subjects or disciplines.** These curriculums have tended to prescribe the contents to be acquired and the learning outcomes to be achieved per each subject by the end of basic education. Consequently, these curriculums have encouraged the division of content learning in different subjects and have presented knowledge in separated and encapsulated curricular subjects (Pérez-Gómez, 2012; Stenhouse, 1971). The curricular conceptualisation behind these traditional curriculums has tended to be as content⁴ or as planning⁵. These traditional conceptualisations have consequences for teachers and students' roles. That is, curriculum realisation has consisted of teaching and learning what was prescribed, leaving no room for either researching on real classroom and world issues or deciding teaching practices (Gimeno & Pérez-Gómez, 1992).

⁴ Conceptualising a curriculum as content means understanding the curriculum as the framework that includes all the contents (generally conceptual contents) a child has to acquire to become an active citizen of his/her community.

⁵ Conceptualising a curriculum as a plan means understanding the curriculum as the framework that not only includes the contents to be learnt, but also proposes the organisation of the educational system, the methodological approach and the assessment approach.

However, several voices have complaint against technological⁶ approaches since the early beginning of 20th Century, from Dewey's work until nowadays. These critical voices have defended practical educational and curricular approaches. It has been defended the idea of a **curriculum as a general framework that establishes the core educational goals**, at the same time that it allows teachers and students to continuously construct and negotiate learning contents (Angulo & Blanco, 1994; Elliott, 1991, 2015; Gimeno & Pérez-Gómez, 1992; Kemmis, 1998; Stenhouse, 1971). According to Stenhouse (1970), the practical approach is more consistent with how students learn and teachers teach:

The actual school's goal during basic education was not that students' acquired contents, but they developed formal capacities since we were conscious of the ephemeral nature of knowledge, especially in a society where new knowledge is built rapidly and the obsolescence of knowledge has every day shorter periods (Angulo & Blanco, 1994, p.69) [originally in Spanish]

Curricular approaches have direct consequences on content selection and organisation (Angulo & Blanco, 1994). Technological approaches tend to understand knowledge from a *philosophical perspective*; that is, knowledge is seen as something given that cannot be negotiated. Therefore, stable knowledge needs to be identified and transferred to learners. Traditional disciplines are seen as the best way to approach this knowledge. On the contrary, *practical* approaches tend to understand knowledge from a *sociological perspective*. Knowledge is believed to be a social product and, therefore, it can be negotiated, criticised and discussed. According to this perspective, disciplines are not the only way to approach knowledge. Moreover, disciplines classification may impede tackling a topic comprehensively and, thus, it is expected that students will establish the connections between the different areas. However, this is something learners rarely do if they are not taught how to do it (Elliott, 1991).

The type of curriculum will impact on CLIL provision. If an educational system has a long experience and tradition with curriculums organised as a content or a plan and, at the same time, these curriculums follow a technological curricular approach, it will be more difficult to establish connections between different subjects (i.e. foreign language subject and a content subject). In addition, it is possible that there will be a tendency to understand CLIL as a combination of two subjects, as it seems to occurs in Catalonia: learning a given content subject through a foreign language. On the contrary, if an educational system has a more open curricular conception and a practical curricular approach, it will favour integration. Moreover, it is possible

⁶ Technological curricula are those that present a compilation of systematic techniques, together with practical knowledge for the design, validation and operationalization of schools as an education system.

that CLIL realisation will be the result of integrating several content subjects (breaking down the barriers between the different subjects) around a topic/theme that will be worked in an additional language.

2.3.3.2. Curriculum Integration

Current labour market and cultural challenges are larger and deeper since they are global and multidimensional (Beane, 2005; Pérez-Gómez, 2012). These challenges demand a comprehensive approach towards knowledge construction. In fact, an indicator of knowledge relevance is the amount of connections that can be established between different areas, since this kind of knowledge leads to a better understanding of the world and its problems (Carbonell, 2010).

For this reason, an **integrated curricular approach** has been proposed to replace traditional compartmentalised curricula. An integrated curriculum is

Education that is organised in such a way that it cuts across subject-matter line, bringing together various aspects of the curriculum into meaningful associations to focus upon broad areas of study. It views learning and teaching in a holistic way and reflects the real world, which is interactive (Shoemaker, 1989, p.5).

Different curriculum integration approaches have been identified depending on how curriculum integration has been conceptualised. Drake and Williams (2004) propose three different integration approaches:

- *Multidisciplinary Integration*. Multidisciplinary approaches main focus is on disciplines. Therefore, teachers organise the contents around a theme, for instance the learning centres and theme-based units.
- *Intersdisciplinary Integration*. Teaching and learning are organised around common learnings across disciplines. For instance, the acquisition of interdisciplinary skills and concepts.
- *Transdisciplinary Integration*. The curriculum is organised around questions, concerns and needs of students. For example, project-based learning and negotiating the curriculum.

However, according to Beane (2005) **there is a difference between curriculum integration and multidisciplinary or interdisciplinary approaches**. While curriculum integration aims to improve personal and social integration through a focus on important problems and topics without

considering the separated subjects, multidisciplinary and interdisciplinary approaches tackle a topic from the different subjects. Therefore, the subject division is still present.

Curriculum integration is a move forward towards a constructivist view of learning (Casal, 2007; Lake, 1994) because it encourages the acquisition of meaningful contents and the establishment of connections between these contents. A well-known example of integrated curriculum is Stenhouse's *Humanities Curriculum Project* (Stenhouse, 1971), a project that reorganised knowledge into categories that were relevant and expressed human experience. Therefore, the role of the teacher became the one of a researcher since s/he would test educational ideas and his/her practice would contribute to the development of educational theories. Therefore, the curriculum should encourage educational improvements, but considering that these practices would depend on teacher realisation:

Curriculum foster improvements in educational practice not because they compel teachers to implement their underlying ideas but because they create a framework within which teachers can extend their own ideas by bridging them into a dialectical relationship with other people. The insights or understanding which emerge and get translated into action 'go beyond' not only teachers' previous ideas but also they confront in the curriculum. (Elliott, 1991, p. 108)

However, as societies change and so do their demands, the curriculum, as a socially-constructed artefact, has to be re-made in response to the contextual circumstances (Carr, 1998). Recently, it has been promoted a **competence-based curriculum** (European Commission, 2007, 2018a). The idea beyond this curriculum is to develop key competences that will foster students' lifelong learning. The competence-based curriculum encourages curricular integration since competences, by nature, imply the mobilisation and integration of different types of knowledge to solve a complex situation in a given context (Cano, 2008, 2015; Perrenoud, 2004b; Rogiers, 2007; Tardif, 2008). However, despite the European Union's encouragement, competence-based approaches are implemented in an irregular way (Cano & Fernández-Ferrer, 2016; Olsen, 2005; Struyven & De Meyst, 2010).

With regard to CLIL, schools and teachers implementing CLIL will have to face the challenge to practice and research with their national curriculum and analyse how CLIL integration will be done, how the results will be analysed and, more specifically, how this integration will affect the curricular organisation. In addition, schools will have to decide at what level of integration they will be working: integrating two different subjects maintaining subject distinction or integrating the whole curriculum breaking subject barriers. Nevertheless, this decision should be evidence-based; that is, if previous research proves that there are some forms of curricular integration

that work better than others, schools should be advised and encouraged to establish these models. Consequently, the educational administration should offer training and support so that schools and teachers are able to integrate the curriculum.

2.3.3.3. Integration of Curricular Languages

CLIL has brought to the foreground a traditional debate about the role of the different school languages and children's languages in the learning process. Even though it was believed that bilingual speakers had two separated language systems in the past, research on bilingual and multilingual speakers has proven that they only have one general language system/competence (Bialystok, 1987). This idea was also defended by Cummins (1979), with the *common underlying proficiency* (see above), and the *Common European Framework for languages* (Council of Europe, 2001, p. 177):

Plurilingual and pluricultural competence refers to the ability to use languages for the purposes of communication and to take part in intercultural interaction, where a person, viewed as a social agent has proficiency, of varying degrees, in several languages and experience of several cultures. This is not seen as the superposition of juxtaposition of distinct competences, but rather as the existence of a complex or even composite competence on which the user may draw.

Consequently, it has been defended **an integrated language curriculum**. An integrated language curriculum is based on two ideas: one the one hand, there is a general language competence and, therefore, what is known and learnt about a language will affect the other languages. On the other hand, the integrated language curriculum, in line with socio-constructivism, sees languages as a communicative tool and, therefore, languages are learnt and acquired while they are used not only in language subjects, but, especially, in real communicative situations as the ones the content subjects offer (Casal, 2007; Lorenzo, Trujillo, & Vez, 2011; Vollmer, 2006). This will offer the opportunity to both learn the social language use, but also formal language use.

Therefore, an integrated language curriculum will explicitly **seek for communalities between curricular and students' languages** so as to plan language learning and the use of strategies to transfer language skills (Esteve & González, 2016; Noguero, 2008). The integration of curricular languages, the strategies used and the scaffolding of language learning should be clearly stated in the School's Linguistic Project⁷. This linguistic project should explicit what aspects of each curricular subject will be taken into account, when and how they will be learnt and taught so that learners will be able to use the language to describe, explain, justify, infer and, above all, to act in the world (Jorba, Gómez, & Prat, 2000; Noguero, 2008). In addition, the Educational

⁷ The characteristics of the school linguistic project will be further explained in chapter 3.

Administration may explicitly establish the role of the different curricular languages. This is the case of Catalan linguistic model which is sustained in three pillars: first, Catalan is regarded as the vehicular language for learning. However, students have to finish compulsory education being almost equally competent in Catalan and Spanish and a foreign language. Second, the Catalan model fosters the acquisition of other languages and, finally, it intends to recognise and foster home languages (Pereña, 2016; Subdirecció General de Llengua i Plurilingüisme, 2018).

In short, the teaching and learning through an additional language reopens the debate of language teaching and learning and how schools should integrate curricular languages and learners' languages to favour the learning of all of them and learning in general. Even though some countries or regions have a long tradition in encouraging the integration of curricular languages at the legislation level, as it is the case of Catalonia, school-based CLIL implementation brings to the foreground the role of school languages in academic learning, as well as the role students' languages have when acquiring additional languages. Therefore, CLIL may promote a reorganisation of curricular languages. However, as it has already been stated, this process will be favoured if it exists a tradition of integrating different languages, but also if the curriculum organisation does not separate languages (i.e. Catalan, Spanish, English...) in different subjects.

The integration of content and language offers a good scenario for teachers to become aware of the relationship between language, thought and cognitive skills and for learners to realise how language is used. However, the degree of content and language integration, learners' languages integration, as well as the number of subjects involved will strongly depend on the curricular approach of each educational system and, in particular, of each school. Consequently, previous experience and contextual variables will lead to different models of CLIL realisation and, therefore, to different learning outcomes.

Overall, CLIL provides an excellent scenario to reflect on curriculum integration and language integrated curriculum. To take advantage of this reflection, CLIL must be accompanied by good teaching and good implementation at the school level. Therefore, in the following chapters, it is going to be reviewed what is meant by good CLIL teaching, what implications it has on CLIL teacher education, as well as, CLIL implications at the school level, the school contextual conditions that may enhance this good teaching and, above all, how this innovative practice can be sustained over time and lead to school improvement.

2.3.4. CLIL Implications for Pedagogical Practices

2.3.4.1. *CLIL Implications for Teaching and Learning*

CLIL advocates have claimed that this educational approach offers some potential benefits in terms of language learning in comparison to traditional language teaching. Some of these potential benefits are based on the three main lessons learnt in immersion settings: a) evidence shows that L2 instruction that is integrated with content teaching is more effective than teaching the target language in isolation; b) L2 instruction should provide room for students' production and interaction; and c) L2 instruction needs to focus not only on meaning but also on form (Genesee, 2004).

The factors that promote language and content learning in CLIL are not only reduced to the increase of teaching and learning hours, but the encouragement to move forward from traditional pedagogies. This is eventually achieved when meaningful and authentic content and language are selected (Wolff, 2002), activities enhance students' participation and the language is used to communicate contents (Barbero, Damascelli, & Vittoz, 2009). In addition, the focus on content promotes a depth processing of both content and language (Kong, 2009). **CLIL actually implies a three-way integration of content, language and learning skills.** Thus, ideally, CLIL will promote a holistic development of learners since they will acquire content and language knowledge, as well as learning skills (Hüttner & Smit, 2014; Mehisto et al., 2008). Consequently, according to Coyle (2002), there are four key principles that CLIL promotes: a) Successful content learning (knowledge and skills acquisition); b) Language acquisition, both for learning and communication; c) Cognitive Skills Development and d) Pluriculturalism.

However, most of these claims and expectations are theoretical assumptions grounded on research findings from immersion settings. The fact that most CLIL research has focused on language attainment in CLIL contexts and that most of these initial claims have not been assessed, had as a result a move from an initial enthusiasm towards CLIL and its benefits to a more pessimistic view of CLIL's feasibility (Pérez-Cañado, 2016b). Even though the realisation of CLIL may have innumerable benefits, it is also true that "embracing the CLIL approach does not automatically lead to successful teaching and learning" (Meyer, 2010, p. 10).

Likewise unrealistic optimism, baseless pessimism can also be dangerous. This approach has been criticised for several reasons. It has been said that CLIL research has not been well-based (Bruton, 2011); that CLIL is selective (Bruton, 2013; Bruton, 2011; Paran, 2013); that CLIL aims at replacing traditional foreign language teaching (Bruton, 2013); CLIL in some contexts is a political

move and most CLIL research is conducted by language educators instead of subject specialists (Paran, 2013). For this reason, in the following subsections, CLIL pedagogical implications for teaching and learning will be revised from a theoretical and empirical perspective.

CLIL Pedagogical Practices

For the previous benefits to occur, some pedagogical aspects need to be considered. Even though some authors have claimed that CLIL Methodology is different to the teaching practices used in other contexts (Ball et al., 2015; Dale, Van der Es, & Tanner, 2011). For the purpose of this doctoral dissertation CLIL methodology is going to be understood as an integration of what previously has been defined as 'good pedagogy' for both language and content teaching (Ioannou Georgiou, 2012; Marsh & Frigols Martín, 2012; Mehisto et al., 2008; Nikula, 2015; Pavesi, Bertocchi, Hofmannová, & Kazianka, 2001). Previous works characterised CLIL pedagogical practices from two perspectives: (1) general pedagogical practices (practices that are not specific of a field of knowledge, age...) and (2) language pedagogy. Despite the importance of content specific methodology, CLIL research has tended to adopt a language focus. Therefore, there is a lack of analysis of the pedagogical practices that should be considered from each field of knowledge (Koopman et al., 2014).

As for the (1) **general pedagogical practices**, the methodological strategies used for CLIL teaching and learning will depend on the conceptualisation of CLIL. According to the conceptualisation of CLIL stated above, the pedagogical practices used will have to encourage the integration of both content and language. Therefore, CLIL teaching should be characterised by not compromising content teaching and learning (Ioannou, 2012); promoting safe and rich environments (Marsh, 2013; Mehisto et al., 2008); enabling natural language learning (Jäppinen, 2005), as well as language and content awareness (Ball, Kelly, & Clegg, 2015). These characteristics have implications for the **methodological strategies** (Table 4). Firstly, student-centred methodologies (Coyle, Hood, & Marsh, 2010; Pavesi, Bertocchi, Hofmannová, & Kazianka, 2001) should be used so that students can have an active role acquiring and using the language and contents. Secondly, multiple focuses (language, content, competences, learning skills...) should be used (Coyle et al., 2010; Mehisto et al., 2008). Likewise, communicative and interactive activities must be encouraged (Marsh & Frigols Martín, 2012). Additionally, the strategies used have to enable working on students ZPD (Jäppinen, 2005) and develop both Lower Order Thinking Skills (LOTS) and Higher Order Thinking Skills (HOTS) (Meyer, 2010). Furthermore, different variations on group organisation (pair work, small groups...) and collaborative learning should be fostered (Clegg, 2007).

However, the methodological strategy regarded as essential for CLIL is **Scaffolding** (Banegas, 2012; Coyle et al., 2010; Dale et al., 2011; Genesee & Hamayan, 2016; Marsh, 2013; Mehisto et al., 2008; Meyer, 2010). Scaffolding is the process of preparing a given situation so that the learner has an easy and successful access to the content to progressively reduce this help when the learner develops his/her abilities (Bruner, 1983). Although scaffolding is extremely important in any teaching and learning experience, it becomes even more relevant in CLIL settings because learners will be acquiring new contents in a language they do not master. CLIL teaching should build on students preexisting knowledge, skills, experiences, attitudes and interests (Banegas, 2012; Mehisto et al., 2008) so that the learner can have a solid base on which rely on to face the new learning challenges. This scaffolding should not only be focused on concepts, but also on the discourse that characterises and identifies the content field (Maldonado & Olivares, 2013). Scaffolding, as well as the *Zone of Proximal Development* (ZPD) (Vygotsky, 1978), aim to base the teaching and learning experience on what the learner already knows to move forward to higher levels of attainment. Therefore, it is important for teachers to scaffold learning in order to reduce the cognitive and linguistic load, help students to solve the task and support their production (Meyer, 2010). Scaffolding can be based on a range of supportive tasks, but also on visual support that allows the understanding of the content:

A pedagogy which reduces the cognitive demands on learners can provide support in two main ways. Firstly, it can reduce the language demands of the task, allowing learners to attend more effectively to concepts. Secondly -but less commonly- it can reduce the conceptual demands of the task, allowing learners to attend to language. (Clegg, 2007, p. 114).

Table 4. *Relationship between CLIL characteristics and methodological strategies.*

CLIL CHARACTERISTICS	METHODOLOGICAL STRATEGIES
Content and Language Learning.	Student-centred methodologies. Using multiple focuses (language, content, learning skills...). Focus on HOTS. Multimodal support. Scaffolding. Collaborative learning.
Natural Language Learning.	Student-centred methodologies. Communication and Interaction. Real situations and contexts. Grouping Strategies (pairs, small groups...).
Content and Language Awareness.	Using multiple focuses (language, content, learning skills...). Focus on content and language. Reducing content or language demands.

Source: Own Elaboration

The use of **student-centred methodologies** is believed to promote content and language learning. In this respect, Marsh (2013) states that collaborative-problem solving methodologies take into account social constructivist theories. “What is significant in collaborative learning with both special needs learners and CLIL is that it gives the teacher extra support in identifying specific input needs, and the learner more options for accessing learning” (p.80). In this sense, Casan-Pitarch (2015) reviews some of the benefits of Project work in relation to CLIL teaching and learning. Among these benefits, it is highlighted the openness of tasks, the decision-making and production of learners, the cross-curricular connections and group-based work. However, for all this to happen, it is needed a close collaboration among teachers (Mehisto et al., 2008) and tasks should have an authentic purpose, as well as being cognitively engaging and focused on meaning (Met, 1998). All this has to lead to develop competent learners who can retrieve knowledge and apply it to solve problems (Meyer, 2010). Even though previous literature has focused on project-based learning for CLIL, it is believed that any holistic and comprehensive methodological proposal could have the same or similar benefits.

On the other hand, some of the implications for CLIL pedagogical practices are based on (2) **foreign language teaching and methodology**. These implications move around the controversial topics of focus on form vs. focus on meaning; L1 use (or any other language) in CLIL settings; and academic language vs. formal language learning.

As for the type of **focus on language learning**, there are some CLIL advocates that state that the main focus should be on content and, therefore, focus on meaning should prevail on the focus on form (Lorenzo, 2007a; Mehisto et al., 2008; Nikula et al., 2013; Pérez Cañado, 2016a). However, other voices have stated the need of form-focused teaching in order to acquire the foreign language (Lyster, 2007, 2015; Lyster & Ballinger, 2011). Despite this controversy, effective CLIL teaching has proven to simultaneously focus on meaning and form (de Graaff, Koopman, Anikina, & Westhoff, 2007). Therefore, previous evidence seems to indicate that CLIL settings should enable a focus on input, interaction and output (Meyer, 2010). Nevertheless, the likelihood of balancing the focus on meaning and form will strongly depend on the conceptualisation of CLIL (Coyle et al., 2010).

The role of the L1 in CLIL contexts will also have implications for the pedagogical practices. Along the years, there has been a move from additional language only during second language learning to **code-switching** (changing from one language to another) and **translanguaging**⁸ (Garcia, 2009;

⁸ Translanguaging draws on the notion that there are no clear-cut boundaries between the languages of bi- and multilinguals. Since the linguistic repertoire is unified, the bi/multilingual access their whole repertoire.

Lo, 2015; Nikula & Moore, 2016). The use of other languages, apart from the additional ones, has been particularly encouraged in the first stages of CLIL so as to facilitate knowledge construction. In this line, some scholars have defended *translanguaging pedagogy* in CLIL settings as a way to work with students' funds of knowledge and to position students' cultures and background as valuable (Turner, 2017).

The third controversy around CLIL language learning is related to the **type of language** students should acquire. Some scholars believe that formal language teaching should be planned, taking into consideration actual learners' language level and the expected learning outcomes (Clegg, 2007; Pavesi et al., 2001). However, in terms of academic language, it can be content specific or not. **Content obligatory** language includes subject-embedded terminology, special expressions, multiple meaning of words, syntactical features and language functions which predominate in a particular content area (Dalton-Puffer, 2013). "Learners should know content-obligatory language and content –compatible language to cater for the difference between subject – specific and general discourse" (Banegas, 2012, p.114). Nonetheless, some scholars warn that the language students learn in CLIL settings will depend on how CLIL is conceptualised (Dale, Oostdam, & Verspoor, 2017).

Table 5. *Pedagogical Practices that characterise CLIL.*

Pedagogical Practices	
General Pedagogy	Content and language focus. Natural Language Learning. Safe and rich environments. Language and Content Awareness. Student-centred methodologies. Scaffolding. Collaborative learning. Focus on HOTS
Language Pedagogy	Focus on form and meaning. Use of learners' linguistic repertoire. Content-obligatory language and general academic language.

Source: Own Elaboration

Therefore, when planning a CLIL lesson, teachers need to take into account a range of aspects for successful CLIL teaching and learning to occur (Table 5). CLIL teachers need to consider not only both the content and language demands, but also learners' language level and needs so as to predict when students will need help (Clegg, 2007). However, it is worth noting that content-specific practices have tended to be neglected when CLIL pedagogical practices are described. Probably, this is a consequence of the strong language focus CLIL has received.

From all previously aforementioned, “It is obvious that teaching a subject in a foreign language is not the same as an integration of language and content, and many schools are still to make that transition” (de Bot, 2002, p. 31). If CLIL is only reduced to the translation of curricular content in a foreign language, the success of the approach will be limited (Banegas, 2012). The teaching strategies used will strongly depend on the content, the learning outcomes and students’ language proficiency and needs. To build up knowledge, learners do not only need to access new information, but to establish connections between the new and preexisting knowledge, skills and attitudes. Moreover, meaning-making should occur both at the social and inner level (community), to become development (cognition) through language (communication) (Mehisto et al., 2008). However, integrating content and language in itself is challenging, even more when considering the cognition, community and communication levels, as well as all the aforementioned aspects of good teaching practice. In front of this challenge, some frameworks have been developed in order to help CLIL practitioners to plan and develop CLIL units that take into consideration all the aspects described above. In the next section, these frameworks are presented.

2.3.4.2. Frameworks for Planning CLIL Teaching and Learning

As stated in the previous section, good CLIL teaching and learning implies the integration of both content and language, but also cognition and social interaction. That is, content learning does not only mean the acquisition of concepts, but competences, skills and thinking. The process of acquiring content, competences, skills and thinking is done through language and communication within a social environment. Therefore certain language needs to be learnt (Coyle et al., 2010).

Aiming at helping teachers to integrate all these aspects and for effective CLIL to take place, Coyle (2007b) established the **4 C’s Framework**. This framework intends to help practitioners to explore and reflect on the interrelationship between *Content* (subject matter), *Communication* (language), *Cognition* (thinking and learning), and *Culture* (awareness of self- and ‘otherness’). “The 4Cs Framework takes account of integrated learning (content and cognition) and language learning (communication and cultures) which needs to be transformed into praxis” (Coyle, 2007, p.51). Thus, according to this scholar, effective CLIL occurs when there is a progression in knowledge and cognitive processing, language and skills are developed, as well as intercultural awareness is raised. In short, CLIL implies a reconceptualisation of the role of language that combines learning to use language and using languages to learn.

This framework is based on the following principles:

1. Acquiring subject matter means acquiring learning constructs and developing skills.
2. Acquiring subject knowledge, skills and understanding implies learning and thinking.
3. Cognition requires linguistic demands.
4. Language needs to be learnt in context.
5. Interaction in the learning context is fundamental.
6. The interrelationship between cultures and languages is complex.

Therefore, according to this framework, when teachers plan a CLIL lessons need to account for the content, language and cognitive demands of the unit comprehensively, but also of each task so that the load of these three elements is compensated taken into consideration the social environment where learning will take place. For this purpose, and based on Cummins' (1979) work, Coyle (2007b) draws a **quadrant that should help sequence the learning tasks** (Figure 4). This quadrant intends to show how to balance high and low linguistic and content demands. Based on Bloom's Taxonomy (Krathwohl, 2002), low content demands or Lower Order Thinking Skills (LOTS) imply remembering, understanding and applying, whereas high content demands or Higher Order Thinking Skills (HOTS) involve analysing, evaluating and creating. With regard to language, lower language demands would involve recalling vocabulary words, using formulaic language and talking about routines, among others, whereas high linguistic demands would involve understanding and producing content specific texts.

The desired final level of attainment should be quadrant four: students are able to develop high cognitive demands using high academic language. However, it would be unrealistic to expect student to perform at this level when starting in a CLIL setting. Consequently, according to Coyle (2007b), tasks should be located between quadrants one and three, trying to balance both language and content demands. If quadrant four would be unrealistic at certain point, quadrant two should be avoided by all means since learners would not be challenged either linguistically or cognitively. In fact, it has been proven that students' achievement is higher when they are cognitively challenged (Sammons, Hillman, & Mortimore, 1995).

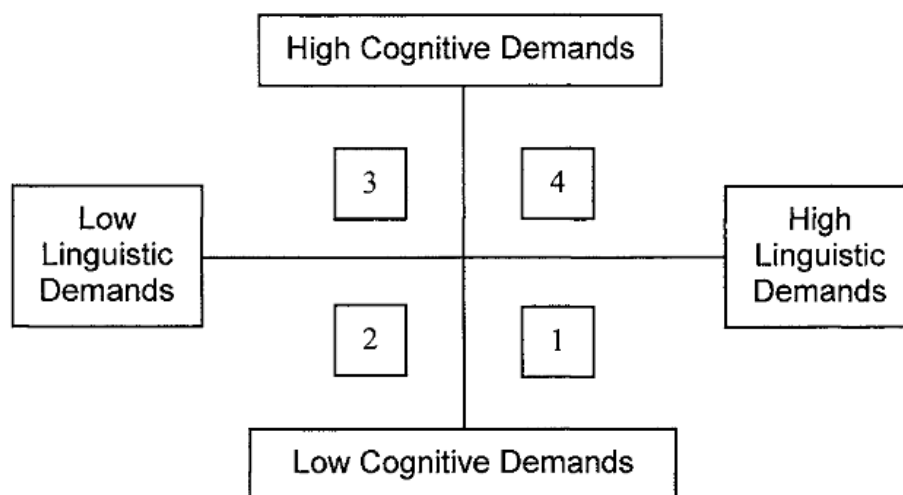


Figure 4. Cognitive and Linguistic demands' Quadrant. Source: Coyle (2007b, p.51).

The 4C's Framework, based on Cummins (1999) idea that Cognitive Academic Language Proficiency (CALP) is promoted when cognition, content and language are addressed, has been widely accepted in the CLIL field. Nevertheless, some revisions were suggested. Firstly, it has been suggested that a fifth 'C' should be included in the 4C's Framework. This fifth 'C' would be *Competence* (Maldonado & Olivares, 2013; Marsh & Meyer, 2012). This revision is based on the European recommendations on competence-based education and the need to develop competences for lifelong learning. However, the scholars proposing the introduction of this new 'C' do not specify whether the five Cs should be at the same level or the integration of Communication, Cognition, Content and Culture should lead to Competence development.

On the other hand, it has been recommended changing the word 'culture' because it leads to some kind of misunderstanding and misuse. Initially, Culture did not mean learning the culture of the foreign language speaking countries, but the social environment where learning took place. However, the first meaning is becoming usual in several studies. For this reason, the word community has been proposed to replace culture (Marsh & Meyer, 2012).

The 4C's Framework completes *the Language Triptych* (Coyle, 2002). The Language Triptych states that when planning the language involved in CLIL, it can be classified in: language of learning, language for learning and language through learning. **Language of learning** is the basic language learners need so as to access basic concepts and skills relative to a given topic. This kind of language has also been referred as *Content-Obligatory Language* (Mehisto et al., 2008). **Language for learning** is the language needed to operate in a learning setting, such as to work in group, to describe, to think or to debate. **Language through learning** is the language of talk,

interaction and dialogic activity. These two types of language are also known as content compatible language (Mehisto et al., 2008).

In addition to the Language Triptych, the **CLIL Pyramid** “was designed to visually represent the idea that quality CLIL, based on the tenets of the 4C’s Framework, can only be achieved when all the 4C’s are considered in lesson planning and materials construction” (Meyer, 2010, p.24). The CLIL Pyramid proposes a systematic sequence for planning CLIL lessons. This sequence starts with the topic selection and finishes with the revision of key content and language elements (Figure 5).

Meyer (2010) proposes five steps to plan a CLIL unit:

1. Selecting the content.
2. Providing multimodal input and distribute it across the unit.
3. Scaffolding based on the selected input.
4. Designing tasks that trigger Higher Order Thinking Skills and lead to authentic communication/interaction in different interactive formats.
5. The characteristics of the desired output determine how much output-scaffolding is needed.

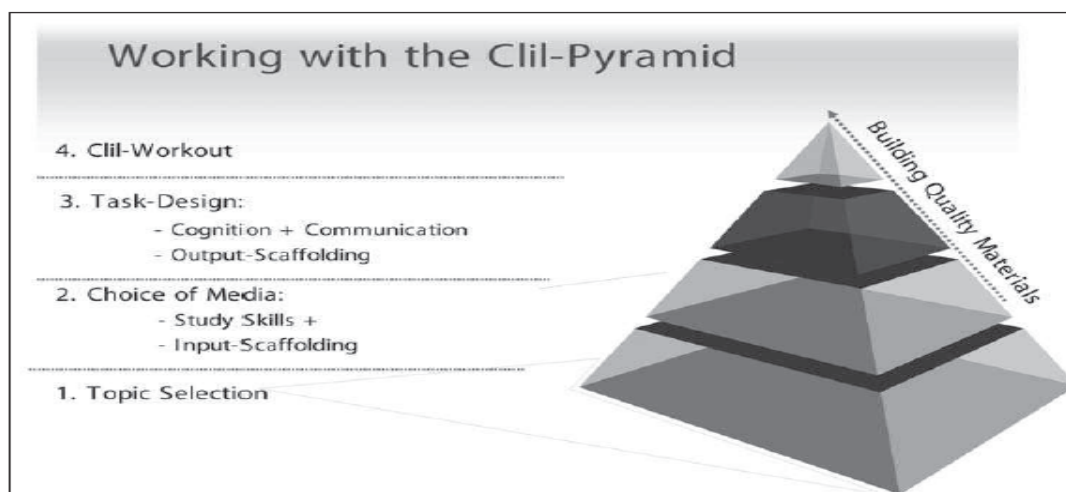


Figure 5. CLIL Pyramid. Source: Meyer (2010, p.25).

In the same line, Nikula et al. (2016) also suggested how a CLIL lesson should be planned. According to these scholars, CLIL lesson plans should start as content units and, from them, identify the discourse event and the language units needed to carry out the unit. The subsequent step would be to design those tasks that would allow acquiring both the content and the language. Ideally, these tasks would be divided in three phases, following Lorenzo's (2007)

classification: 1) pre-task, when the needed language is practiced; 2) task phase, when the content task is done; 3) Post-task, a final language reflection.

More recently, the Graz Group has developed *a pluriliteracies model to Content and Language Integrated Learning* (Coyle, 2015; Meyer & Coyle, 2017; Meyer, Coyle, Halbach, Schuck, & Ting, 2015; Meyer, Halbach, & Coyle, 2015). This model has been proposed as a consequence of the research results in CLIL settings that indicated deficits in academic language use. As a result of the low academic language mastery, the construction and communication of deep knowledge, which requires links between thinking and language, could be neglected. Therefore, the progression on knowledge needs to come together with a progression in learners' subject-specific literacies (Meyer, Coyle, et al., 2015). The pluriliteracies development leads to acquiring specific terminology in a foreign language and use the appropriate genres in a variety of modes (Coyle, 2015).

The pluriliteracies approach focuses on developing literacies for purposeful and appropriate meaning-making in subject disciplines/ thematic studies across language and cultures. This approach is based on the principle that the primary evidence of learning is language (Mohan) which in turn mediates and structures knowledge in culturally determined ways (Coyle, 2015, p.96, based on The Graz Group 2014 definition).

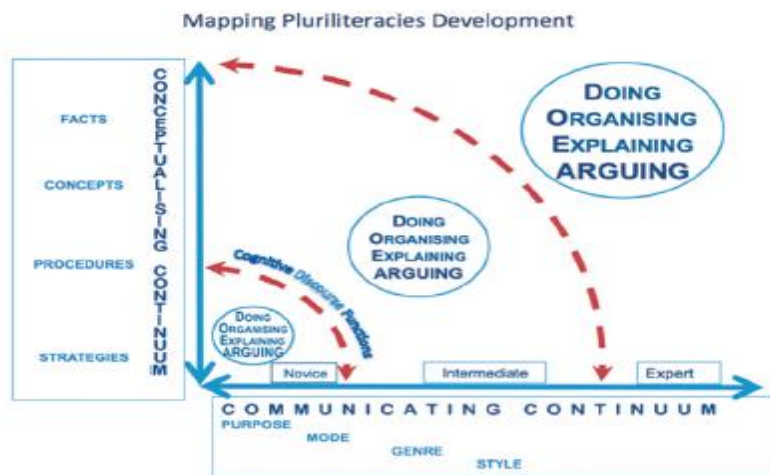


Figure 6. Representation of Pluriliteracies approach. Source: Coyle (2015, p.98).

According to this model, and based on the 4C's Framework, for *Content* to be acquired it needs to be contextualised in the subject's *Culture*, what determines how this Content is used (*Cognition*) and how it is constructed (*Communication*) (Meyer, Halbach, et al., 2015). This pluriliteracies approach is grounded in the idea that integration is based on conceptual and language development. According to this proposal, conceptual development relies on four

domains: procedure, description, theory and discussions. Progression will cause an increase of cognitive and linguistic demands. Therefore, progression in the conceptual continuum will demand developing language in terms of genre, mode and style (Figure 6).

In conclusion, all the proposed frameworks try to provide some sort of support to teachers at the planning phase. The models try to account for some of the different factors involved in CLIL teaching and learning and, specially, how to plan the integration of content and language.

Language in Content Subjects

There are two ideas regarding language that are quite widely accepted in education: first, every teacher is a language teacher and, second, the academic success partially depends on the learners' language competence (Bailey & Butler, 2003). Therefore, the idea that language is integrated with content learning is not new. However, there is still a strong tendency to separate language and content as two different disciplines and teachers tend to identify themselves as either content or language teachers (Bovellan, 2014). What is remarkable in **CLIL** is that it **brings integration to the foreground**. In general, the practitioner in charge of implementing CLIL in the classroom is a content subject teacher (Pavón Vázquez & Ellison, 2013). As a result, and due to teachers' lack of knowledge on second language acquisition theories, there is a certain tendency to overlook the role of language when building up and acquiring subject content. In addition, when paying attention to language, the focus tends to be only on subject specific terminology (Dalton-Puffer, 2016). Consequently, the lack of language awareness competence for CLIL has negative consequences (Moate, 2011a). In front of this picture, several uses of language have been highlighted.

From the sociocultural perspective, language is a multifaceted tool (Mercer, Littleton, & Wegerif, 2004); that is, it is the medium of communication, the means of mediation and the instantiation of perception. Therefore, language is needed to access, construct and demonstrate learning (Moate, 2010). Moreover, this process of negotiating and creating knowledge is socially mediated. Therefore, **learning subject-specific language will not only imply to acquire the specific terminology, but how the people from that field of knowledge think** (Dalton-Puffer, 2013; Moate, 2010). This assumption has implications for language learning in CLIL since CLIL learners will acquire the language that characterises the content subject.

Moate (2010, 2011), based on the sociocultural theories of learning and language (John-Steiner, 1985; Van Lier, 2008; Vygotsky, 1986), conceptualises the role of language, more specifically of talk, in CLIL settings. Her starting point is that pupils need to acquire the specific language of the

content subjects so as to move from the everyday knowledge of the world to subject expertise (Moate, 2011a). During this process, talk has a paramount role because it is through speech that learners can construct knowledge at the social level to later move on the individual level. Nevertheless, not all types of talk have the same purpose. Moate (2011) provides a talk-based model (Figure 7) based on the previous work of Pierce and Gilles (2008).

Organisational talk	The what, when and how of the classroom.
Social talk	Safe, non-assessed talk between peers.
Critical talk	Asking 'why' and 'how come' questions.
Expert talk	The formal voice of the subject.
Exploratory talk	Talk explicitly focused on pupil understanding –established or emerging.
Meta talk	Talk about talk as a tool and as the instantiation of knowledge.
Pedagogical talk	Talk that explicitly bridges every-day and expert perspectives.

Figure 7. Talk-types definitions. Source: Moate (2011, p.22).

According to this model, **exploratory talk** is the type of talk that learners use to build up thinking. Therefore, in CLIL, exploratory talk will not only imply the negotiation of meaning, but also building knowledge, the formulation of contributions and, consequently, moving forward learners' interlanguage. However, for this to happen, learners should have a central role and should be committed to work together (Moate, 2010).

Related to Moate's work, other proposals have focused on the type of language characteristic of each content subject and, thus, how the integration of content and language should aim that learners acquire this content-specific language. Integration of the foreign language in content learning is more than just teachers and learners talking in the additional language. For integration to happen, **content and language curriculums need to be explored to find convergences and align them** (Dale et al., 2017; Dalton-Puffer, 2013). It has been widely studied which is the specific role of language in the different fields of knowledge and it has been found that each field not only has its specific terminology, but its specific way of using language to build and share knowledge (Bunch, 2006, 2009; Gibbons, 2006). It is this specific academic language what Cummins (2008) defined as *Cognitive Academic Language Proficiency* (CALP). Thus, in CLIL, language learning integrated with content will imply learning the language of the subject. Jorba (2000) identified seven cross-curricular cognitive-linguistic abilities that are characterised differently in each field of knowledge. These seven abilities are: describing, defining, summarising, explaining, justifying, arguing and demonstrating.

Dalton-Puffer (2013, 2016) has proposed the **Cognitive Discourse Functions** as a construct to define the discourse genres involved in academic learning. Cognitive Discourse functions are defined as:

Patterns which have crystallised in response to recurrent situative demands in a context where participants have recurrent purposes for communicating. In other words, they are patterns which have arisen from the demand that participants within the institution school orient towards explicit or implicit learning goals and the fact that they have the repeated need for communicating about ways of handling and acting upon curricular content, concepts and facts (Dalton-Puffer, 2013, p.231).

In other words, Cognitive Discourse Functions are the characteristic language patterns of a given subject (Figure 8). These patterns are cultural models since they are shared by the community of a specific field of knowledge. The different categories propose can be interwoven (Dalton-Puffer, 2016). Based on this construct, teachers should be able to identify what the cognitive discourse functions of a given field of knowledge are so that they can design and implement activities that allow students to acquire these patterns.

CLASSIFY	Classify, compare, contrast, match, structure, categorize, subsume
DEFINE	Define, identify, characterize
DESCRIBE	Describe, label, identify, name, specify
EVALUATE	Evaluate, judge, argue, justify, take a stance, critique, recommend, comment, reflect, appreciate
EXPLAIN	Explain, reason, express cause/effect, draw conclusions, deduce
EXPLORE	Explore, hypothesize, speculate, predict, guess, estimate, simulate, take other perspectives
REPORT	Report, inform, recount, narrate, present, summarize, relate

Figure 8. Classification of Cognitive Discourse Functions. Source: Dalton-Puffer (2013, p.235).

In short, the role of language in content acquisition has been explored from different perspectives. Some scholars have focused on the role of language in knowledge construction, whereas others have put their focus on content-specific language. Regardless of the focus, all these studies have intended to make visible content language learning. Integration in CLIL is more than just using an additional language for teaching and learning. Real integration of content and language implies a deep analysis and understanding of the characteristics of both subject and language and how they interplay (de Graaff, 2016).

2.3.4.3. Empirical evidences of CLIL practices

Most CLIL research has focused on analysing the potential benefits of CLIL on students' language learning, but there is also some empirical evidence on teachers' pedagogical practices in CLIL

settings. Nevertheless, the truth is that there are not still conclusive findings for some of the above summarised benefits, assumptions and statements. The reasons for these inconclusive findings are diverse. First, there are aspects that have not received enough attention, such as content learning in CLIL settings. Second, the different CLIL understandings and implementation models make difficult to transfer the results from one context to another. Third, the contextual realities of each country, and even each region, differ and this diversity could partially explain the different outcomes (Pérez-Cañado, 2012; Sylvén, 2013).

With this purpose, first, it will be revised the current evidence on the potential benefits of CLIL in terms of content and language attainment. Subsequently, teachers' practices in CLIL settings, from the methodological strategies to language integration, will be revised. The aim of the summary presented is to build up the theoretical framework for this doctoral thesis. Consequently, those sources and studies more closely aligned to the research aims were selected. In addition, the focus is on the evidence obtained from basic education, even though some references will be made to some findings relative to higher education.

Most states-of-the-art and research agendas have highlighted the **strong orientations of CLIL research towards language competence learning, leaving aside other relevant aspects** (Koopman et al., 2014; Marsh & Frigols-Martín, 2012). Dalton-Puffer & Smit (2007) classified CLIL research in three dimensions: micro-macro, process-product and content-language. These three dimensions were used as indicators to identify the type of research conducted in the field. According to this analysis, process and product-oriented macro studies included studies relative to CLIL implementation or guidelines for CLIL implementation. Product-oriented micro studies focused on both language and content learning in CLIL, whereas the process-oriented micro studies focused on classroom discourse and classroom interactional contexts.

Most research conducted in CLIL has been product-oriented micro studies. Above all, most of these studies have explored language competence development in CLIL settings. However, research has frequently overlooked the integrative nature of CLIL in the sense that it has analysed language skills (reading, writing, listening and speaking) and language competence without taking into consideration how this language and these skills are used in CLIL settings. That is, language testing has been isolated of content as it occurs in EFL settings. Consequently, it is difficult to claim that CLIL by itself has a positive impact on foreign language learning or to isolate this impact from other intertwining factors, such as amount of exposure or quality of exposure. As a result, the findings are heterogeneous and the diversity of contexts and CLIL implementations make it difficult to establish conclusive findings (Nikula et al., 2013).

Even though some studies have shown that both linguistic and content subject competences are promoted more effectively in CLIL than when they are taught in isolation (Marsh, Mehisto, et al., 2009), it is also true that a **lack of cohesion around CLIL pedagogies** has been found. It seems that, in practice, there are two opposed positions regarding CLIL realisation in the classroom: on the one hand, those teaching approaches that adopt a language focus and, on the other hand, those focused on content delivery (Coyle, 2007). As a consequence of the situation described, there are many unresolved situation in CLIL classrooms (Meyer, 2010).

As for the **potential benefits**, the results seem not to be very conclusive either for language and content learning. In terms of **language proficiency**, positive benefits on all language domains have been reported (Coral & Lleixà, 2016; García-Mayo & Hidalgo, 2017; Jiménez-Catalán & Agustín-Llach, 2017; Pérez-Cañado & Lancaster, 2017). However, CLIL learners' receptive skills (listening and reading) appear to benefit more from this approach than productive skills (speaking and writing) (Roquet & Pérez-Vidal, 2015), as previous research on immersion and CBI already found. Indeed, Dalton-Puffer (2004) found that productive language skills, especially speaking, did not seem to be promoted in CLIL classrooms. Interestingly, Pladevall-Ballester (2016) found that the content subject selected to develop CLIL could explain some differences on receptive skills' development. In the study, students attending CLIL Science obtained higher results in listening skills than Art & Craft students. However, this gain was only significant after a certain amount of exposure and after all stakeholders had adapted to the approach. In this same line, evidence seems to show that CLIL potential benefits are seen in the long-run when this approach is implemented in contexts of minimal exposure (Pladevall-Ballester & Vallbona, 2016). Other studies have found that specific teaching strategies can have a positive impact on students' oral comprehension and oral interaction (Coral & Lleixà, 2016). Table 6 presents a summary of the main research findings that are revised in this section. These findings are classified in potentialities, difficulties and lines for future research.

Table 6. *Summary of CLIL research main findings.*

Variable	Potentialities	Difficulties	Future Research
Language proficiency	<ul style="list-style-type: none"> ·Language proficiency (García-Mayo & Hidalgo, 2017; Jiménez-Catalán & Agustín-Llach, 2017; Pérez-Cañado & Lancaster, 2017). ·Language gains (Borràs-Comes, Rapesta, Jiménez, & Escobar, 2017; Coral, 2017; Coral & Lleixà, 2016; Dafouz, 2014; Dafouz, Camacho, & 	<ul style="list-style-type: none"> ·Productive skills (Dalton-Puffer, 2004; Pladevall-Ballester & Vallbona, 2016; Roquet & Pérez-Vidal, 2015). 	<ul style="list-style-type: none"> ·Analysis of the conditions that promote the development of both receptive and productive skills.

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	Urquia, 2014).		
Content Achievement	<ul style="list-style-type: none"> ·Equal attainment than in non-CLIL settings (Borràs-Comes, Arnau, Flecha, & Escobar, 2017; Dafouz, 2014; Dafouz et al., 2014; Jäppinen, 2005). 	<ul style="list-style-type: none"> ·Language improvement at the expenses of content learning (Fernández-Sanjurjo, Fernández-Costales, & Arias-Blanco, 2017). 	<ul style="list-style-type: none"> ·Analysis of teaching and learning conditions for equal attainment of content and language. ·Analysis of the context in which language learning occurs at the expenses of content learning.
Pedagogical Practices	<ul style="list-style-type: none"> ·Evidence of good pedagogy (Coyle et al., 2010; Marsh, 2013; Mehisto et al., 2008; Meyer, 2010). ·Evidences of good language pedagogy (Coral & Lleixà, 2016; de Graaff et al., 2007). 	<ul style="list-style-type: none"> ·Balance content and language teaching (Kong, 2009). ·No evidence on the effect of previous planning on students' learning. ·Content teachers' lack of knowledge on language pedagogy (Koopman et al., 2014). 	<ul style="list-style-type: none"> ·Analyse the impact of Pedagogical practices on students' learning. ·Explore content and language integration in CLIL settings. ·Teachers knowledge on language and content pedagogy.
Classroom discourse	<ul style="list-style-type: none"> ·Some evidences of positioning learners as language users (Kääntä, Kasper, & Piirainen-Marsh, 2016; Nikula & Mård-Miettinen, 2014). 	<ul style="list-style-type: none"> ·No attention to content-related language of the content subject (Dalton-Puffer, 2007; Nikula, 2007). 	<ul style="list-style-type: none"> ·Analyse the reasons why teachers give (or not) attention to language. ·Analyse the impact of focus on language in content lessons on students' learning.
Stakeholders' Perceptions about CLIL	<ul style="list-style-type: none"> ·Language Potentialities ·Parents' perceptions (Coyle, 2013; Mehisto & Asser, 2007; Pladevall-Ballester, 2015). ·Students' perceptions (Coyle, 2013; Di Martino & Di Sabato, 2012; Pladevall-Ballester, 2015). ·School Management Teams' perceptions (Laorden & Peñafiel, 2010; Soler et al., 2017). ·Teachers' perceptions (Skinnari & Bovellan, 2016). 	<ul style="list-style-type: none"> ·Perceptions are not based on evidences (Hüttner, 2013). ·Different perceptions between stakeholders (Soler et al., 2017). 	<ul style="list-style-type: none"> ·Compare stakeholders' perceptions. ·Compare stakeholders' perceptions with evidences. ·Analyse stakeholders' perceptions based on how CLIL is conceptualised.

Source: Own elaboration.

Vollmer's (2008) study, which aimed at analysing the academic writing skills of CLIL and non-CLIL students, found that both groups had poor academic writing skills but, in general, they had considerable **deficits in terms of academic language use and academic form of writing**. The relevance of this finding is that, apparently, the lack of academic language development seems not to be because of the foreign language, but because of a lack of explicit teaching and awareness of this form of language. On the contrary, Zydati (2012) found that CLIL learners developed academic discourse competences up to similar levels to those of pupils who attended regular classes. However, the description of the sample seems to indicate that, in this study, CLIL and non-CLIL groups were not directly comparable, since CLIL students were selected and seemed to have more exposure to the foreign language.

Studies analysing CLIL implementation in higher education or **Integrating Content and Language in Higher Education (ICLHE)** seem to indicate that undergraduate students benefit from being taught in additional language (Borràs-Comes, Rapesta, et al., 2017; Dafouz, 2014; Dafouz et al., 2014). However, Dafouz et al. (2014) found that students' performance was better in some subjects than others. Nevertheless, it cannot be expected that students' language proficiency will automatically improve due to CLIL implementation (Dafouz, 2014).

With regard to **content achievement** in CLIL contexts, findings are even less conclusive. There are studies that point out equal content achievement in CLIL and non-CLIL settings, whereas other studies highlight learners' difficulties to express content knowledge through the target language (Nikula & Mård-Miettinen, 2014). Jäppinen (2005) study aimed at examining Finnish mainstream L1 learners' thinking and content learning processes in CLIL environments. In this case, thinking and content learning processes were considered as a whole in order to study how the CLIL learners used the content taught through a foreign language. It was found that the cognitional development in CLIL environments resembled the one of those students taught through their mother tongue. In some cases, it was found that the cognitional development of CLIL groups was even faster. At the other end of the continuum, there is Fernández-Sanjurjo, Fernández-Costales and Arias-Blanco's (2017) study in which it was found that primary students learning Science contents in their L1 performed slightly better than those students in a CLIL context. Coral et al. (2017) found that PE-in-CLIL reduced the amount of time devoted on motor-engaged activities. Consequently, devoting more time to language could compromise Physical Education activity. Evidence from higher education suggests that CLIL students achieve the same level of content knowledge as their non-CLIL counterparts (Borràs-Comes, Arnau, et al., 2017;

Dafouz, 2014). However there is scarce research on content learning in CLIL settings and available findings cannot be generalised.

Moving on **CLIL pedagogical practices**, previous studies found evidences of 'good pedagogy' in CLIL settings. It was found that, in terms of **methodological strategies**, student-centred methodologies were used (Marsh, 2013; Mehisto et al., 2008); there were evidences of scaffolding (Mehisto et al., 2008), multi-mode teaching and learning (Marsh, 2013), cooperative learning (Mehisto et al., 2008; Meyer, 2010) and an explicit integration of content and language (Pérez-Cañado, 2016a). In terms of **language pedagogy**, classroom-based observation proved that good CLIL teaching included exposure to input, content-oriented processing, form-focused processing, output production and use of strategies, even though not all teachers used these whole range of indicators of good language pedagogy (de Graaff et al., 2007; Muñoz, 2007). However, there is scarce evidence of studies that relate teaching practices to students' learning. An exception is Coral and Lleixà (2016) study in which six teaching strategies were identified to develop students' oral comprehension and interaction during Physical Education.

Even though there is scarce classroom-based research, some studies have examined **the effect of specific type of tasks** on content and language acquisition. This is the case of Nikula's (2015) study in which it was explored the potential of hands-on task activities in CLIL chemistry and physics lessons to acquire subject-specific language, conceptualisation of terminology and meaning construction. It was found that the use of these tasks was content-oriented and there was also an orientation towards subject-specific registers and genres. The results indicated that pre- and post-tasks provided more opportunities to engage in subject-specific language. Interestingly, the study concluded that teachers' expertise in their own subject enabled them to express meaning and construct knowledge. It could be that having a deeper understanding of the content help teachers to implicitly or explicitly know the specific language uses of that particular field of knowledge. However, CLIL teachers should be more sensitive to the typical genre and registers of their subjects. Coral and Lleixà (2016) found that the type of activities and their sequence could have a positive effect on oral comprehension and interaction.

Some studies have also **contrasted content and language specialists practices**. Kong's (2009) study aimed at analysing the pedagogies of content-based and language-based teachers. The findings showed that, while scarce content focus was inadequate for content and language learning, a predominant focus on content neglected students with the adequate support for language learning. The possible effective content and language pedagogies found for CLIL settings were: structuring lessons in a cyclical manner; organising complex content into

knowledge relationships; using the target language explicitly and consistently when exploring content with the students; using questions and peer interaction to explore content.

Despite the development of different frameworks for planning CLIL lessons, as far as it is known, no evidence is available on how a previous planning to integrate content and language affects teachers' practise and students' learning. However, previous research on effective school have highlighted the importance of purposeful teaching (Sammons et al., 1995).

As for **classroom discourse**, Nikula et al. (2013) reviewed the findings regarding CLIL classroom discourse according to three factors: a) if classroom discourse was oriented towards language learning; b) language use and social interaction and c) how knowledge was built. Results revealed that, even though CLIL did not change the institutional roles of teachers and learners, it offered more openness and attention to understanding. Apparently, the results revealed that discussions tended to be led by the teachers in both CLIL and L1 settings. In addition, the type of questions asked by teachers seemed to lead to student's minimal answer. It was found that only those teachers with deep content knowledge were more open to promote divergent thinking and speaking modes. Interestingly, the study also revealed that CLIL settings tended to encourage more hands-on activities which fostered students' talk on the here and now of the task, as well as negotiation of meaning and collaborative forms of talk. Overall, apparently, CLIL can have a positive and negative impact on learners' discourse competence. One influencing factor is teachers' discourse pattern and types of activities, being problem-solving, role-plays and joint narrative construction the type of activities that seem to have the potential to develop discourse competence in CLIL (Nikula & Mård-Miettinen, 2014). However, despite the existence of genre-based pedagogy models, there is no evidence of its use in the CLIL classroom (Llinares, 2015).

In the same line, Kääntä, Kasper and Piirainen-Marsh's (2016) analysis of how the construction of conceptual knowledge of a physical law was built in CLIL settings revealed that the lesson had a strong orientation towards subject content and the subject curriculum. However, it could be consequence of both teachers and learners domain of the foreign language. In fact, Nikula's (2007) analysis of the use of English in Finnish biology and physics classrooms revealed that students used English naturally and they were motivated to do that. In addition, students used direct and colloquial forms of language, what could be due to their lack of pragmatic skills, but also a transfer from Finnish. The study concludes that CLIL contexts seem to succeed in positioning learners as language users. However, the characteristics of the context where the study was carried out may not make the findings generalizable. On the contrary, Dalton-Puffer

(2004) found that the definition of concepts was an infrequent phenomenon in CLIL settings and learners were rarely aware of the type of textual genre they were using. In the same line, Dalton-Puffer (2007) found a lack of academic discourse function in CLIL-classrooms.

Some studies have analysed **stakeholders' perceptions in terms of CLIL learning**. There are studies focusing on learners' perceptions (Coyle, 2013; Deim Trang & Thanh Nga, 2015; Di Martino & Di Sabato, 2012; Loranc-Paszylk, 2015; Pladevall-Ballester, 2015; Skinnari & Bovellan, 2016), school managers' perceptions (Laorden & Peñafiel, 2010; Mehisto & Asser, 2007) and parents' beliefs (Mehisto & Asser, 2007; Pladevall-Ballester, 2015). However, there are scarce studies that compare the perceptions of different stakeholders (Dalton-Puffer & Smit, 2013). Interestingly, those studies comparing stakeholders' perceptions suggest that stakeholders do not always have the same opinion in terms of CLIL implementation (Soler et al., 2017). Nevertheless, stakeholders agree that the implementation of a CLIL project is positive and its potentiality lies on the promotion of the target language. In fact, English has achieved such a high level of instrumental relevance that it is widely accepted that it is a central aspect of general education (Loranc-Paszylk, 2015). However, as Hüttner, Dalton-Puffer and Smit (2013) warn, these perceptions are not based on evidence and students' learning outcomes, but on perceiving learners' as English speakers. Therefore, it seems that "the question about what is actually achieved is irrelevant" (ibid, p.280).

In general, **parents** are satisfied with the CLIL programme and they consider that CLIL projects are successful when their children acquire fluency in the target language, keep high-quality skills in their mother tongue and the school offers a quality general education (Mehisto & Asser, 2007). However, parents' belief their children do not like CLIL when they cannot follow the pace of the lesson or cannot master the concepts (Pladevall-Ballester, 2015). In general, **learners'** react positively when they are taught through a foreign language (Di Martino & Di Sabato, 2012), since they perceive they learn English in a different way and they can see the purpose of learning English, despite the difficulties they may face (Pladevall-Ballester, 2015).

School managers are satisfied with the programme, even though they have to face several challenges (Laorden & Peñafiel, 2010; Mehisto & Asser, 2007; Soler et al., 2017) which are discussed in chapter 3. Finally, **teachers** tend to believe CLIL is beneficial for their students (Loranc-Paszylk, 2015; McDougald, 2015; Mehisto & Asser, 2007; Skinnari & Bovellan, 2016). Nevertheless, despite these positive beliefs, CLIL teachers also report a range of training needs and concerns, mainly because of the flexibility and freedom that CLIL represents (Hüttner et al., 2013). In general, the countries have not developed specific policies for CLIL implementation and

management (Eurydice, 2017a). Consequently, individual teachers are placed high levels of responsibility, since they are the ones who tend to decide individually how CLIL is going to be developed at their school. Therefore, due to the relevance of the issue and for the purpose of this study, the needs and concerns expressed by teachers are going to be revised in depth in chapter 4.

There may be **several reasons why academic subject-specific language skills have not received the appropriate attention** (Meyer, Coyle, et al., 2015): many CLIL teachers use a traditional-transmission based pedagogy; foreign language teachers advocators of CLIL may have influenced the role of language in content teaching; there is a lack of understanding and conceptualisation of content and language integration; there are insufficient guidelines and pedagogic tools for teachers to implement integrated assessment methods. But, above all, the root of the problem seems to be the “absence of a conceptualisation of the role of language and its relation to conceptual development, knowledge construction and meaning-making” (Meyer, Coyle, et al., 2015, p.45).

The summarised results show inconclusive findings regarding learners’ language and content attainment, as well as CLIL teachers’ practices. According to these studies, it seems that one of the factors that partially explain learners’ attainment in CLIL is tightly linked to the pedagogy used in CLIL settings: the role of content and language, the type of tasks and students’ centeredness, among other aspects. Apparently, there is a gap between how CLIL methodology is described theoretically and how it is realised in practice (Koopman et al., 2014). In addition, the pedagogy deployed seems to explain learners’ academic language attainment both in the target language and the school’s lingua franca. Thus, limited achievement of academic language proficiency could be explained by the minimal exposure to language and how the language is conceptualised at the school level. Consequently, these findings seem to indicate that **a reconceptualisation of integration and language teaching and learning, as well as a revision of classroom pedagogies appear to be necessary**. However, this revision should not be only focused on the individual teachers, but institutional-wide.

As for the role of language competence, the presented models and frameworks have emerged as a result of the lack of integration of the target language and content or due to the insufficient consideration of the role of language in content acquisition. Previous analysis of CLIL research and CLIL research agendas have also pointed out this need. Coyle et al. (2010) stress the need of integrating the language across the curriculum, while Dalton-Puffer and Smit (2013) point out that future research should investigate the presence and use of academic language functions in

CLIL and non-CLIL lessons. On the other hand, Pérez Cañado (2016b) stresses that future CLIL research needs to increase the analysis of the effects of CLIL on content and language attainment. Finally, Cenoz et al. (2014) states that these research needs to be classroom-based.

As for CLIL methodology and the provision of CLIL education for teachers, research shows **the need to develop CLIL teacher education**. In fact, more research on the effects of CLIL teaching practices on students' learning is needed (Paran, 2013). The summarised results have consistently shown that teachers' qualification or knowledge for content and language integration have an impact on the methodology deployed in the CLIL classroom. However, lack of training may lead teachers to develop their CLIL pedagogy and materials through trial and error (Czura & Papaja, 2013). In fact, it has been found that not all content teaching is necessarily good language teaching (Cenoz et al., 2014; Genesee, 2004). The integration of language, subject area knowledge and thinking skills requires planning and monitoring (Swain & Lapkin, 2005). Due to the current situation, CLIL research agendas have called for a revision of teacher education for CLIL provision (Asikainen et al., 2010; Banegas, 2012; Cenoz et al., 2014; Coyle, 2007; Coyle et al., 2010; Dalton-Puffer, 2011, 2017; Dalton-Puffer & Smit, 2013; Marsh, 2002; Mehisto, 2008; Pérez-Cañado, 2016b, 2012).

According to these research agendas, **teacher education is essential for CLIL sustainability** (Coyle et al., 2010; Scott & Beadle, 2014). These programs should be competence-based and develop the required competences for the information age (Asikainen et al., 2010). This training should share good CLIL practices in order to describe and reflect on CLIL pedagogies (Cenoz et al., 2014; Coyle, 2007). CLIL teacher education, independently of initial or developmental, should take into consideration subject-specific genres and literacies (Dalton-Puffer & Smit, 2013; Nikula & Mård-Miettinen, 2014). Moreover, teacher education should provide the means so that practitioners could develop their understanding of integration (Coyle et al., 2010; Dalton-Puffer & Smit, 2013; Mehisto, 2008), as well as addressing the needs of learners, creating their own resources and including the use of interactive tools (Coyle et al., 2010). Finally, CLIL teacher education should consider stakeholders' perceptions and training needs (Pérez-Cañado, 2012, 2016b).

To conclude, current CLIL implementation has shown some lights and shadows. Even though CLIL teaching and learning has a great potential, the results also indicate that CLIL conceptualisation and the deployed methodology play a crucial role on the success of CLIL teaching and learning. It has been acknowledge the need to provide further teacher education, both initial and developmental, for CLIL realisation. Nevertheless, the results also seem to indicate that the

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reconceptualisation of integration and classroom pedagogy needs to be done both at the school and at the individual teacher's level. For this reason, the purpose of this doctoral thesis is to explore school-based conditions and teacher qualification for CLIL implementation. In the following chapters, the focus will be on CLIL implementation (chapter 3) and teacher education (chapter 4).

Chapter 3. School-based CLIL Implementation

The present chapter immerses on school-based CLIL implementation. To this end, the chapter starts conceptualising and characterising change from the perspective of three organisational movements: school effectiveness, school improvement and effective school improvement. From this revision, it will be stated how change is defined in the context of this doctoral thesis and what consequences it has for CLIL. Subsequently, it will be revised the current state-of-the-art relative to CLIL implementation. From here, the conditions for sustained educational changes will be reviewed and compared with CLIL evidences. Attention will be given to the potential challenges and barriers for educational change, in general, and, more specifically, for CLIL implementation. Finally, the role of leadership in school improvement and CLIL will be revised.

3.1. Conceptualisation and Characterisation of Change

3.1.1. Perspectives on Educational Change

The way *Educational Change* is defined is closely linked to what it is expected from this change; that is, where the focus is. For this reason, before conceptualising change, the different perspectives adopted to analyse change will be revised.

Three main approaches have been adopted to analyse change: school effectiveness, school improvement and effective school improvement. Even though all these three theories study school change, they conceptualise change in a different way. These differences are basically due to their objectives, focus and lines of research. For this reason, the purpose of this section is to describe the main characteristics of each movement to discuss in the next section (3.1.2.) the concept of change.

School Effectiveness

The movement *School Effectiveness* appeared in the 1960s as a reaction against some reports, such as the report *Equality of Educational Opportunity* (Coleman et al., 1966), better known as Coleman's report. This report concluded that schools and resources had little impact on students' performance and, therefore, the school did not help balance students' socioeconomic and cultural differences.

Consequently, the central argument of School Effectiveness research is that "schools matter, that schools do have a major effect upon children's development and that, to put it simply, schools do make a difference" (Reynolds & Creemers, 1990, p. 1). Despite being acknowledged

that students' background determine their attainment levels, it is also recognised that schools in similar social circumstances achieve different levels (Sammons et al., 1995). For this reason, an **effective school** was defined as

One in which **students progress further than might be expected from consideration of its intake**. An effective school thus adds extra value to its students' outcomes in comparison with other school serving similar intakes. By contrast, in an ineffective school students make less progress than expected given their characteristics at intake. (Mortimore, 1991, p.78).

Therefore, the objective of School Effectiveness Research (SER) is to identify outperforming schools so as to distinguish the factors that are characteristic of effective schools (Sun, Creemers, & de Jong, 2007). For this reason, the focus of SER is on students and their characteristics, as well as their performance; that is students' level of attainment (Coronel, 2002). This analysis is done from a positivist paradigm.

The outcomes of SER are a list of characteristics of effective schools (Sammons et al., 1995; Sun et al., 2007), but little attention is given on how to get to this effectiveness. Although an initial assumption of SER was that if the factors that characterised effective schools were identified, they could be latter applied too other contexts. However, the truth is that the research outcomes seem to indicate that there is no simple combination of factors that can produce an effective school (Sun et al., 2007). Therefore, SER do not provide clear guidelines for the creation of more effective schools.

Despite some shortcomings of school effectiveness research, it has offered a list of characteristics of effective school which provides valuable information about 'where to go'. The characteristics of effective schools will be presented and discussed in the section 3.2.1.

School Improvement

The School Improvement movement also appeared during the 1960s as a reaction to the curricular and organisational reforms encouraged from outside the school (Murillo & Muñoz-Repiso, 2002). School improvement is seen as a branch of educational change (Sun et al., 2007). Since school effectiveness research did not provide clear guidelines on how to become an effective school, the efforts of school improvement research were on **the processes of change and taking the school as the centre of change** (Sammons et al., 1995; West & Hopkins, 1996).

Consequently, the objective of School Improvement was to "change the learning conditions and other internal conditions associated to one or more schools, with the aim to attain higher

educational goals more efficiently” (van Velzen, Miles, Ekholm, Hameyer, & Robin, 1985, p. 48). *Learning conditions* refer to the activities lead by teachers or other educational stakeholders that aim to attain the educational goals, whereas the *related internal conditions* refer to all the school’s aspects that are related to the learning conditions, such as the curriculum or staff recruitment (Hopkins, 1987b). Therefore, the aim of school improvement was not only to improve students’ learning, but to build capacity to manage change (Hopkins, Stringfield, Harris, Stoll, & Mackay, 2014); that is, considering both the classroom and the school’s perspective.

The main characteristic of School Improvement Research (SIR) is that the school is the centre of change. In other words, the change not only is leaded by the school, but also focused on the school’s culture to change education (Murillo, 2003). The focus is fundamentally practical, therefore the paradigm used for SIR has been Action Research (Coronel, 2002). The outcomes of SIR are the conditions for a sustained change. Nevertheless, SIR has gone through different stages: moving from understanding the organisational culture of the school and managing change to a systemic improvement (Hopkins et al., 2014).

Even though school improvement research has offered evidences of the process of change and its different stages, it is also true that the process of change is different for each school and, especially, it may be different for successful and failing schools (Stoll & Fink, 1999). However, some common stages have been identified. Stoll & Fink (1999) identify three stages: initiation, development and institutionalisation. Murillo and colleagues (2002; Murillo & Krichesky, 2012) identify five stages: initiation, planning, implementation, evaluation and institutionalisation. What all models have in common is that before implementing a school improvement, it is important to plan the change. Additionally, the change will finish once it is institutionalised. The main criticism to school improvement movement is its strong focus on the process overlooking the results of this change (Coronel, 2002).

Effective School Improvement

Although school effectiveness and school improvement were two different movements, some scholars considered that these two traditions could be unified (Creemers & Reezigt, 2005; Murillo, 2003; Reezigt & Creemers, 2005; Sun et al., 2007; West & Hopkins, 1996) since each movement could benefit from the other. For instance, while school effectiveness research aimed to identify the characteristics of effective schools, school improvement research attempted to introduce these characteristics in education. Therefore, school effectiveness tradition provided evidences and explanations that could be used as knowledge for school improvement research.

Additionally, school improvement research could test these theories (Creemers & Reezigt, 2005). For some other scholars, school effectiveness can only be achieved through school improvement:

To achieve increased effectiveness, there will have to be changes in both learning conditions and related internal conditions, as well as improvement in what is called the school organisational and pedagogical capacity (Hopkins, 1987, p. 3).

In order to join these two movements, the concept *effective school improvement* was coined. Effective school improvement was defined as

a planned educational change that enhances student learning outcomes as well as the school's capacity for managing the change. The addition of the term 'managing' emphasises the processes and activities that have to be carried out in the school in order to achieve change/improvement (Creemers & Reezigt, 2005, p. 361).

Therefore, the objective of effective school improvement is to know **how a school can carry out satisfactory processes of change that increase the learning of all students optimising the teaching and learning processes and the organisational structures of the school** (Murillo, 2003). That is, knowing what the goal is and how to attain it. Consequently, according to Hoeben (1998), to evaluate an effective school improvement, it is needed an effectiveness criterion (do students achieve better learning outcomes?), as well as an improvement criterion (does the school manage change successfully?).

The focus of effective school improvement is the teaching and learning process: the teachers, curriculum, learning processes and school intended conditions. A characteristic of this movement is that change is characterised by the context. Apart from establishing the final goal, some short-term objectives are also stated. Additionally, the concepts *culture of change*, *improvement process* and *results' improvement* are essential for an effective change (Murillo, 2003; Murillo & Krichesky, 2012). Table 7 summarises the main characteristics of each of the three movements focused on school change with the aim to compare the similarities and differences between school effectiveness, school improvement and effective school improvement. For the purpose of this doctoral thesis, the characteristics of effective schools, as well as the conditions for school improvement will be considered. It is believed that the purpose of any educational change must be students' learning, but also schools need to be able to manage and sustain this change. For this reason, when studying school-based CLIL implementation, an effective school improvement perspective will be adopted.

Table 7. Comparison of the three main perspectives about Educational Change.

	School Effectiveness	School Improvement	Effective School Improvement
Origin	·Reports, such as Coleman’s report, that stated that schools had no impact on students’ learning.	·A reaction to external reforms.	·Integration of the two previous lines of research.
Aim	·To distinguish the factors that characterise effective schools.	·To study how schools become successful.	·To know what the characteristics of effective schools are and how to make an effective school.
Focus	·Students and their characteristics. ·Students’ performance. ·Focus on the product/result.	·The process of change. ·The school as an organisation.	·The school and the teaching and learning process.
Characteristics	·Development of criteria that characterise effective schools. ·No focus on applying these criteria. ·Quantitative focus.	·Conditions for change. ·The school as a centre of change. ·Major teachers’ involvement. ·Importance of context.	·The change is determined by the context. ·The central concepts of ‘culture of change’, ‘improvement process’ and ‘results’ improvement’ are essential.
Conceptualisation of Change	·Change to become an effective school.	·Change as a dynamic process with different stages.	·Change as a process and the result of this process.

Source: Own Elaboration.

Once the three main perspectives on educational change have been reviewed, change is going to be conceptualised in the next section.

3.1.2. Conceptualisation of Change

The use of the terms *change*, *innovation*, *reform* and *improvement* is not absent of controversy. Depending on the movement each author belongs to, these terms are used interchangeably or they are used independently because the terms refer to different realities.

In this vein, the term **change**, in general terms, can be defined in three different ways. Some scholars, as Coronel (2002), consider *educational change* as a category that encompasses more specific concepts such as innovation, reform and improvement. According to this author, the purpose of encompassing all these concepts within the same label is to show the importance, complexity and difficulty of any of these processes when they take place in educational organisations. On the other hand, other scholars conceptualise change as the process to build

personal and organisational capacity⁹ to know what, how, when and why carry out this change (Antúnez, 1998; Fullan, 1985; Hargreaves, 2005). Therefore, *educational change* is a process that aims to help schools to plan the attempts to improve the reflection and the action so that the schools can achieve their goals efficiently by modifying some structures, programmes or practices. A third group of scholars understands change as a process that implies intentional and systematic, as well as natural modifications, but also change is the result of these processes (Murillo & Muñoz-Repiso, 2002). Therefore, from the analysis of the three ways of understanding change, it can be concluded that the three of them understand **change as a process**. However, the term process implies different things: for some of them change is a process that encompasses all the modifications that occur in the school; for others change is the process to build capacity and, finally, for the other group of scholars change is a process, but also a result.

As for **Innovation**, the first group of scholars uses the terms change and innovation interchangeably. Therefore, innovation is defined as a series of interventions, decisions and processes with a certain degree of intentionality and systematisation that aim to modify attitudes, ideas, cultures, contents, organisation models, pedagogical practices and elaboration and development of programs, among others. All these actions aim to benefit students' learning (Carbonell, 2010; Escudero, 2014). According to Escudero (2014) there are three types of innovations: official (top-down innovations); unofficial (bottom-up innovations); and absent (innovations that are necessary, but they do not happen). For the second group of authors, an *educational innovation* is the result of the design and application of the planned changes; they emerge as a consequence of the new designs and applications (Antúnez, 1998). In short, they are the result of the process of change. Regarding the third group of authors, an *educational innovation* is a type of change, but not all changes are innovations. For a change to be considered an innovation it is necessary that something new or different appears as a response to some objectives and an action plan. An innovation is a process of change developed by a teacher or a group of teachers that modify the contents, introduce new methodologies or use new resources or technologies to improve the teaching and learning process. Therefore, the natural habitat of the innovation is the classroom (Murillo, 2003). In short, all three groups of authors conceive innovation as a **concept related to change**. However, while some authors

⁹ Capacity is defined here as "a power –a 'habit of mind' focused on engaging in and sustaining the learning of people at all levels of the educational system for the quality that allows people, individually and collectively, routinely to learn from the world around them and to apply this learning to new situations so that they can continue on a path towards their goals in an ever-changing context." (Stoll, 2009, p. 15)

consider that innovation is the same as a change, others believe that innovation is the result of a change or a specific type of change. Additionally, it is worth noting that while the second group of authors define innovation as the result of change, the third group of scholars consider that an innovation is the first step for a change to occur.

All authors seem to agree that the term *reform* refers to a top-down change that affects all the educational system. However, while the first group of authors believe that a reform, at the end, is a change, the last group of scholars believes that the term reform should be used for specific types of change. According to Murillo (2002), a reform is an intentional and deep change in an educational system that gives an answer to a specific educational policy that aims to last. The reform comes from the State or the Educational Administration and it is established in a law.

Finally, the term *improvement* is understood as a synonym of change and innovation for the first group of authors. For the second group of scholars, change is the way to achieve school improvement since improvement is defined as “a series of concurrent and recurring processes through which different partners collaborate to enhance students’ experiences and outcomes, while creating the capacity to take charge of change and sustain learning” (Stoll, 2009, p. 15). For the last group of authors, improvement is a process of change in which the school or a group of schools are the centre of change. School improvement implies a systematic and continuous effort to change the learning and other conditions to effectively achieve educational goals (Murillo & Muñoz-Repiso, 2002, based on Van velzen et al, 1985, p. 48). Again, improvement is conceptualised differently since it is used either as a synonym of other close terms (p.e. innovation or change) or to refer to a specific type of change.

Therefore, considering the definitions of the terms change, innovation, reform and improvement, as well as how CLIL has been defined in the previous chapter¹⁰, **the terms change innovation and improvement will be used differently to refer to CLIL**. The term *change* will be used to refer to the capacity-building processes and conditions that are necessary to successfully implement and sustain CLIL (the process and the students’ results). Whereas, *innovation* will be used to describe the actual teaching and learning practice that is modified, that is the integration of content and language. *Improvement* will be used to refer to the potential organisational, teaching and learning gains obtained due to the implementation of CLIL.

¹⁰ CLIL is understood as an educational approach where some curricular content is taught integratively with a *foreign* language to students participating in some form of mainstream education aiming at the acquisition of both content and foreign language (definition adapted from Hüttner & Smit, 2014).

However, it is considered that, even though a terminological differentiation is made between change and innovation to distinguish the process of change and what is changed, these two elements are strongly intertwined and affected by one another. Consequently, a sustained and effective school improvement will be the result of a process of change, which will be determined by the innovation, and which is intended to have a positive impact on students' learning and school's practices (Figure 9).

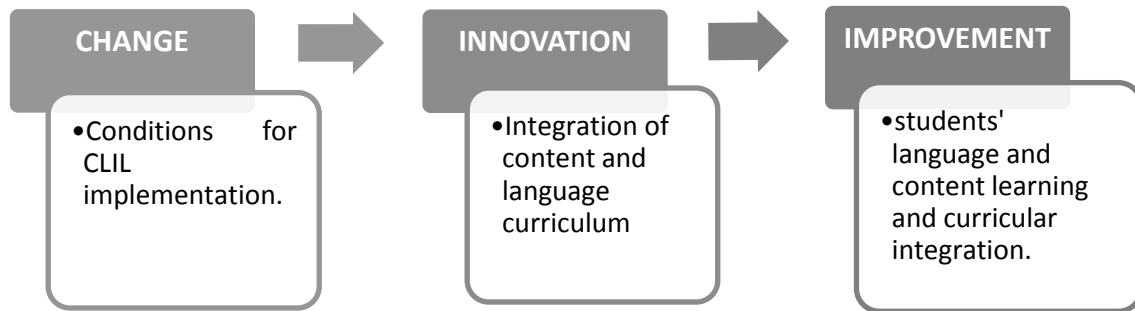


Figure 9. Relationship between the elements involved in school-based CLIL implementation.

Additionally, an especial emphasis to the process (change) is been made in order to strengthen the idea that CLIL is not just the simple translation of what is done in the school's lingua franca to an additional language by an individual teacher, but the result of a collective process to modify a school's practice with the final aim to positively affect students' learning and improve pedagogical and organisational practices.

Moreover, change is slow and a non-linear process (Fullan, 1985) and it is the result of recurrent and convergent processes (Hopkins, 1987a). Indeed, previous studies have characterised change as a crisis generator (Antúnez, 1998; Fullan & Miles, 1992), especially in the first stages when it tends to provoke anxiety and uncertainty (Fullan, 1985). Therefore, changes and innovations need time to be developed and their results are not dichotomous (e.g. positive or negative, good or bad) (Escudero, 2014). Fullan (2003), in his *complexity theory*, characterises change as non-linear and unpredictable. However, provided that interaction exists, this scholar states that change can lead to a catalyst, increase motivation and have a positive effect in other domains.

Even though the process of change is different for every school (Coronel, 2002), some stages are identified for educational change. Stoll and Fink (1999) identify three stages: initiation, development and institutionalisation. The first stage, **initiation**, consists of deciding whether a change is necessary. The decision will depend on the change's relevance (need, quality, feasibility, clarity and complexity), the personal disposition to be involved in the process of change, the available resources and support and the potential solutions. The initiation stage

should finish with a plan that establishes the process to follow. In the case of CLIL, the first step will consist of analysing whether a change in the way the additional language is taught is necessary and whether the CLIL approach is the best solution for the school's challenges. For this reason, it will be necessary a needs analysis of students' results, pedagogical practices, available human resources (total amount of teachers qualified to teach through a foreign language and total amount of teachers that are willing to be involved in this project), available learning and economic resources or CLIL's impact on the school organisation (organisation of the curriculum, pedagogical practices, time, space...). Therefore, devoting enough time to this first stage, especially the availability of enough qualified teachers (Eurydice, 2017a; Scott & Beadle, 2014) is paramount to ensure CLIL sustainability.

The second stage, *development*, consists of the first attempts to carry out the change. In this stage, it is important that the responsibility and control is shared and that there is support and personal and collective learning. Additionally, continuous monitoring of the process of change is also necessary. For CLIL, collaboration and shared responsibility are especially important because this innovation implies integrating two curricular subjects that traditionally have been taught separately by different teachers. Additionally, the integration of content and language should not be exclusive of the additional language, but for all school languages. Therefore, there should be a shared understanding and agreement on how languages should be taught and learnt in the school. This implies that some objectives and an action plan must be established at the school level. Moreover, this action plan must be carefully monitored and evaluated along the process.

The last stage, *institutionalisation*, consists of including the innovation within the school existing practices through the school management team support, structural changes, the involvement of the school's staff, the continuous evaluation, peers' support, as well as introducing the innovation in the school's project. In the specific case of CLIL implementation, it would be necessary an adaptation of the school's project with an especial emphasis on the linguistic project.

Murillo and Krichesky (2012) divide these three stages into five: initiation, planning, implementation, evaluation and institutionalisation. However, independently that the three or five stages model is used, the focus should be on acknowledging that **CLIL implementation is a process that needs to be carefully planned before implementing it, as well as monitored and evaluated**. Even though school-based CLIL implementation will ideally follow these stages, these processes will not be linear, but recurrent and convergent (Hopkins, 1987b). Nonetheless, for

sustained CLIL implementation, some conditions are necessary to carry out this process and ensure its institutionalisation. For this reason, in the following section, the conditions for a successful change will be revised and discussed.

3.2. School-based Conditions for CLIL Implementation.

CLIL implementation has been encouraged by the Council of Europe (1995), as well as the state and regional governments. However, the rapid widespread of this educational approach has also been the result of individual initiatives of school communities, teachers and parents (Ruiz de Zarobe, 2013). All these initiatives, ultimately, have aimed to improve foreign language learning since there was not a strong concern regarding content subjects' outcomes (Kiely, 2011). Even though CLIL has been quickly implemented along Europe and its implementation has gone through the European borders, research on how CLIL is being implemented at the school level, what conditions are needed, as well as what challenges schools are facing is still scarce (Doiz & Lasagabaster, 2017; Kiely, 2011; Nikula et al., 2013). In addition, the studies analysing the impact of CLIL teaching on students' language and content learning have tended to overlook how the implementation of the programme may affect the learning outcomes. Therefore, identifying the favourable conditions for school-based CLIL implementation, as well as understanding how it is done is essential.

The implementation of CLIL projects, as any other innovation, causes some disjuncture between what is being done in the school and the new project. Therefore, it is necessary to recognise and reflect on this disjuncture (Mehisto, 2008), but also on the conditions that favour its implementation. Much of the work done on CLIL implementation has been either at the theoretical level, focused on the classroom or on general descriptions of how CLIL is implemented in the different states or regions. However, the exploration of how schools establish a CLIL project and the involved processes is still scarce (Doiz & Lasagabaster, 2017; Soler et al., 2017). Therefore, the already obtained results on students' achievement in CLIL contexts have to be interpreted with caution because the studies do not always report the contextual characteristics of the study or the characteristics of the CLIL project are not considered (Cenoz et al., 2014). Nevertheless, previous studies on school organisation have shown how the organisation may potentially impact on improving the quality of teaching and learning (European Commission, 2012b). In addition, Sylvén (2013) found that the presence of some policies and research, as well as the training provided to teachers and the amount of exposure to the target language outside the school explained some of the variations between CLIL outcomes in different countries.

The report *Content and Language Integrated Learning (CLIL) at school in Europe* (Eurydice, 2006) was the first official document describing the peculiarities of CLIL implementation at the European level. At that time, almost all European countries offered some sort of CLIL programme, although CLIL only existed in a pilot form in some countries. This report revealed that, as for foreign language use, English, French and German were the most widespread foreign languages in CLIL provision. Regarding the students participating in some form of CLIL provision, the study showed that while in some countries or regions CLIL was provided in mainstream education, in other countries or regions specific conditions to access and select students participating in CLIL provision were established. In terms of the selected content subjects, it was found that **science subjects, social science, artistic subjects and physical education** tended to be the most common for CLIL provision. A great variability was found for the time devoted to CLIL provision and the level.

Despite the relevance of Eurydice's (2006) report, it confirmed something that was already evident: CLIL programmes and CLIL implementation varied considerably not only between countries, but within countries and even regions. This fact, already noted in chapter 2, is both considered a drawback and a potentiality. It is considered a drawback because it is difficult to transfer the evidence obtained in one context to another and to obtain conclusive findings. On the contrary, the flexibility of CLIL is regarded as one of the potentialities of this approach because it enables to adapt CLIL to the characteristics of each country and school. In fact, some scholars believe that this flexibility is what has favoured the rapid widespread of CLIL (Coyle, Hood, & Marsh, 2010; Mehisto, Marsh, & Frigols-Martín, 2008).

The results of Eurydice (2006) report were updated by the report *Key data on teaching languages at school in Europe* (Eurydice, 2012). Again, this report confirmed that nearly all countries provided CLIL through a foreign language, although this approach was not widespread across educational systems. The foreign languages used the most for CLIL provision were still English, French and German, followed by Spanish and Italian. In addition, most of the European countries providing CLIL did not have official recommendations or regulations for CLIL implementation. This partially explains why the same educational approach varied within the same region. In fact, this is the case of Spain, since the central government and, in some cases the regional governments (e.g. Catalonia) do not state any recommendations relative to CLIL language, the level, grade or the students that can participate in CLIL provision.

In the same line, the new edition of this report, *Key data on teaching languages at school in Europe* (Eurydice, 2017a), shows that some aspects of CLIL implementation have not changed during these five years. These aspects are:

- a) CLIL is offered in almost all European countries, but it is not an extensive practice of the educational systems. Some schools offer CLIL provision.
- b) The additional language depends on the linguistic background of the country.
- c) English, French and German are the most widespread target languages for CLIL provision. At the same time, these languages are the foreign language generally taught in European schools.
- d) CLIL provision is found at all educational levels.
- e) There is not a tendency to offer official central recommendations to select CLIL students. Each school adopts their own criteria.

This report also states that the main threat for CLIL implementation and its sustainability is the lack of qualified teachers. However, there could be some organisational barriers that are not considered because there is a shortage of research evidences on school-based conditions and barriers for CLIL implementation, the following subsection will revise what previous literature has found about the characteristics and conditions of effective schools and school improvement and how these conditions relate to school-based CLIL implementation.

3.2.1. Conditions for School Change

From the outlined above, it can be inferred that educational change is challenging and it is even more challenging to make long lasting changes (Hall, 2013). It has become quite common that the need for a change is identified, some actions are taken, but either the students' results are not the expected ones or the change is not institutionalised and, eventually, fades away. It is believed that if a school does not improve and becomes effective, it just goes back (Fullan, 2003). Creating changes in education is easy, but not necessarily these changes are improvements (Levin & Fullan, 2008). Additionally, changes are sometimes implemented without analysing what is needed for the change to be effective (Hargreaves & O'Connor, 2017). Therefore, because of the impact school has on students' performance, it is necessary to know what conditions encourage sustained school change that leads to school improvement and, therefore, make effective schools.

A field of educational research has focused on analysing and identifying what conditions lead to a sustained change; that is, what conditions build capacity for continuous improvement and,

therefore, changes last overtime and deepen (Fullan, 2003). School Effectiveness research focuses on identifying the characteristics of effective schools, whereas School Improvement research explores the factors related to improvement processes. Sammons et al. (1995) reviewed previous research on effective schools and summarised the main characteristics of effective schools. On the other hand, Fullan (1985) summarised the factors that address the dynamics of school organisation (Table 8). The conditions and characteristics identified by these two studies will be used to analyse school-based conditions for CLIL implementation. These two studies were selected because they synthesise previous research and have been used as a reference for later studies. Despite these conditions are presented in isolation, researchers on educational change agree that a school change is only effective if it considers the school as a whole (Fullan, 1985; Gairín, 2000; Hargreaves, 2003; Murillo, 2002; Sammons & Bakkum, 2011; Sancho, 2002; Sun et al., 2007).

Table 8. *Conditions for a sustained change.*

CONDITIONS FOR A SUSTAINED CHANGE	
SCHOOL EFFECTIVENESS (Based on Sammons et al., 1995)	SCHOOL IMPROVEMENT (Based on Fullan, 1985)
<ol style="list-style-type: none"> 1. Professional Leadership. 2. Shared vision and goals. 3. Focus on teaching and learning. 4. Monitoring progress. 5. Collaboration. 6. Involvement of Educational Community. 7. Learning organisation. 8. Effective use of resources. 9. Teacher qualification. 10. Communication. 	<ol style="list-style-type: none"> 1. A feel for the process of leadership. 2. A guiding value system. 3. Intense interaction and communication. 4. Collaborative planning and implementation. 5. Allocation of resources.

Source: Own elaboration from Sammons et al. (1995) and Fullan (1985).

Even though Fullan (1985) conditions include Sammons et al. (1995) conditions (e.g. A guiding value system includes shared vision and goals, focus on teaching and learning), the conditions established in Sammons et al. (1995) study will be used. The reason why these conditions are used is because they are more specific and, therefore, it is clearer what each condition includes and implies. However, although school effectiveness conditions are used, school improvement research will be also reviewed because an effective school improvement perspective is adopted, as stated above. Therefore, the ten conditions established in Sammons et al. (1995) study will be reviewed in isolation using school effectiveness and school improvement research and, then, the specificities of these conditions for CLIL will be discussed. Despite these conditions will be presented in isolation, they are intertwined. The revision of educational change research will

also be based on the referents of this field of research because their studies still apply and are currently valid.

3.2.1.1. Condition 1: Leadership

All research on school change points *leadership* as a necessary conditions to empower the school towards change and improvement (Fullan, 1985; Hopkins et al., 2014; Levin & Fullan, 2008; Murillo, 2002; Sun et al., 2007). In fact, one of the characteristics of innovative schools is the existence of leadership that encourages this change (Sancho, 2002) and leads the professional learning community (Bolívar, 2016).

Even though it is believed that effective leadership has an impact on students' learning (Hopkins et al., 2014), not all types of leadership have the same positive effect. An effective leadership has a **focus on curriculum and pedagogy** (Hopkins, 1987b), as well as **monitors, involves** and informs the school's staff, **adapts the change** to the school context¹¹ and culture¹² and links a specific change to the other projects of the school (Levin & Fullan, 2008). Indeed, Murillo (2015) found that students' results are better when the school leaders are focused on educational tasks.

Different schools may need a different type of leadership. The type of leadership may vary in a given school depending on its situation. However, it appears that distributed leadership is the most effective type of leadership (Hallinger & Heck, 2010). Additionally, effective leadership has proved to be **firm and purposeful, participative and supportive** (Sammons et al., 1995).

With regard to **CLIL leadership**, some theoretical studies revising the conditions for sustained CLIL implementation also refer to leadership as "critical for successful dual-language teaching" (Genesee & Hamayan, 2016, p. 228). Indeed, successful school-based CLIL implementation appears to rely on distributed leadership (Soler et al., 2017). School leaders need to see themselves as **part of the CLIL team** (Mehisto et al., 2008), understand the implication of CLIL so as to provide the school-based conditions to sustain this innovation, such as fostering collaboration and empowering teachers (Genesee & Hamayan, 2016; Soler et al., 2017). To avoid collaboration barriers and fears, school leaders should devote the same attention to both CLIL and non-CLIL teachers and establish some workshops where CLIL and non-CLIL teachers can share their work (Mehisto, 2007).

¹¹ School context refers to the environmental and organisational conditions that affect the school's capacity for improving students' learning (Hallinger & Heck, 2010).

¹² School culture refers to what members of this community do and think, as well as the relationships they establish between them and the context (Murillo, 2002).

Some schools use the figure of a **CLIL coordinator or a driving group** to support and monitor the project (Marsh, 2013; Pavón Vázquez, 2014; Ruiz-Garrido & Gómez, 2009). The CLIL coordinator, alongside the school management team, can provide the structures that facilitate constant dialogue and breaking down barriers between departments (Ioannou Georgiou, 2012; Mehisto; 2007; Pavón-Vázquez, 2014; Wiesemes, 2009) to maintain support, collaborate and deal with the challenges that may arise (Ioannou-Georgina & Pavlou, 2011), as well as help stay on track and return to the vision and strategic plan (Mehisto, 2007). It is important that there is a established scheduled for content and language teachers to meet, plan and create materials (Geafell & Unterberger, 2010).

Due to the importance school leadership has on students' learning and sustained CLIL implementation, a special section of this chapter will be devoted to leadership (section 3.3). In this section, it will be reviewed and discussed the role that leadership has in creating the right conditions for school change.

3.2.1.2. Condition 2: Shared vision, goals and a guiding value system

Another important condition for a change to succeed is its management (Fullan & Miles, 1992; Gairín, 2000). For this reason, a shared vision, goals and a value system is very important (Fullan, 1985; Sammons et al., 1995). Schools and teachers need to share the same vision about the teaching practice and students' learning (Bolívar, 2016). Stoll and Fink (1999) state that, in terms of students learning, effective schools are those that the teaching staff and the other members of the community share similar values and a collaborative culture. According to previous studies, schools are effective mainly for three reasons: there is a **shared involvement** regarding the educational goals and priorities; the emphasis is on **improving students learning**, and there is a **positive learning environment**.

For a change to be sustainable, it must represent a **real need** to improve students' learning and the change must have the **support of the school's staff** (Antúnez, 1998, 2006; Gairín, 2004; Gairín & Muñoz-Moreno, 2008; Stoll & Fink, 1999). For this reason, any process of change should start with an evaluation in order to identify needs and problems in which the improvement has to impact. This initial evaluation should start from what happens in the classroom to the school level so that the solutions influence classroom practices (Bolívar, 2016). The whole community needs to collaborate in self-reflection processes so as to design and implement processes of change that are achievable for a specific organisation (Gairín, 2000). As Santos Guerra (2010) claims, independently of the good intentions each person can have, none sustained change will occur if each member of the teaching community works towards a different goal.

Once the need of change is agreed, it is important to establish the **school's goals** which must be limited, ambitious and achievable (Levin & Fullan, 2008) and indicate where the school wants to go (Bolívar, 2016). In fact, it appears that schools can only improve when they have a clear direction where to go (Coronel, 2002). Apart from planning the aims, these should be disseminated between the school community (Hopkins et al., 2014).

Not only is it important to agree on the goals, but also to put in practice these aims through collaborative ways of decision-making (Sammons et al., 1995). Therefore, it will be necessary to devote time to **plan the change** (Antúnez, 1998; Fullan, 1985, 2003; Gairín et al., 2009; Gairín, 2000; Levin & Fullan, 2008; Santos Guerra, 2010) in terms of what is required (resources, time...) and what the change entails. An innovation needs a minimum of three years to be implemented and five to ten years are necessary to carry out deep reforms (Stoll & Fink, 1999). However, this planning will need to be flexible enough in order to adapt it to the unexpected or unplanned events that may arise during implementation. This general planning and the decision-making processes should allow teachers to agree and adhere to common approaches (Sammons et al., 1995).

If the change is to be spread and institutionalised, it is important to consider the school's culture and practices in the planning (Sun et al., 2007). For a change to be sustainable, it needs to consider the **previous practices and the culture of the school** (Antúnez, 1998; Gairín & Muñoz-Moreno, 2008; Santos Guerra, 2010; Stoll & Fink, 1999), as well as the value system (Fullan, 1985, 2003; Santos Guerra, 2010). For this reason, the planning will also need to consider how the innovation is going to be sustained and spread, and how it is going to be institutionalised (Fullan, 1985, 2003). Finally, this planning needs to be written down so that it is possible to go back to it, revise it and, more importantly, ensure that the project does not disappear (Santos Guerra, 2010). In the case of Catalonia, the previous practices and culture of the school is synthesised in the **Educational School's project** (LEC 12/2009, de 10 de juliol).

In the same line as school change research, previous studies on **CLIL** have suggest that the first step, before deciding whether a **CLIL programme** should be implemented, is carrying out a **needs analysis**. This needs analysis should identify why a CLIL project is the best solution for the needs of the school and if the school's capacity is enough to start the project (Butler, 2005; Coyle et al., 2010; Pavesi, Bertocchi, Hofmannová, & Kazianka, 2001; Pavón-Vázquez, 2014; Ruiz-Garrido & Gómez, 2009; Tucker, 1998). This need analysis should identify learners' characteristics (English level, level, needs, cognitive development,...), the needed and available resources (human and material), acceptance among the different stakeholders, time available

for CLIL teaching and learning, the use of students' L1 or other school languages, revision of previous literature, among other aspects. Concurrently, it needs to be discussed what is understood by CLIL (Mehisto & Genesee, 2015) since, as it was reviewed in chapter 2, there are different ways of conceptualising CLIL. However, how CLIL will be implemented will strongly depend on how this approach is understood (Coyle et al., 2010).

Another condition for favourable CLIL implementation is **adapting the CLIL programme** to the school context (Pavesi et al., 2001; Ruiz-Garrido & Gómez, 2009) and connect it to the school's development (Yang & Gosling, 2014). CLIL needs to be considered as a strategic development and as a school reconceptualisation of language teaching and learning (Mehisto & Asser, 2007; Wiesemes, 2009). "CLIL programmes are whole-school matters: they involve the school as an institution and its various stakeholders groups, including learners, parents and teachers" (Ball, Kelly, & Clegg, 2015, p.254). The adaptation of CLIL needs to consider what subject will be taught through CLIL, at what level, the methodological approach to be used and the time devoted to CLIL, the cognitive demands (Ball et al., 2015; Butler, 2005; Coyle et al., 2010; Pavón Vázquez, 2014), learners' language proficiency and the expected outcomes (Met, 1998), but most importantly how **integration is understood** and how it is going to be developed in the classroom (Coyle et al., 2010).

All language education programmes should be guided by a clear notion of long term goals and specific learning outcomes that students are expected to attain. Making decisions about content requires careful consideration of what students will be expected to be able to do in the second language, and how content teaching can contribute to helping students achieve the goals of the language programme. (Met, 1998, p.44).

Consequently, the definition of integration will probably affect the **curricular approach** since the contents and learning outcomes will need to be integrated and not compartmentalised in isolated curricular subjects (Mehisto, 2007). Nevertheless, how curriculum and disciplines are conceptualised could also affect CLIL definition.

This decision-making process will have to be done at the school level and, as Santos Guerra (2010) states, written down in the school's documents, especially the **school's educational project** (Pavón Vázquez, 2014). Since CLIL implies integrating at least two curricular subjects, it will have to be established how this integration will be done, how the subjects will be selected and what contents will be integrated. Additionally, CLIL implies understanding language as both the content to be learnt and the means for learning. This cross-curricular approach should be the same not only for the additional language, but for all the school's languages. Thus, it should be

clearly stated in the **school's linguistic project** what approach will be used for language learning and use. The school's linguistic project is a compulsory document in Catalonia in which schools establish the role of the Catalan language, how the school deals with the different languages (both the curricular and non-curricular languages) and the organisation and management of language related issues (Departament d'Ensenyament, 2017).

However, there is scarce available evidence about the process a school should follow to plan CLIL implementation, the decisions to be made in terms of language and integration or the inclusion of this project in the school's official documents. Some scholars have asked for an extensive and compulsory use of schools' language projects when CLIL is implemented (Doiz & Lasagabaster, 2017).

3.2.1.3. Condition 3: Focus on teaching and learning

The purpose of any educational improvement must be the equity principle; that is, every single student must have the opportunity to acquire a minimum shared capital (Bolívar, 2016). Consequently, the focus of change must be on affecting teaching and learning (Black & Wiliam, 1998). However, the challenge for educational change appears to be affecting the teaching-learning process at the classroom level (Hopkins et al., 2014). Previous research on school effectiveness and school improvement highlighted different dimensions to affect the teaching-learning process: a) focus on curriculum; b) the creation of a learning environment; c) purposeful teaching and d) establishing high expectations.

If the change is to positively affect students' learning, a **strong focus on teaching and curriculum** is necessary (Fullan, 1985; Fullan, 2003; Gairín et al., 2009; Gairín & Muñoz-Moreno, 2008; Stoll & Fink, 1999) because the final aim needs to be whole school-system improvement. For this reason, special attention must be given to the type (personal, social, affective and cognitive) and quality of the experiences provided to students (West & Hopkins, 1996). Moreover, the focus must be on the maximisation of learning time, learning and achievement (Sammons et al., 1995). Therefore, strategies to improve the curriculum must be considered (Stoll & Fink, 1999) so as to design and develop a sensible and evaluative curriculum (Coronel, 2002).

Research on school effectiveness seems to indicate **that school's climate and culture** have an impact on students' learning (Sun et al., 2007). In fact, some differences on students' outcomes appear to be related to the school's climate, culture or ethos (Hopkins, 1987b). For this reason, it has been emphasised the idea of **the school as a learning environment**. According to Sammons et al. (1995), an effective learning environment is characterised for an orderly atmosphere and an attractive working environment.

The focus on students' learning has consequences on teachers' practices. School effectiveness and school improvement research indicate that quality teaching and learning are central in improvement processes and are characteristic of effective schools (Hopkins et al., 2014; Murillo, 2003; Sammons et al., 1995). **Purposeful teaching** is characterised by an efficient organisation of the learning time, clarity of purpose, structured lessons and adaptive practice (Sammons et al., 1995). This implies that teachers are able to plan and implement learning experiences, at the same time that are able to manage the classroom and adjust their practice to students' needs. Apart from this, teachers' profound knowledge of their subject and pedagogy is a prerequisite for effective teaching and learning.

Finally, research evidence seems to indicate that **high expectations** on students' performance is another characteristic of quality teaching-learning processes (Hopkins, 1987a; Murillo, 2002; Sammons et al., 1995; West & Hopkins, 1996). Not only are teachers' high expectations important, but also parental and students' expectations. Apart from having these high expectations, teachers must make them explicit and provide learning challenges for all students (Sammons et al., 1995).

Regarding **CLIL** evidences, despite some general references that mention the importance to focus on both language and content, to the best of our knowledge, there are only some general evidence that report that successful CLIL programmes focus on language learning and establish high expectations (Navés, 2009; Robledo-Montecel & Cortez, 2002; Robledo-Montecel & Danini, 2002). On the other hand, Yang & Gosling's (2014) study found that effective CLIL programmes have mechanisms to develop the curriculum. In the same line, Turner (2015) found that when the curriculum related to school's structures, it had a positive impact on teachers' decisions about integration. However, scarce evidence is available on how school-based decisions affect students' learning in CLIL. Most studies analysing the effect of the teaching practice on CLIL learners' outcomes are focused on the classroom and the practices of a single teacher. The main findings of these studies have been summarised in the previous chapter. This lack of evidences probably is the result of the absence of studies on school-based CLIL implementation.

Regarding **conceptualising integration**, it seems that the disciplinary orientation (higher or lower) and language pedagogy (visible or invisible) determines how CLIL is conceptualised (Leung & Morton, 2016). However, a real focus on integration should not only be an issue for bilingual teachers education, but for any teacher. In fact, for integration to occur, it must evolve at all levels: the curricular planning, teachers and learners' perceptions and beliefs and classroom pedagogy. This integrated approach will only be successful if it considers the needs and

challenges of the content subjects, language contexts and participants (de Graaff, 2016). The need for reconceptualising integration not only for CLIL purposes, but at the school level has been already pointed out by different research agendas (Asikainen et al., 2010; Coyle et al., 2010; Dalton-Puffer & Smit, 2013; Marsh, 2002; Mehisto, 2008; Pérez Cañado, 2016b).

3.2.1.4. Condition 4: Monitoring the process

Monitoring the process and evaluating the obtained results are a characteristic of effective schools and improvement processes (Fullan, 1995; Fullan, Rincon-Gallardo, & Hargreaves, 2015; Hopkins, 1987b; Murillo, 2002, 2003; Sammons et al., 1995; Sun et al., 2007). Change and its impacts must be carefully monitored and evaluated (Bolívar, 2016) if the change is to be based on a shared vision, goals and guiding value system, as stated in condition two, that have to be sensitive to the context, as well as students and organisational learning are the final aim. This evaluation needs to be based on both internal self-evaluation and external evaluations so that the outcomes of these evaluations can strengthen the teaching practice and students' learning (Bolívar, 2016; Fullan et al., 2015). It is essential to know why this new way works better (Hargreaves, 2005) and what the attained processes, progress, achievement and development are (Stoll & Fink, 1999). Therefore, **monitoring and evaluation** need to be present throughout all the process in a cyclical form: from the moment when it is decided whether a change is necessary to the institutionalisation of the change (Bolívar, 2016; Bollen, 1987). This monitoring needs to be focused on problem-solving (Antúnez, 1998; Fullan, 2003; Fullan et al., 2015; Gairín et al., 2009). Consequently, an **evaluation system** that allows to analyse how the innovation is working in terms of students achievement, school learning and resource management is necessary (Fullan, 1985; Hargreaves, 2003; Santos Guerra, 2010; Stoll & Fink, 1999). According to Santos Guerra (2010), institutional self-evaluation should be based on four principles:

1. An environment in which evaluation is perceived to be necessary should be created.
2. Evaluation should be the responsibility of the assesses.
3. Evaluation should be based on ethical commitment.
4. Evaluation needs to be focused on organisational learning.

Therefore, this evaluation system has to anticipate what information should be gathered and how in order to monitor students and school's performance. But, above all, this monitoring needs to allow to close the gap between reflection and action (Bollen, 1987).

An institution that is closed to self-evaluation is sentenced to repeat its routines, perpetuate its errors, and maintain its limitations. It is the same institution the one that asks how the school works, how the project works and how the initial planning is being

developed. It is the institution the one that, based on the evidences, makes the decision to change (Santos Guerra, 2010, p. 302).

Thus, the evaluation should not only focus on **pupils' performance** (Murillo, 2002; Sammons et al., 1995), but also on **school's performance** (Sammons et al., 1995). According to Sun et al. (2007), rigorous accountability is necessary to help schools to build capacity. Additionally, the collected data must be used to guide the change process (Bolívar, 2016; Murillo, 2003), but also to assess school's capacity for future change and plan its spread and continuation (Stoll & Fink, 1999).

With regard to **CLIL evaluation**, even though some research has addressed students' assessment in CLIL contexts (Hoenig, 2010; Leal, 2016), the truth is that research is more focused on how to assess language and content than how to use the information obtained to inform and improve the implementation of CLIL and students' learning. Nevertheless, Durán-Martínez and Beltrán-Llavedor (2017) state that, for CLIL programmes to be successful, they need to be globally and periodically assessed so that the project can be reoriented towards the established goals.

Some theoretical studies on CLIL implementation emphasise the importance of **evaluation** (Ball et al., 2015; Kiely, 2009) so as to reflect on how the initially stated goals and guidelines are achieved and how learners are dealing with CLIL (Butler, 2005), whether the programme is working and what factors have led to success. The evaluation of the programme has to document (Kiely, 2009) and inform all the educational community (Genesee & Hamayan, 2016). Again, however, as far as it is known, there is no empirical evidence on how the results of students and school's performance are used to improve CLIL implementation. Additionally, the research studying students' improvement in CLIL settings does not relate students' outcomes to school's organisational conditions. Nevertheless, the evidence that comes from CLIL settings seems to indicate that organisational aspects do explain the differences between high and low performing CLIL programmes (Yang & Gosling, 2014).

3.2.1.5. Condition 5: Collaboration

The identification of the need for change, the establishment of goals and the development of the plan are based on a **collaborative culture**. Collaboration is necessary for school improvement and it has important benefits on students' learning and teachers' practices (Hargreaves & O'Connor, 2017). If the school is the centre of change and an innovation must involve a whole-school change, collaboration becomes a cornerstone for school improvement. In fact, collaboration and collegiality are considered as one of the essential dimensions to establish a shared vision and goals (Hallinger & Heck, 2011; Sammons et al., 1995). However,

collaboration should not be seen as something that must only occur between teachers, but as a trait of all the relationships that are established within the school (teachers, families, students...) and externally¹³ (Fullan, 1985). Not all types of collaboration are equally effective. Hargreaves and O'Connor (2017, p. 7) stress the need to move from professional collaboration to collaborative professionalism:

Collaborative professionalism is about how teachers and other educators transform teaching and learning together to work with all students to develop fulfilling lives of meaning, purpose, and success. It is organized in an evidence-informed, but not data-driven, way through rigorous planning, deep, and sometimes demanding dialogue, candid but constructive feedback, and continuous collaborative inquiry. The joint work of collaborative professionalism is embedded in the culture and life of the school.

Collaboration is a characteristic of innovative schools (Sancho, 2002) because it allows to reduce the uncertainty that always comes with a change and increase the sense of efficacy (Fullan & Hargreaves, 1992). Collaboration is necessary to develop (Coronel, 2002):

- a) **The school as an organisation.** Collaboration is necessary to create an organisation and to emphasise the school's social and cultural nature (Condition 2).
- b) **The curriculum and professional development.** The development of a sensible and evaluative curriculum (condition 3) can only occur through collaboration and professional development. Despite the available qualification outside the school, the centre itself must become a learning organisation (condition 7). Learning organisations have collaboration at their baselines.
- c) **External relationships.** The school must be opened to its immediate context, but also to the society. This openness and reciprocal relationship between the school and context implies collaboration (condition 6 Educational Community).

From the aforementioned, it can be inferred that collaboration and collegiality can occur at different levels. The most acknowledge level is **teacher collaboration** (Coronel, 2002; Fullan & Hargreaves, 1992; Hopkins et al., 2014; Murillo, 2003; Sammons et al., 1995). If the school is the centre of change, there is no space for individualism. Teacher collaboration is necessary to provide assistance, to share and build knowledge and for joint work (team-teaching, planning, mentoring...). However, as Fullan and Hargreaves (1992) warn, individuality (being critical, opportunity for solitude, expressing disagreement and intrusive questions) should not be understood as individualism (working in isolation).

¹³ The collaboration between the school and the educational community is discussed in condition 6.

Collaborative cultures require broad agreement on educational values, but they also tolerate disagreement and to some extent actively encourage it within these limits. Schools characterized by collaborative cultures are also places of hard work, of strong and common commitment, dedication, of collective responsibility and of special sense of pride in the institution (Op. Cit., p. 66).

Indeed, it is needed collective autonomy, collective efficacy, collective inquiry, collective responsibility, collective initiative, mutual dialogue, joint work, common meaning and purpose, collaborating with students and thinking for all to achieve collaborative professionalism (Hargreaves & O'Connor, 2017).

If collaboration is considered a cornerstone for any educational change, it is especially true for **CLIL implementation**. CLIL's novelty (and also the challenge) lies in the integration of, at least, a content subject and an additional language. It is a novelty since these two (or more) subjects have been taught separately by two different teachers. Consequently, language teachers are not specialist in the content subject and content teachers do not master the additional language. Therefore, collaboration is necessary to ensure curricular integration. Additionally, teacher collaboration will also be necessary to foster an integrated language curriculum. Consequently, the implementation of CLIL has organisational implication in terms of collaboration (Pavón Vázquez, López, Segador, & Mohedano, 2015). Collaboration is necessary for the integration of content and language learning and the use of cross-curricular themes (Genesee & Hamayan, 2016). Teacher collaboration should be present at different levels: teachers working in the same grade, coordination across grade and between CLIL and non-CLIL teachers (Op.Cit). In fact, for collaboration to be successful, it should be embedded in school's structures (Turner, 2015).

It has already been stressed the importance of allocating time for content and language teachers to work together in and outside the classroom (Delicado Puerto & Pavón Vázquez, 2016; Durán-Martínez & Beltrán-Llervador, 2017; Pavón Vázquez, 2014; Pavón Vázquez et al., 2015). In fact, a characteristic of effective CLIL programmes is the close collaboration between teachers of different disciplines (Yang & Gosling, 2014). Nevertheless, collaboration can be challenging when different teachers are involved. Thus, creating the right environment is necessary to foster collaboration (Genesee & Hamayan, 2016). CLIL has to be understood as a

Collective endeavor and a whole school project and not just the exclusive responsibility of a group of teachers, so as to be able to design activities that may break the boundaries between diverse disciplines, explore together ways of articulating them, find the appropriate resources and establish the dynamics which better suit them (Durán-Martínez & Beltrán-Llervador, 2017, p. 8).

Although some studies have stressed the importance of teacher involvement and participation for CLIL success (Soler et al., 2017), the focus tends to be on CLIL teachers and CLIL lessons rather than school-wide collaboration. Indeed, little is known about how CLIL implementation affects school collaboration and how collaboration is used to reflect on the curriculum organisation and the teaching-learning process.

3.2.1.6. Condition 6: Involvement of Educational Community

For any change to be successful, it requires the acceptance and the **involvement** not only of the teaching community (school leaders and teachers) (Antúnez, 1998; Gairín, 2000; Hallinger & Heck, 2011; Hargreaves, 2003; Santos Guerra, 2010; Stoll & Fink, 1999), but also the educational community (parents, students, Administration...) (Fullan, 1985). The participation and collaboration of the educational community can occur at different levels: School-parental involvement; students' participation and external collaboration. When a school decides to involve the educational community, at the end, what is accepting is the possibility that this community influences the school's activity (West & Hopkins, 1996). Therefore, for an effective influence, the school must be open, flexible and adaptable. The involvement of the educational community allows horizontal and vertical support in the school and externally (Fullan, 1985). This support is necessary to overcome challenges (Hargreaves, 2005). Indeed, according to the last AQU's (2015) report, 56% of educational innovations in Catalonia are related to interschool collaboration.

Families-School partnership is a characteristic of effective schools (Hopkins et al., 2014; Murillo, 2003; Sammons et al., 1995). Previous research has pointed out the positive impact families' involvement and participation have on students' achievement, especially when families and schools' aims and expectations are aligned (Sammons et al., 1995). Nevertheless, families-school partnership is not only about the school informing the families, but making the families participate in the school activity and decisions (Antúnez, 2006). On the other hand, if education is designed for students, their voices must also be listened to. Thus, **pupils' active participation in school life** is necessary. Indeed, one of the traditional students' demands is their involvement in decision-making processes that do have an impact on them (Rudduck & Flutter, 2007). Giving pupils more responsibility and control appear to have a positive impact on students' self-esteem and learning (Sammons et al., 1995).

However, the **educational community** involves more people apart from families and students. The educational community involves all people working in the school, but also the organisations and institutions from the school's context that have an impact on the school. The collaboration

and participation of the educational community is necessary to create a learning community (Murillo, 2003) that facilitates networking, self-reflection and continuous learning (Hopkins et al., 2014). A learning organisation (condition 7) is only possible if there is an innovative and collaborative culture (Sun et al., 2007); that is, if the organisation is ready and open to learn from all groups of people and organisations.

Previous theoretical works on **CLIL** implementation describe stakeholders' participation as a major force for the implementation of CLIL programmes (Enever, 2011; Mehisto & Asser, 2007; Mehisto & Genesee, 2015; Pavesi et al., 2001). **Families' support** to CLIL project is necessary (Tucker, 1998). Families need to understand what the project is about, what is expected, as well as being informed of the decisions and outcomes achieved (Ioannou-Georgina & Pavlou, 2011). In addition, **students** have to be involved and informed about the programme, why they are learning in a foreign language and what is expected from them. Likewise, they can propose some topics or areas of interest (Mehisto & Asser, 2007). School managers are believed to be in charge of establishing channels of communication and involvement between the different stakeholders (Mehisto & Asser, 2007). The interdependence and participation of different stakeholders appears to be a characteristic of effective CLIL instruction (Mehisto, 2012).

Likewise, the school should share their CLIL project with the rest of the community through different means (Geafell & Unterberger, 2010). The cooperation and communication should also spread outside the school borders and involve the establishment of **collaborative networks with other CLIL schools** (Mehisto & Asser, 2007), as well as creating a network that includes all CLIL teachers (Geafell & Unterberge, 2010). Networking with other institutions and organisations with a CLIL project could allow schools to learn from others' experiences and solutions, as well as disseminating the own practice (Ball et al., 2015). "Schools need support in reflecting on, adjusting and adding to their understandings, practices and plans, and in sharing power"(Mehisto & Genesee, 2015, p. 271). Indeed, Yang & Gosling (2014) found that full administrative support for CLIL programmes is a characteristic of effective CLIL projects. Soler et al. (2017) believe that the Administrative support is a necessary condition for CLIL implementation and sustainability. Overall, the participation of all the educational community can provide strong and necessary support (Genesee & Hamayan, 2016).

3.2.1.7. Condition 7: Learning Organisation

Any educational change will only be sustained if it also promotes and encourages **school-wide learning** (Antúnez, 1998; Gairín et al., 2009; Gairín, 2000, 2004; Hargreaves, 2003; Senge, 1991; Stoll & Fink, 1999). Change cannot rely only on the innovative capacity of a single person, but the

whole educational community (Gairín & Martín, 2004). Therefore, it is needed to develop collective internal capacity (Bolívar, 2016; Fullan et al., 2015). The idea is that students' learning cannot improve unless teachers learn. Consequently, for a sustained change, it will be necessary to develop a learning organisation. A **learning organisation** is an organisation that has a new collective competence that allows the organisation to collectively learn from the past and present experience, process the information, correct the errors and solve the organisational problems creatively and transformatively, not just reproducing old practices (Senge, 1991).

Previous literature has made a distinction between organisational learning and learning organisations, being the former the medium for the latter. In Bolívar's (2000) words:

Organisational learning provides a framework to understand how cognitive and practical changes that occur to the individuals of an organisation are dependent on the urgency of the new organisational structures and mental models. In this sense, organisational learning is a means to an end: attain a learning organisation. (Bolívar, 2000, p.20).

Six main factors have been identified as **characteristic of learning organisations** (Pearn, Roderick, & Mulrooney, 1995): 1) people as apprentices; 2) favourable culture; 3) learning vision; 4) learning increase; 5) management support, and 6) transformative structure. The aim of a learning organisation is not only to achieve the prescribed goals, but to broaden the organisational function (Gairín, 2000). Consequently, to become a learning organisation, an organisation needs the active involvement of all members, the coordination among the teaching staff, the effort to share goals and codes, the dissemination of good practices, learning and ongoing development, the critical analysis of common practices, the experience of new practices, the predisposition of changing mental frameworks and the capacity to understand the situation (Bolívar, 2000, 2016; Fullan et al., 2015). But, above all, learning organisations are characterised by their capacity to institutionalise the change through a better understanding of the predominant conceptions and values (Gairín, 2000). In short, a learning organisation is the result of the integration of the conditions for school change described in this section. It is worth noting that different schools, or even departments within the same school, could be in different organisational stages. Identifying what the current organisational stage is can foster institutional improvement (Gairín, 1998).

However, understanding the organisational capacity as the result of school-wide learning has **implications on teachers' professional development**. That is, if a learning organisation is the result of collective learning, teacher training should be school-based in order to provide support,

improve the teaching-learning process, ensuring collegial and collaborative planning and share learning (Bolívar, 2016; Sammons et al., 1995).

As for **CLIL** implementation, to the best of our knowledge, there is no clear evidence that addresses the topic of **learning organisations**. The fact that CLIL tends to be approached as a classroom-based project rather than school project, as well as the shortage of research on CLIL implementation may explain why this condition has not been addressed. However, Pappa et al. (2017) found that collegial community was perceived as a positive influence to revisit the own work and practices, to learn and to discuss CLIL and instructional issues. On the other hand, Soler et al. (2017) found that some participants believed that defining CLIL as a school-wide project helped overcoming the initial obstacles.

3.2.1.8. Condition 8: Resources

Resources are important for educational change because they are the means the school can count with to achieve the aims. The organisational resources are classified in three types: **human** (teachers, administrative, external stakeholders...), **material** (building, furniture and didactic material) and **functional** (space, time and money) (Antúnez, 2006).

Acknowledging the available resources and the needed resources during decision-making processes and planning stage is paramount to determine the school's capacity for change in terms of resources. Besides change may imply needing more resources (Creemers & Reezigt, 2005), resources are by definition scarce and, consequently, what is important is making a better use of the already available ones (Antúnez, 2006; Fullan, 1985; Levin & Fullan, 2008). That is, to adjust the use of the resources to the innovation aim.

However, **change is 'resource-hungry'** (Reezigt & Creemers, 2005) since change always needs more resources, especially time (Creemers & Reezigt, 2005; Fullan, 1985; Reezigt & Creemers, 2005). Therefore, change will imply readjusting the schedule either to allocate more time or to release teaching staff from some of the tasks. Black and Wiliam (1998) believe that, during the process of change, teachers should be provided extra time to collect evidences of its effectiveness and learning from development. Apart from time and money, resources in terms of space, materials assistance and support will also be needed. Support and assistance may include training, consulting, advice and capacity-building (Creemers & Reezigt, 2005; Fullan, 1985). Leadership will play a major role in obtaining additional resources and allocating the already available ones (Leithwood, Day, Sammons, Harris, & Hopkins, 2006; Sammons et al., 1995). In fact, change should also help leaders to know how to allocate staff and other resources to achieve the stated goals (Levin & Fullan, 2008).

In terms of **CLIL**, special attention to **resources** needs to be given (Ball et al., 2015; Mehisto & Asser, 2007; Pavesi et al., 2001). **Time** and **didactic materials** are the resources that have received more attention. There is a general agreement that CLIL implementation increases time demands on teachers (Mehisto & Genesee, 2015; Pavón Vázquez & Rubio Alcalá, 2010; Pena-Díaz & Porto-Requejo, 2008). This time increase is due to the adaptation of the classroom planning and the development of learning materials. Therefore, teachers' time should be organised in such a way that they could coordinate, produce materials and receive on-site training (Durán-Martínez & Beltrán-Llevador, 2017). Nevertheless, this time increase also occurs during class time since students tend to need more time to cover the same content. Therefore, adjustments to teachers and students' schedules should be made in order to make a more efficient use of time. This adjustment must also include time slots for coordination (Genesee & Hamayan, 2016). Additionally, some teachers advocate that **students' grouping** should be adapted to the pedagogical needs and that specific **spaces** (ICT classrooms, CLIL classrooms...) should be provided (Durán-Martínez & Beltrán-Llevador, 2017).

Moreover, attention to resources must be given not only in terms of time and money, but especially regarding **materials** (Butler, 2005; Ioannou-Georgina & Pavlou, 2011). CLIL teachers complain about the lack of CLIL resources and the work overload this implies. However, previous research has found that available resources are paramount to carry out an innovation (Enever, 2011). In addition, not all materials meet the standards, for this reason, establishing criteria to develop learning materials could help to elaborate suitable learning resources (Mehisto & Genesee, 2015).

3.2.1.9. Condition 9: Teacher qualification

Educational change must be based on a moral purpose, but teachers need specific knowledge, strategies and tools to be able to develop this moral purpose (Hopkins et al., 2014). Individual teachers' qualification will not lead to school change (Fullan, 1995), but it is also impossible that schools change if their teachers do not change (Fullan et al., 2015; Murillo, 2002; Murillo & Krichesky, 2014). Therefore, **teacher qualification is a necessary condition for school learning and, especially, for students' learning** (Bolívar, 2016). Research seems to indicate that teachers have a major impact on students' learning (Hattie, 2003). In fact, a characteristic of effective schools is having well qualified teachers (Sammons et al., 1995). That is, teachers possess sufficient **content and pedagogical knowledge** (Schulman, 1986; West & Hopkins, 1996). However, what is more important is that teachers develop the **ongoing capacity to learn** (learning to learn) and the school encourages this learning (Coronel, 2002; Hopkins, 1987a; Murillo, 2003). Ongoing development is necessary so as to adjust the individual's knowledge to

both the classroom and school's demands. Indeed, teacher and student's development are reciprocally related (Hargreaves, 2003). Research findings seem to indicate that teacher's ongoing development is more effective when it is school-based and linked to the school and its needs (Coronel, 2002; Murillo, 2002). According to Black and Wiliam (1998) fundamental change cannot be based on an extensive programme of training for all.

The importance of teacher qualification for successful **CLIL implementation** has also been stressed (Eurydice, 2017a; Scott & Beadle, 2014). Teacher qualification appears to be a characteristic of successful CLIL programmes (Navés, 2009; Paran, 2013; Soler et al., 2017; Yang & Gosling, 2014) since it provides teachers with sufficient authority to make decisions about integration and the teaching and learning process (Turner, 2015). Therefore, for the success of CLIL programmes, **sufficient support and ongoing development** needs to be provided to teachers (Ball et al., 2015; Butler, 2005; Mehisto, 2007; Ruiz-Garrido & Gómez, 2009). In fact, specific methodological training needs to be provided, because CLIL without a change in classroom pedagogy does not raise standards (Wiesemes, 2009). The qualification of in-service teachers has attracted much attention (Ball et al., 2015; Mehisto & Genesee, 2015), probably due to the lack of CLIL training received by this group. Nevertheless, other voices also stress the importance of qualifying pre-service teachers within this approach (Bazo et al., 2016). As for the current training, there are a few evidences of school-based training which report this training to be successful (Lucietto, 2008). Likewise, individual training that combines theory-based and in-place training appears to qualify teachers for the teaching demands that they will encounter in CLIL settings (Lo, 2017b; Turner, 2015).

Due to the centrality of this condition within the framework of this doctoral thesis, as well as the importance of teacher qualification for the realisation and sustainability of CLIL programmes, this condition will be specifically developed and discussed in chapter 4.

3.2.1.10. Condition 10: Communication

Communication is one of the conditions for school change. However, communication could be considered a cross- or meta-condition for school improvement. None of the aforementioned conditions can take place without communication. Communication is necessary to share the goals (Hallinger & Heck, 2010), make decisions (Coronel, 2002), as well as to collaborate and provide the support and pressure to carry out a change (Fullan, 1985). Due to the complexity of change, **support** is crucial to cope with possible challenges, to develop the new learning skills the change requires and, above all, to understand why this 'new way' works better (Black & Wiliam, 1998; Fullan, 1985; Fullan & Miles, 1992). Communication is necessary to evaluate the change's

success and challenges, as well as to disseminate these results with the educational community (Levin & Fullan, 2008).

Therefore, during the whole process of school change, **communication channels and means** are to be provided to people that are (or not) involved in the change (Fullan, 1985, 2003; Levin & Fullan, 2008; Santos Guerra, 2010; Stoll & Fink, 1999) so that these stakeholders can collaborate and share the knowledge (Black & Wiliam, 1998; Gairín et al., 2009; Hargreaves, 2003). This communication channels are also necessary to share some codes to elaborate, develop and evaluate the innovation: the semantic code (the meaning of the words), the ideology code, the ethical code and the grade code (the level of demand) (Santos Guerra, 2010).

Communication is also identified as an important condition for CLIL implementation. However, while communication could be regarded as a meta-condition in educational change research, this condition tends to be only related to coordination between the teachers involved in CLIL teaching and learning (Ioannou Georgiou, 2012; Mehisto; 2007; Pavón-Vázquez, 2014; Wiesemes, 2009). Communication is necessary to **break down barriers between departments** to maintain support, collaborate and deal with the challenges that may arise (Ioannou-Georgina & Pavlou, 2011), as well as help stay on track, return to the vision and strategic plan (Mehisto, 2007). It is important that there is a stated schedule for content and language teachers to meet, plan and create materials (Geafell & Unterberger, 2010). Genesee and Hamayan (2016) suggest some recommendations to enhance CLIL communication: a) Set a communication schedule; b) establish a common structure to focus conversations on key issues; c) use both online and face-to-face communication.

In short, Educational change is not a quick and straightforward process, but a slow, complex and demanding one. As Fullan (2003) warns, there are some aspects that need to be considered when a change is carried out: 1) the pace of change will never slow down; 2) coherence needs to be preserved and it is everyone's responsibility; 3) changing the context is the focus; 4) early clarity and charismatic leadership may threat sustainability; 5) the need to mobilise the social attractors (moral purpose, quality relationship and quality knowledge); and 6) keeping the change transparent. Moreover, despite the conditions have been presented in isolation, they are intertwined and they combine and interrelate in multiple ways:

If the substantial rewards promised by the research evidence are to be secured, each teacher must find his or her own ways of incorporating the lessons and ideas set out into his or her own patterns of classroom work and into the cultural norms and expectations of a particular school community (Black & Wiliam, 1998, p. 10).

Table 9. Summary of the conditions for school-based change and CLIL implementation.

CONDITION	School effectiveness and School improvement Research	CLIL Research
1. Leadership	<ul style="list-style-type: none"> ·Focus on curriculum and pedagogy. ·Participative. ·Supportive. ·Adaptation to school's context and culture. 	<ul style="list-style-type: none"> ·Critical for CLIL. ·Involved in CLIL. ·CLIL coordinator.
2. Shared vision, Goals and Guiding value system	<ul style="list-style-type: none"> ·Analysis of the need of change. ·Goals. ·Plan the change. ·School context and culture. 	<ul style="list-style-type: none"> ·Analysis of the need for CLIL. ·CLIL adaptation to the context. ·Integration. ·School official documents.
3. Focus on teaching and Learning.	<ul style="list-style-type: none"> ·Focus on curriculum. ·Creation of learning environments. ·Purposeful teaching. ·High Expectations. 	<ul style="list-style-type: none"> ·Mechanisms to develop the curriculum.
4. Monitoring the progress	<ul style="list-style-type: none"> ·Monitoring students' performance. ·Evaluation of school's performance. 	<ul style="list-style-type: none"> ·Monitoring students' learning. ·Evaluation of school's performance.
5. Collaboration	<ul style="list-style-type: none"> ·Collaboration necessary to develop: a) the school as an organisation; b) curriculum and professional development; c) external relationships. 	<ul style="list-style-type: none"> ·Collaboration between content and language teachers.
6. Educational Community	<ul style="list-style-type: none"> ·School-families collaboration. ·Students' participation. ·External relationships. 	<ul style="list-style-type: none"> ·Families support. ·Students' participation. ·External relationships.
7. Learning Organisation	<ul style="list-style-type: none"> ·School-wide learning. ·Capacity building. ·Learning stages. ·School-based ongoing development. 	<ul style="list-style-type: none"> ·No evidences.
8. Resources	<ul style="list-style-type: none"> ·Human, material and functional. ·Allocation of resources according to the needs and goals. 	<ul style="list-style-type: none"> ·Coordination and planning time. ·Didactic materials.
9. Teacher Qualification	<ul style="list-style-type: none"> ·Content and pedagogical knowledge. ·Learning to learn capacity. 	<ul style="list-style-type: none"> ·Qualifying teacher into the CLIL approach. ·Ongoing development.
10. Communication	<ul style="list-style-type: none"> ·Support and pressure. ·Communication means. 	<ul style="list-style-type: none"> ·Communication for a collaborative purpose.

Source: Own elaboration.

In this section, the main conditions for school change identified by previous research have been revised (Table 9). Note that all these conditions, as well as the dimensions that each of them imply, are equally important for school change. Even though these conditions have been

presented separately, they overlap and intertwine. In fact, it is the integration and relationship of all these conditions that make possible the educational change.

Leading and managing a school change, as the **implementation of CLIL**, is a complex task (Mehisto & Genesee, 2015). The conditions identified by general educational research (both school effectiveness and school improvement) have been contrasted and related to the available findings on CLIL implementation. This revision allows drawing some conclusions. First, all school-based conditions identified by effective school and school improvement research are applicable to CLIL implementation although some slight differences may exist. Second, the revision shows two challenges for school-based CLIL implementation. On the one hand, there is scarce research on CLIL implementation. On the other hand, most of the available research is focused on classroom-based implementation (Navés, 2009; Paran, 2013). All in all, there is a lack of sound knowledge that can be provided to schools to help them to implement and sustain this innovation. Consequently, we may be overlooking some barriers and challenges that may hinder the implementation of this approach or make the most of this approach. For this reason, the following subsection will revise what the main barriers and challenges for the aforementioned school-based conditions are and the already available evidences relative to CLIL.

3.2.2. Challenges and Barriers for Educational Change

Nowadays, changes are more frequent, quicker, numerous, disseminated, more accepted and affect more people. Nevertheless, the simple fact of changing comes along with some **challenges**. Therefore, it is not only important to identify what the necessary conditions for change are, but also what can hinder the process of change.

According to Fullan (1985), there are six types of limitations:

1. **Unsolvable problems.** Some problems are not solved because no adequate solution exists. Other problems occur due to the underestimation of resources and feasibility.
2. **The nature and narrowness of goals.** Stating goals without considering other domains.
3. **Demographics.** Research tends to be based on small samples which may not reflect all the contextual variables.
4. **Abstraction, misunderstanding and incompleteness.** Insufficient knowledge of the factors and variables that explain school success.
5. **Transfer/sequencing.** The difficulty to transfer knowledge acquired in one context to another.
6. **Subtle combinations.** The simplicity-complexity paradox of change.

According to Santos Guerra (2010), barriers and challenges can arise at three different levels: **personal** (the individual's characteristics such as qualification, beliefs, previous experiences, adaptability and flexibility...), **contextual** (external factors of the school that moderate students' learning) and **institutional** (factors related to a given school and its organisation). Barriers at these three levels can be found for each of the conditions revised. Therefore, the purpose of this section is to revise what the main barriers and challenges for each condition are and how they are present in CLIL implementation. However, it is worth noting that contextual barriers will have to be dealt in a different way as the personal and institutional ones. Contextual factors are given and, through the process of change, it is intended to minimise their moderating effect on students' learning. Therefore, they have to be identified and acknowledge during the whole process, but these barriers will not be modified due to the process of change. However, personal and institutional conditions are both the means and the object of change. Thus, they must be carefully identified, analysed, planned and assessed because these are the barriers that actually can jeopardise the change's success.

3.2.2.1. Condition 1: Leadership

Leadership is believed to be a central condition for school change, especially when leadership is participative and distributed. However, **misunderstanding distributed leadership** can compromise the process of change (Hargreaves & Fink, 2003). Distributed leadership is misunderstood when (Eurydice, 2013):

- a) *The responsibility of the change is deployed from the actual leaders to someone else.* It is thought that a teacher or a group of teachers will be the ones in charge of developing the change and implementing the innovation.
- b) *There are different individual agendas.* Coexistence of different interests and priorities.
- c) *Informal leadership undermines formal leadership.* Some group of teachers go against the decisions and proposals of formal leadership.

If leadership is misunderstood, an effective change will be impossible since the other conditions for school change will not be reached. To these, it has to be added that, in the Spanish context, there is a lack of experience in improving school leadership since innovations tend to be focused on pedagogy (98%), technology (98%) and interschool collaboration (56%) (AQU, 2015). In addition, school leaders have a limited influence on school-based decisions (Marcelo, Mayor, & Gallego, 2010).

As for **CLIL** implementation, the current barrier is not only **deploying all the responsibility of CLIL implementation on a single teacher** (or couple of teachers) (Mehisto, 2008; Mehisto et al.,

2008), but also depending on a few teachers to develop the CLIL project at the school level (Kiely, 2011). This situation is negative for CLIL sustainability, students' learning and teachers' well-being. In fact, some previous studies have found that when a CLIL project depends on a teacher, the innovation disappears when the teacher leaves the school (Nikula, 2007). When a change is identified with a person it has the roots of its own destruction (Fink, 1999). Due to the relevance leadership has on school-based CLIL implementation, the barriers relative to leadership will be presented in the section 3.3.2.

3.2.2.2. Condition 2: Shared vision, goals and guiding value system

For a school-wide change, it is necessary to analyse the need of change, establish shared goals, adapt and plan the change to the school's context and culture. Thus, barriers and challenges can occur at the level of all these dimensions.

The first problem that can arise is **not doing a good needs analysis**. This can happen for different reasons: not devoting enough time and resources to diagnose the need of change and possible solutions (Fullan, 2003; Murillo & Krichesky, 2012); the change is externally imposed, but it might not be what the school needs (Hargreaves, 2005); or a wrong identification of the problem and, thus, an inappropriate solution, among others.

Another problem is **not devoting enough time to planning**. According to Antúnez (1998, 2006) and Gairín et al. (2009), one of the main causes of failed innovation is to go from diagnosing the need of change to directly execute this change without creating the favourable conditions, identifying the problems, identifying and evaluating the intended goals, evaluating the possible solutions, planning and evaluating the change (Murillo & Krichesky, 2012).

A challenge appears when there are different innovations going on in a school. Fink (1999) refers to it as '**innovation overload**'. This overload occurs when too many new innovations are added before the previous changes have been consolidated and institutionalised.

However, despite the importance of the above barriers, it may be the case that the first problem to arise is **resistance towards change**. Antúnez (1998) identified some of the causes of this resistance: Defence of one's interests; Lack of understanding of what is proposed; Lack of confidence in who proposes the change or in oneself; Conservatism and limited tolerance towards uncertainty; Agreement with the current situation; Inadequate schedules and rhythms; Resources; Amount and complexity of the contextual demands; Inadequate school management.

The barriers for the creation of a shared value system for **CLIL** implementation are basically three. First, as the revision of chapter 2 shows, there are **different ways of understanding CLIL** (Butler, 2011; Di Martino & Di Sabato, 2012; Mehisto & Genesee, 2015). These different conceptualisations do not only happen between countries, regions and schools, but also within schools. Therefore, different goals and expectations could coexist. Second, there is a **misconception of integration** (Banegas, 2012) since integration has been defined in a flexible way (de Graaff, 2016). Indeed, integration is either understood as the translation of what is done in the mother tongue to the target language, as the use of content subjects to learn an additional language or as the learning of content-specific language. Different ways of understanding integration lead to different ways of CLIL implementation. Additionally, the consequences each conception has on the curriculum, planning and teaching practices differ. A third barrier is not planning the role of each language what may cause a **hierarchy and rivalry between school's languages**. An example is Relaño Pastor's (2015) study in which it was found that, in the secondary school analysed, there was an established hierarchy between different languages. Situating English at the top of the hierarchy, followed by Castilian Spanish and, at the end, the other languages learners had, including Spanish from Latin American countries. The lack of integration and shared planning between the school languages and the fact that only 'bright' students could access to the CLIL programme caused attitudes against English learning among some pupils.

Another barrier is **personal resistance towards CLIL** (Genesee & Hamayan, 2016; Soler et al., 2017). This resistance appears as a reaction to the perception that CLIL will take one's status. That is, some language teachers fear CLIL implementation because they believe CLIL takes their role as language teachers, whereas content teachers do not believe that language teachers are ready for teaching content subjects. Other teachers believe that they are either content or language teachers and, therefore, they do not have to focus on the other subject (Bovellan, 2014; Hüttner et al., 2013; Skinnari & Bovellan, 2016).

3.2.2.3. Condition 3: Focus on teaching and learning

The aim of any educational change should be the improvement of students' learning. The problem comes when **teaching and learning are not considered** in the implementation of an educational change. This lack of consideration can occur at different levels: not linking the changes to the curriculum (Hopkins et al., 2014) or not providing enough attention to the creation of a learning environment, purposeful teaching and the establishment and communication of high expectations (Sammons et al., 1995).

The lack of focus on teaching and learning is a particularity of the innovation carried out in the Spanish context. Marcelo et al. (2010) found that the processes of school change tend to be focused on the equipment, the elaboration of school projects, the distribution of space and time and the coordination among the staff. However, these changes rarely have a clear focus on curriculum or the improvement of teaching practices.

CLIL is intended to provide the favourable conditions to acquire an additional language and the content. However, evidence appears to indicate that sometimes one of these two aspects is neglected (Coyle, 2007; Kong, 2009). This may have as a consequence a non-lasting CLIL implementation (Kiely, 2011), not integrating both subjects or purposefully plan, work and assess both language and content (Banegas, 2012; Mehisto & Genesee, 2015). However, not focusing CLIL implementation on students' learning could lead to poor language or content results (Soler et al., 2017).

3.2.2.4. Condition 4: Monitoring the process

School evaluation needs to provide evidence about what is working and what needs to be improved, ensure equal opportunities among students, determine the efficiency and improvement school's tendencies and lead to future development.

The main barrier for this condition is **insufficient monitoring** to determine how the innovation is progressing and if it is making a difference (Stoll & Fink, 1999): "when the activities for school improvement fail, frequently it is because not enough time is devoted to determine how the initiative was progressing and if the initiative was making a difference" (p.259). This is especially relevant in the Spanish context due to the weak and fragmentary evaluation culture, what limits obtaining sound evidence on the impact of change (Escudero, 2014). Additionally, it is not always easy to **link students' learning with the innovation** (Escudero, 2014; Stoll & Fink, 1999).

However, monitoring the change and linking it to students' learning are not the only challenges schools face. It seems that, in general, school management teams make a **limited use of the feedback received** (Verhaeghe, Vanhoof, Valcke, & Van Petegem, 2010). This limited use is because of: a) being an intensive, time-consuming and difficult activity; b) not including specific guidelines or starting points to move forward; c) not knowing how to link existing practices, the feedback received and improvement processes. Therefore, it may be that the challenges are training the school staff to self-evaluate their activity and integrate this action within the school's practices (Bolívar, 2016; Bollen, 1987).

As for **CLIL**, research indicates that the main barrier relative to the monitoring process is the **absence of a systematic monitoring process**. Additionally, it could be that the evaluation carried out by the schools was the result of the Administration demands rather than a consequence of self-evaluating the school's practices (Bolívar, 2016). Previous studies suggest that there is a general belief that increasing students' exposure to the additional language immediately leads to improving students' learning and the school's task (Hüttner & Smit, 2014). This finding is confirmed by Soler et al. (2017) study in which school management teams and CLIL teachers believed that the mere implementation of CLIL led to an improvement of foreign language proficiency at the same time that contents were acquired. However, this evaluation was based on perceptions and not evidence-based. Additionally, it appears that school management teams do not have enough knowledge about CLIL and, therefore, they move on trial and error (Doiz & Lasagabaster, 2017). That is, they do use teachers' feedback, but do not have enough information to know what works best.

3.2.2.5. Condition 5: Collaboration

If the change is to be a school-wide change, collaboration and involvement of all the teaching staff are necessary. While collaboration is one condition for school change, its absence is a barrier (Fink, 1999; Fullan & Hargreaves, 1992). "Schools may be full of good teachers, but unfortunately, too many have been accustomed to working alone, in silos, with little feedback and meaningful interaction with others" (Hargreaves & O'Connor, 2017, p. 6). Fullan and Hargreaves (1992) identified six main problems related to **lack of collaboration**: 1) overload; 2) isolation; 3) absence of group thinking; 4) untapped competences; 5) narrowness in the teachers' role and 6) poor solutions and failed reforms. The actual problem, however, resides in the lack of opportunity and encouragement "for teachers to work together, learn from each other and improve their expertise as a community" (Fullan & Hargreaves, 1992, p.5).

Not only is lack of collaboration a barrier for school change, but also some types of collaboration. That is, not all **types of collaboration** lead to a shared vision. Three bad ways of collaboration are identified (Fullan & Miles, 1992):

- *Balkanization*: collaboration in small groups (separate and competing groups) instead of having a school-wide collaboration.
- *Comfortable collaboration*: collaboration is not extended at the classroom level.
- *Contrieved collegiality*: it is the collaboration that is controlled by the school management team. There are a set of formal, specific, bureaucratic procedures.

Despite being essential, **collaboration can also be challenging for CLIL**. First and foremost, some teachers are **not used to work collaboratively**, especially with teachers of other subject areas (Banegas, 2012a). An example is team-teaching which is demanding for CLIL teachers since detailed lesson planning is needed. In addition, the distribution of responsibilities and the role of each teacher are not always clear what make them feel insecure (Geafell & Unterberger, 2010). Additionally, collaboration in CLIL is threatened by the **lack of time**, as well as **individualism** (Genesee & Hamayan, 2016). This individualism is the result of both teachers' protection of their area of specialisation and the deployment of CLIL responsibility on a few teachers. Therefore, some forms of balkanization can be unconsciously fostered.

3.2.2.6. Condition 6: Educational Community

The Educational Community involves all people and institutions that have a link with the school. Therefore, the barriers for the participation of the educational community can occur at different levels. However, the major challenge is to improve schools' relationships with the context, families, students and other institution (Marcelo et al., 2010).

One of the current barriers is the **limited involvement of pupils and families**. This limited involvement can lead to miscommunication, misperception and misunderstanding (Fink, 1999; Rudduck & Flutter, 2007). Another challenge is at the level of **networking**. Sometimes there is an implicit (or explicit) antagonism between neighbouring schools since they perceive that they are competing against the other. Likewise, *entropy*, understood as a system that is closed to its environment, is another barrier to change because the systems that remains closed ultimately expires (Fink, 1999).

The most salient challenge for **CLIL** in terms of educational community is the **lack of community support** (Mehisto, 2008; Mehisto et al., 2008). There are many reasons that can explain this lack of support: school's closeness; not sufficient understanding of CLIL approach or the absence of structures that allow collaboration, among others. Although CLIL theoretical studies emphasise the importance of the involvement of the educational community, there is no much evidence on stakeholders' perceptions (Dalton-Puffer & Smit, 2013) or how the educational community support CLIL implementation. The few studies analysing students and families' perceptions found that they are not always aligned with both teachers' perceptions, the reality and the intended goals of the project (Coyle, 2013; Pladevall-Ballester, 2015). Interestingly, this discrepancy also occurs between teachers and school management teams (Soler et al., 2017). Therefore, educational community involvement is necessary to avoid misconceptions and misunderstandings about CLIL.

3.2.2.7. Condition 7: Learning organisation

The main threat for a learning organisation is **not promoting a reflective and collaborative culture** that allows the educational community to learn from the experience (Escudero, 2008). This reflective and collaborative culture will not be attained if organisational capacity to manage change is not encouraged, as well as teachers' individual capacity is not foster through ongoing development (Stoll, 2009). As it has been already stated, a learning organisation is one of the main conditions for school change, but other conditions, such as teacher qualification, evaluation and collaboration, nourish a learning organisation. Therefore, all the challenges and barriers reported for these conditions will hinder that the school becomes a learning organisation.

The condition 'learning organisation' has not been directly addressed by **CLIL** research what can be considered as a barrier in itself. The fact that most of the attention of CLIL implementation is on classroom settings (Navés, 2009; Paran, 2013) and that the school is not regarded as a learning organisation is both a threat and a barrier for school-based CLIL implementation.

3.2.2.8. Condition 8: Resources

The main challenge relative to resources is understanding them as a means to achieve the educational goals. However, a barrier would be **adjusting the educational goals to the available resources** (Antúnez, 2006; Doménech & Viñas, 1997). That is, deciding the change's goals based only on the available human, material and functional resources.

Another barrier is not adequately **plan the use of these resources and not making a good management** of them. For instance, if the objective is collaboration, time for collaboration will have to be allocated and, therefore, the schedules should be adjusted. The same is true for the use of space, since a specific place will be needed to cooperate (Hargreaves, 2005). It is important to plan time for teachers to work together and do not only rely on informal breaks (Stoll & Fink, 1999).

CLIL implies some changes on resources allocation and needs. A first challenge is stakeholders' **increase of invested time** and energy (Butler, 2005). However, CLIL implementation does not tend to come along with a readjustment of teachers' planning and teaching plan. Additionally, there is not always an adjustment of teachers' schedules to foster collaboration (Durán-Martínez & Beltrán-Llevador, 2017; Genesee & Hamayan, 2016).

Apart from this, **pedagogical resources for CLIL teaching and learning are scarce** (Banegas, 2012b; Butler, 2011; Di Martino & Di Sabato, 2012; Mehisto & Genesee, 2015; Pérez-Cañado,

2012) and the existing ones do not meet teachers' requirements and students' needs (Durán-Martínez & Beltrán-Llevador, 2017; Pappa et al., 2017). Therefore, teachers have to spend more time searching or developing these resources.

3.2.2.9. Condition 9: Teacher Qualification

As has been indirectly addressed in the previous conditions, **lack of teacher qualification** is a barrier to start and develop a process of change. Individual teachers' qualification will not lead to school change (Fullan, 1995), but it is also impossible that a school improves if its teachers do not change (Murillo, 2002). Not only will teachers need specific content and pedagogical knowledge (West & Hopkins, 1996), but also organisational knowledge in order to monitor their own practice and the process of change (Bollen, 1987), since this organisational knowledge is the base for a learning organisation.

Nevertheless, not all types of training will be equally effective. That is, **individual training** is necessary to expand or go in depth on one's knowledge, but it will not necessarily impact on the school's practices and learning. Therefore, an institutional challenge is to identify the needs of both the school and its teachers so as to provide school-based training. However, the offered training should not only be based on teachers' perceptions because practitioners' perceptions may not be aligned with the needs of the educational system or teachers may not be completely aware of their needs. Consequently, training should balance perceived and systemic needs (Montero, 1986).

Another major barrier is **teacher's instability** (Muñoz-Repiso et al., 2000; Murillo & Krichesky, 2012). A change is a long lasting process that implies teachers' commitment. However, if a teacher is not in a permanent position and s/he is in a different school each year, it makes difficult teacher's commitment on the change. Additionally, if the school has a high rate of non-permanent positions, it will be more difficult to start and sustain the process of change.

The main challenge **CLIL** is facing nowadays is the **lack of qualified teachers for CLIL** teaching and learning (Eurydice, 2017a; Soler et al., 2017). As it has already been stated, CLIL teachers tend to be specialised in either content or language (Pavón Vázquez & Ellison, 2013). Furthermore, there is not specific training provided to prospective and current CLIL teachers because there are not clear guidelines on what it is expected from a CLIL practitioner (Eurydice, 2017a). To this, it has to be added that, generally, a few teachers are qualified within the CLIL approach in each school. Thus, there is a dependency on these teachers to develop and continue this project at the school level (Di Martino & Di Sabato, 2012; Kiely, 2011). The specific challenges that CLIL

implementation is facing in terms of teacher qualification will be further discussed in chapter 4 because this is one of the main themes this thesis focuses on.

3.2.2.10. Condition 10: Communication

Communication has been regarded as a cross- or meta-condition since all the other conditions depend on communication. Therefore, the challenges and barriers relative to communication will not only affect this condition, but all the other ones.

Fullan (1991) claims that **lack of communication** and sharing of information may have a negative impact on effort, energy and enthusiasm to overcome the challenges school change entails. In addition, lack of communication will generate misperceptions and misunderstandings about what is intended, how it will be done and what is the role of each person (Stoll & Fink, 1999). As Santos Guerra (2010) states, devoting enough time to agree with some shared codes (What CLIL is and what CLIL entails) is essential.

As for **CLIL**, **lack of communication** can explain the insufficient sustainability of the project (Marsh, 2013). It is important to be clear on what is possible to achieve in each school with CLIL implementation and what has to be done in order to achieve it. These ideas must be shared not only with the teaching staff, but also, and foremost, with all the educational community to avoid misunderstandings. Additionally, schools need support from the Administration in order to implement the project. Pappa et al. (2017) found that CLIL teachers are enthusiastic at the beginning, but if sufficient support is not provided, this can cause the failure of the project or minimizing its potential.

The revision made in this section shows that **the process of change is not an easy one and it is full of challenges and barriers** that may hinder its implementation and sustainability (Table 10). Being aware of these barriers and challenges before starting and during the process is necessary to face them.

This analysis has compared the general barriers and challenges of any process of change and the process of school-based CLIL implementation. The revision of CLIL literature explains why this approach is still in its 'grassroots' (Hüttner et al., 2013): on the one hand, most of the attention on CLIL approach has been addressed to classroom-based CLIL implementation and its effects on student's learning overlooking CLIL organisational perspective. On the other hand, there are some contextual factors that are hindering CLIL implementation, especially in the context of this study (i.e. lack of CLIL qualification, absence of general guidelines, no external support

provided...). Therefore, the combination of personal, institutional and contextual barriers is causing that it is not obtained the most of this approach.

Table 10. *Summary of the challenges and barriers for school-based change identified by previous research.*

CONDITION	Barriers & Challenges identified by SE & SI research	Barriers & Challenges identified by CLIL research
1. Leadership	·Misunderstanding distributed leadership.	·Responsibility deployed on a few teachers.
2. Shared vision, Goals and Guiding value system	·Bad needs analysis. ·Bad planning. ·Innovation overload. ·Personal Barriers.	·Misconception of the approach. ·Language rivalry and hierarchy. ·Personal Barriers.
3. Focus on teaching and Learning.	·Not considering the teaching and learning dimension.	·No focus on curriculum. ·No focus on integration. ·Trial and error processes. ·Students' selection.
4. Monitoring the progress	·Insufficient monitoring. ·Difficulty to link change and learning dimension. ·Limited use of the feedback received.	·No systematic evaluation. ·Evaluation based on perceptions.
5. Collaboration	·Individualism. ·Type of collaboration.	·Individualism. ·Lack of time for collaboration. ·No collaborative experience.
6. Educational Community.	·Limited involvement of pupils and families. ·Absence of Networking.	·No community support.
7. Learning Organisation	·No promotion of reflection and collaboration. ·No school-based ongoing development.	·No evidence.
8. Resources	·Adjustment of the resources to the educational goals. ·Planning the use of resources.	·Educational goals dependent on resources. ·Shortage of resources.
9. Teacher Qualification	·Lack of qualification. ·Teacher instability.	·Lack or insufficient CLIL qualification.
10. Communication	·No communication. ·Absence of shared codes.	·No communication.

Source: Own elaboration.

This lack of support and evidence can also lead to think that CLIL is only effective when specific conditions are given. According to Paran (2013), CLIL works best when: a) it is implemented selectively; b) it is designed for higher achievers; c) teachers' level of L2 is high; d) students achieve a threshold of language competence and receive additional language support; e) the educational level of teachers is higher; f) Teachers are educated in CLIL and are aware of the links between language and content; g) the target language is widely accessible outside the school context; and h) CLIL works in private education. However, to regard an educational

innovation as effective, it must intend and achieve all students' learning, independently of learners' individual characteristics and the school's context. That is, educational innovations should aim to foster equality. For this reason, more research on school-based conditions for CLIL is needed so as to develop policies and provide support to schools and teachers that enable them to implement CLIL successfully.

3.3. Leadership and Educational Change.

3.3.1. Relevance of Leadership for Educational Change.

Sustained changes are only possible if there is a true involvement of the whole educational community. However, **school improvement needs leadership** so that the action done leads to the stated direction and depth of change. **Effective leadership exercises a positive influence on school improvement and students' learning** (Harris, 2004). In fact, although the impact may be indirect, school leadership has been regarded as the second more influencing factor on pupils' learning (Leithwood, Harris, & Hopkins, 2008; Murillo & Krichesky, 2012). Previous research has found that leadership accounts for 27% of the variation in student achievement, as well as it determines the motivation of teaching staff and the quality of their teaching (European Commission, 2012b; Leithwood et al., 2008). In this line, Fullan (2001) claims that leadership can exert a positive influence when it has a moral purpose, the change is understood, it is based on relationship building, knowledge creation and sharing and coherence making.

Formal leaders exert a strong influence on organisational change since they can encourage or prevent these processes of change (Harris, 2013). If leaders are to encourage educational change, they can either initiate or support the process (Hallinger & Heck, 2011). Therefore, school management teams play a major role in school change and organisational development due to their relevance, responsibility, representativeness and their capacity to positively influence teaching staff behaviour (Antúnez, 1998). That is, even though sustained change is based on the whole community involvement, it also needs someone that has the whole school's picture who deals with the information and links the school with the environment and the administration (Fink, 1999; Gairín & Muñoz-Moreno, 2008).

Sustained change relies on leadership, a leadership that aims to lead the school forward taking into consideration the needs, the potentialities of the organisation and a shared vision (Stoll & Temperley, 2009). According to Stoll and Fink (1999), leadership for change is the one that maintains high expectations, respects the individual characteristics of each member, trusts the teaching staff and carries out actions that intentionally aim to support the teaching staff.

Moreover, leadership is seen as a social construction rather than the addition of the individual characteristics of a person (López-Yañez, 1992).

Sustained leadership matters, spreads and lasts. It is a shared responsibility, that does not unduly deplete human or financial resources, and that cares for and avoids exerting negative damage on the surrounding educational and community environment. Sustained leadership has an activist engagement with the forces that affect it, and builds an educational environment of organizational diversity that promotes cross-fertilization of good ideas and successful practices in communities of shared learning and development (Hargreaves & Fink, 2003, p.696).

If the process of change is characterised for building capacity, **leadership not only has to foster capacity-building, but rely on the school's existing capacity**. Formal leaders working individually will not achieve change and improvement (Harris, 2013). Therefore, leadership is understood as **distributed** (Fullan & Hargreaves, 1992). Distributed leadership premises are that:

Rather than seeing leadership practice as a solely function of an individual's ability, skill, charisma, and/or cognition, we argue that it is best understood as a practice distributed over leaders, followers, and their situation. [...], we consider sociocultural context as a constitutive element of leadership practice, an integral defining element of that activity (Spillane, Halverson, & Diamond, 2004, p. 11).

Therefore, according to distributed leadership premises, **leadership resides in the organisation's human potential** (Harris, 2004). In other words, leadership should come from different sources in the school, where the work of a number of individuals and the accomplished task is the result of the interaction of multiple leaders (Leithwood et al., 2006). Consequently, the task of the leader is to acknowledge the human capacity within an organisation to support this expertise to lead (Harris, 2013). In this way, formal and informal leadership coexist and interrelate. In fact, it appears that this mutual influence explains the improvement capacity of an organisation (Hallinger & Heck, 2011). In short, "distributed leadership concentrates on engaging expertise wherever it exists within the organisation rather than seeking this only through formal position or role" (Harris, 2004, p. 13). Eventually, leadership may diffuse within the organisation, moving from an individual characteristic to an organisational property (Hallinger & Heck, 2011).

Distributed leadership has some implications for formal leaders and school organisation (Harris, 2013):

- The essential leader's task is to know who has the expertise (will and skill) to lead so as to build leadership capacity within the organisation.
- Successful performance is achieved through planning, design and discipline.

- A shift in power, authority and control.
- Building up trust within the organisation.

However, even though some patterns of leadership and distribution appear to be more effective than others (Leithwood et al., 2008), Hallinger and Heck's (2010) study suggests that there is not a straightforward leadership approach that will improve all schools, since leadership is context-embedded. Moreover, the type of leadership of an organisation may vary over time (Hallinger & Heck, 2010). On the other hand, school improvement will depend on the **close relationship between leadership and the community**. Likewise, Murillo and Hernández-Castilla (2015) found that the leaders who devoted most of their time to tasks related to the curriculum and teaching exerted a positive impact on students learning outcomes. Nevertheless, individual (training received, gender or age) and institutional conditions (school size, school ownership...) also affect the type of leadership (Murillo & Krichesky, 2012).

However, as Hargreaves and Fink (2006) warn, there is **the risk that distributed leadership is misunderstood and leads to bad leadership**. Bad distributed leadership occurs when individual leaders have different agendas or when leaders deploy their own responsibilities in someone else. In addition, another risk for sustained and distributed leadership is that, currently in most of the countries, is shared among formal leadership (Eurydice, 2013). Harris (2004) points out some challenges for distributed leadership:

- Distributed leadership requires formal leaders to relinquish power to others.
- The hierarchical structure most schools have difficult distributed leadership.
- Distributed leadership implies shared responsibility and authority, not just delegation.
- Distributed leadership implies the coexistence of formal and informal leadership.
- Fruitful and meaningful relationships between those in formal and informal leadership positions.

Leadership and the role of school management teams for school-based CLIL implementation have received scarce attention (Doiz & Lasagabaster, 2017), basically because all the attention has been focused on classroom implementation. However, some studies analysing teachers' perceptions stress the importance of the organisation and the school management team for the project's implementation (Durán-Martínez & Beltrán-Llevedor, 2017; Pladevall-Ballester, 2015; Soler et al., 2017). At the theoretical level, the role of school leaders is defined as critical for school-based CLIL implementation (Genesee & Hamayan, 2016; Mehisto & Genesee, 2015).

Indeed, Genesee and Hamayan (2016, p. 228) outline the role and characteristics of leaders for CLIL:

1. School management teams understand the principles of effective CLIL and are familiar with best practices for instruction in CLIL classrooms.
2. The school leader makes provision in the school schedule for teachers to work together collaboratively on programme development and instructional planning.
3. School management teams collaborate with instructional and other educational personnel in the school to plan professional development activities.
4. School leaders and other administrative personnel support and actively express support for linguistic and cultural diversity within the school and to members of the broader community.
5. The school, under the leadership of the school management team, has developed a mission statement or similar document that guides the co-development of all programmes in the school and has the support of all school personnel. The school's mission statement is reviewed and re-affirmed each year by all school personnel.
6. The school leader understands the human, financial and material needs of the CLIL programme and takes an active role in fulfilling those needs.

The tasks and conditions of an effective school leader for effective leadership are aligned with some of the conditions for school change (Table 9). For instance, the first and fifth points relate to the shared vision, goals and value system; the second and third points refer to collaboration, while the third and fourth relate to the educational community condition. Finally, points two and six refer to the resources (Table 11).

Nevertheless, the available CLIL research evidence on school leaders is not very optimistic. **School-based CLIL implementation for school leaders appears to be a major challenge** since they do not always perceive themselves competent enough (Mehisto & Asser, 2007). Doiz and Lasagabaster's (2017) study seems to point towards the same direction: while school leaders faced similar challenges, they overcame them differently and on a trial and error basis. Additionally, their decisions appear not to be always aligned with teachers' opinions. Moreover, the lack of a school's language guidelines makes that teachers base their decision on their own beliefs.

Table 11. *Relationship between school-based conditions for school change and the characteristics of a good leader for CLIL implementation.*

CONDITIONS FOR SCHOOL CHANGE	CHARACTERISTICS OF LEADERS FOR SCHOOL-BASED CLIL IMPLEMENTATION
Shared vision, goals and value system.	<ul style="list-style-type: none"> ·School management teams understand the principles of effective CLIL and are familiar with best practices for instruction in CLIL classrooms. ·The school, under the leadership of the school management team, has developed a mission statement or similar document that guides the co-development of all programmes in the school and has the support of all school personnel. The school's mission statement is reviewed and re-affirmed each year by all school personnel
Collaboration	<ul style="list-style-type: none"> ·School leaders make provision in the school schedule for teachers to work together collaboratively on programme development and instructional planning. ·School management teams collaborate with instructional and other educational personnel in the school to plan professional development activities.
Educational Community	<ul style="list-style-type: none"> ·School management teams collaborate with instructional and other educational personnel in the school to plan professional development activities.
Resources	<ul style="list-style-type: none"> ·School leaders make provision in the school schedule for teachers to work together collaboratively on programme development and instructional planning. ·School management teams understand the human, financial and material needs of the CLIL programme and takes an active role in fulfilling those needs.

Source: Own Elaboration

Some of the challenges identified by previous studies could be explained by **the lack of training** school leaders receive for school-based CLIL implementation. The study conducted by Laorden and Peñafiel (2010) in Madrid found that only 24% of the school leaders (n=84) had received specific training for CLIL implementation. The participants of the study believed that they needed more training regarding specific information of the project (86%), exchange experiences with other schools (74%) and knowledge about groups and teachers' organisation (54%). These same leaders considered that CLIL had important implications for school organisation in terms of greater coordinator and meetings (94%), modification of the schedule (90%), planning the subjects (73%), organising the contents of study (60%) and providing training for teachers (51%). As for human resources, school managers believed that, when implementing a CLIL project, more teachers (83%) and spaces were needed (69%), as well as teachers overload increased (63%).

These same school leaders reported that **coordination** was the main challenge they were facing regarding school-based CLIL implementation. Foreign language and content teachers tended to

work and plan their subjects separately. Only 13% of the school managers stated that content and foreign language teachers worked collaboratively and just 4% claimed that content teachers stayed in the CLIL lesson. Some school leaders (24%) believed collaboration was a constraint because of pedagogical reasons (10%), school organisation (60%) and personal relationships (30%). In fact, 36% of the school leaders reported that part of the teaching staff had opposed to CLIL implementation. However, **school managers' perceptions varied depending on their personal variables** such as level of foreign language competence, their specialisation (language or non-language specialisation) and their teaching experience. According to AQU's (2015) recent report, it seems that school leaders' perceptions also vary depending on the **institutional variables** of the school, such as the educational stage, the school's ownership and the school's level of complexity.

Soler et al. (2017) conducted a case study with three schools that had successfully implemented CLIL. According to the school management teams and teachers from these schools, leadership had an impact on the results of the project. Moreover, these schools tended to encourage distributed leadership, as well as leaders encouraged confidence, communication and a positive attitude. However, teachers from these schools felt isolated when leading CLIL. Therefore, the findings suggested that **there was a gap between school management teams and teachers' perceptions**.

From the above revision, it is clear that leadership plays a major role in any process of educational change. This idea has also been highlighted by previous studies on CLIL implementation (Genesee & Hamayan, 2016; Mehisto & Genesee, 2015). In fact, **school leaders appear to be necessary to create the favourable conditions for school change**. However, it is also evident that school management teams are facing major problems when starting and developing a CLIL project (Doiz & Lasagabaster, 2017; Laorden & Peñafiel, 2010; Mehisto & Asser, 2007; Soler et al., 2017). These problems are relative to different organisational conditions for school change, such as collaboration, teacher qualification, resources or establishing a shared vision. If these problems persist, the likelihood that school-based CLIL implementation fails is bigger. For this reason, in the next section, the characteristics of leadership for change will be revised. Due to the lack of CLIL research focusing on this area, the revision will rely on previous general studies on leadership.

3.3.2. Characteristics of Leadership for Change.

Because of the impact leadership has on both students' learning and school improvement, it is worth identifying what leaders' **characteristics and actions** lead to this improvement. First of all,

for leaders to promote and encourage change, they need to have a **throughout and deep knowledge of the organisation** and the people working in it (Antúnez, 1998; Bolden, 2011; Bolívar, 2016; Fullan & Hargreaves, 1992; Hargreaves & Fink, 2003). This deep knowledge of the organisation needs to be used to determine the ethos of the school and to establish and ensure that the teaching staff has a **shared vision, goals and value system** (European Commission, 2012; Gairín & Muñoz-Moreno, 2008; Leithwood et al., 2006; López-Yañez, 1992). This shared vision must be ideally based on a moral purpose (Fullan, 2003; Hargreaves & Fink, 2003). Leaders should share these values to use them to build the school ethos (Fullan & Hargreaves, 1992; López-Yañez, 1992; Murillo, 2003) and reflect these ethos and goals in the school's official documents. Indeed, evidence suggests that the communication of this shared vision appears to have a positive influence on collaborative learning-directed leadership (Hallinger & Heck, 2011). The identification of a shared purpose and the deep knowledge of the context of the organisation should be used by leaders to **plan the actions to be carried out** (Gairín, 1998; Gairín & Muñoz-Moreno, 2008; Harris, 2013; Leithwood et al., 2006; López-Yañez, 1992), but also to be aware of the capacity of the organisation for the pursued change (Harris & Lambert, 2003).

Another important condition for effective leadership is that it has a **pedagogical purpose**; that is, the focus is on teaching and learning processes. A school leader has a pedagogical purpose when s/he coordinates the curriculum, does classroom observation, discusses with teachers the challenges they are facing and supports improvement processes (Murillo, 2003). Research shows that the positive influence of leaders increases when they focus on instruction and curriculum development instead of focusing on management and bureaucratic tasks (European Commission, 2012; López-Yañez, 1992; Murillo & Hernández-Castilla, 2015). Furthermore, sustained leadership is also based on the interaction between policies and practices (Fullan, 2003).

Another tasks of school leaders is to **continuously monitor and evaluate** the school's work (Stego, 1987), encouraging internal self-evaluation (Bolívar, 2016). This continuous assessment has to favour reflection on school performance and lead improvement efforts. Additionally, school leaders must monitor the processes of change, especially the impact on students' learning and the organisation (Gairín & Muñoz-Moreno, 2008).

Evidences seem to indicate that in those schools where leadership fosters **collaboration**, capacity for change is improved, as well as students' performance (Hallinger & Heck, 2011). According to Stego (1987), one of the main tasks of school leaders is to encourage collaboration to achieve the school's goals. In the same line, Fullan (2001) defends that leaders should

promote collaboration based on: a) clear standards; b) positive and high expectations; c) paying attention; 4) recognition; 5) transparency; 6) celebrating together and 7) setting the example. Likewise, leadership should safeguard coherence throughout the process (Fullan, 2003). This collaborative culture has to include the participation from the principal, grade-level heads and teachers (Hallinger & Heck, 2011). As Fullan and Hargreaves (1992, p.70) state, “it is possible to become collaborative despite the environment, but it is not possible to stay collaborative without active involvement and support from the environment.”

As has been stated for school-based conditions for change, collaboration should not only involve teachers, but the whole **educational community** (Escudero, 2004; Fullan & Hargreaves, 1992; Leithwood et al., 2006). Therefore, school leaders not only should exert a pedagogical leadership, but a leadership for change (Murillo, 2003). This **leadership for change** has to ensure pupils' improvement, as well as to inform about the change and its process so as to avoid misunderstandings (Leithwood et al., 2006). Therefore, school leaders have to create, maintain and improve a social system where all the members of the community define the school's ambitions (Stego, 1987).

The core of distributed leadership is to base the school improvement on the existing capacity within the school to increase this capacity (Stego, 1987). Therefore, **a learning organisation** is at the heart of distributed leadership (Hallinger & Heck, 2011). Evidence shows that successful leaders are those who distribute leadership to generate organisational learning and change (Harris, 2004). That is, there is a true intention to analyse and reflect on the school challenges to learn from them (Antúnez, 1998; Bolívar, 2016; Fullan et al., 2015; Hargreaves & Fink, 2003; Leithwood et al., 2006). This learning is sustained when attention is paid to people's individual characteristics (Antúnez, 1998; European Commission, 2012b), promoting their professional growth (Fullan, 2001; Fullan & Hargreaves, 1992) and improving teachers' performance (Leithwood et al., 2008).

One of the main tasks of school leaders is to create the necessary structures and allocate the **resources** in order to make possible all the other conditions, such as collaboration and focus on teaching and learning, among others. Therefore, school leaders have to make sure that the resources are aligned with the school's goals (Hallinger & Heck, 2011) and the teaching and learning purposes (Murillo, 2003), as well as time is allocated for teachers to work together (Harris, 2004).

Another task of school leaders is to use and develop **teachers' qualification** (Stego, 1987). A successful school leader not only will observe teachers' practices and discuss with teachers the faced challenges, but s/he will use this information to develop teachers' knowledge and capacity (Murillo, 2003). Therefore, the school leader will promote school-based training so as to overcome these challenges and needs. Qualifying teachers is important because it appears to have a great impact on leadership and not the other way around (Hallinger & Heck, 2011).

Finally, a meta-condition for successful and sustained school leadership is the development of structures and systems that enable **communication** (Antúnez, 1998; Leithwood et al., 2008), as well as the roles of each person are clearly stated. This communication channels should be used to share the goals, disseminate the results, collaborate and involve the educational community (Hallinger & Heck, 2011).

In short, as Fullan (2003) points out, citing Hackman (2002, p.31):

The likelihood of effectiveness is increased when a team (1) is a *real team* rather than a team in name only, (2) has a *compelling direction* for its work, (3) has an *enabling structure* that facilitates rather than impedes teamwork, (4) operates within a *supportive organizational context*, and (5) has available ample *expert coaching* in teamwork.

Research evidence also suggests that all these leadership conditions, as well as educational change benefit from leader's stability (Choi & Gil, 2017; Hallinger & Heck, 2011), especially in those schools that are located in low socio-economical contexts (Choi & Gil, 2017).

If the main conditions of sustained change and sustained leadership are plotted (Table 12), it can be observed that they are completely intertwined and one cannot occur without the other. Therefore, sustained change needs good leadership that develops the structures and the means not only to initiate a change, but also to ensure its sustainability and institutionalisation. Consequently, schools that plan to implement a CLIL project should consider both the conditions for school change and sustained leadership.

However, there are some **barriers or limitations that can damage leadership**. According to previous studies and research, apparently there are two main limitations: the diversity of school leaders' tasks and centralisation (Antúnez, 1998; Escudero, 2014; Murillo & Krichesky, 2012). Regarding the **diversity of school leaders' tasks**, it has been found that school leaders devote great part of their time to administrative and management tasks rather than on curriculum and instruction (Gairín & Muñoz-Moreno, 2008; MIF, 2017). Additionally, it seems that the recent educational law encourages the administrative and management role of the head teacher,

instead of his/her pedagogical role (LOMCE 8/2013 de 9 de diciembre, 2013). As for primary education, the European Commission’s (2012) report states that most school leaders spend on average 40% of their time to management and administrative tasks. In addition, the Eurydice (2013) report stated that, in the Spanish context, more than 10% of school managers have never participated in professional development activities. However, school leaders claimed that they supported teaching and instruction and ensured that there was a shared understanding regarding responsibility and curricula goals. Murillo et al. (2015) found that female school managers, from small and private schools, with more experience and training, were the ones who devote more time to curricular and instructional tasks, as well as to coordination and communication with the community.

Table 12. *Relationship between conditions for sustained changed and sustained leadership.*

CONDITIONS FOR SUSTAINED CHANGE	CONDITIONS FOR SUSTAINED LEADERSHIP
Leadership	-
Shared vision, goals and guiding value system	Shared vision, goals and guiding value system
Focus on teaching and learning	Focus on teaching and learning
Monitoring the process	Monitoring the process
Collaboration	Collaboration
Educational Community	Educational Community
Learning Organisation	Learning Organisation
Resources	Resources
Teacher qualification	Teacher qualification
Communication	Communication

Source: Own Elaboration.

On the other hand, regarding **collaboration**, Fullan and Hargreaves (1992) identified three types of bad collaboration that impede knowledge sharing and construction: 1) *balkanization*, collaboration in separated and competing groups, instead of as a whole; 2) *comfortable collaboration*, collaboration that is not extended at the classroom level; 3) *contrived collegiality*, the collaboration is controlled by the school management team and, therefore, collaboration is reduced to a set of formal, specific and bureaucratic procedures.

To conclude, the positive point that can be inferred from this revision is that all schools can improve independently of where they are in the process of school improvement. The conditions for educational change and successful leadership may be an ideal rather than a reality. However, this ideal can help schools to move forward from their current organisational level or stage towards a higher level; that is, toward an organisation that learns and creates knowledge. This learning will only be possible if it represents a real need, the community is involved and committed, as well as collaborates and works towards a shared purpose. Therefore, any school can initiate the complex process of CLIL implementation.

Chapter 4. CLIL Teacher Education

The revision of school-based conditions for CLIL implementation in chapter 3 has shown that teacher qualification is an essential condition to conduct a sustained change. For this reason, the purpose of this chapter is to review CLIL teacher education for CLIL implementation. First, the competences CLIL teachers are expected to develop will be reviewed. Additionally, it will be explored whether these competences are similar to those of any teacher. This revision will start with the conceptualisation of competence and competence-based education and will finish with the identification of CLIL teachers' competences.

After identifying CLIL teachers' competences, the focus will be moved on current CLIL teacher education. This revision will start summarising CLIL teacher education and the contents of the training that previous studies have mentioned. Subsequently, an extensive analysis of CLIL teachers' training needs will be done. Finally, it will be reviewed what the characteristics of successful initial teacher education programmes are, as well as some examples of CLIL teacher education courses.

4.1. CLIL Teachers' Competences

In this section, it will be summarised the origins of competence-based education and the concept of competence. Then, the identified key teacher's competences will be outlined and compared to those of CLIL teachers.

4.1.1. Competence-Based Education

4.1.1.1. Origins of European Competence-Based Education

The European Council held in Lisbon at the beginning of the new millennium established the education guidelines for the next decade. The aim was to transform Europe by 2010 "into the most dynamic and competitive knowledge-based economy in the world, delivering sustained growth, generating more and better jobs and creating greater social cohesion" (European Council, 2000, p.2). Even though competitiveness in the global economy was one of the main reasons to shift towards a new education model, there were also other reasons, such as coping with the quick change and obsolescence of knowledge and skills; preparing students to question the consequences of change; prepare students to live in a digital era; and make students aware of the danger of inequalities (Halász & Michel, 2011).

In order to create a knowledge-based Europe, strong emphasis was put on improving Education and Training by 2010 on the basis of **lifelong learning** (European Commission, 2002; Gordon et al., 2009). Lifelong learning was defined as “all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competences with a personal, civic, social and/or employment-related perspective” (European Commission, 2002, p.7). As a consequence, education should help learners develop the competences and strategies that would allow them to continuously update and upgrade knowledge, skills and domains. Therefore, one fundamental issue was to identify the key competences that would provide learners with a lifelong learning perspective (Gordon et al., 2009).

However, the **restructuring of the higher education** system within the European Higher Education Area (EHEA) faced a number of challenges, being one of them the teaching profession. The **teaching profession** includes all people involved in teaching, educating, managing learning or teacher educators at all education levels (European Commission, 2012b). Educators not only have to overcome the challenges of the knowledge-society and globalisation, but also have to adapt to the use of new technologies (ICT) in their profession, apply learner-centred methodologies and facilitate access and participation (European Commission, 2002), as well as equip learners with those basic skills that will allow them to become lifelong learners. In fact, teachers are placed more responsibilities and are expected to successfully develop a range of diverse tasks (Marcelo, 2011). Therefore, teaching and learning becomes a complex, multifaceted, value-laden task. Consequently, teachers have to acquire and develop those competences that will allow them to innovate and adapt to the new teaching demands (Caena, 2011).

Even though the aims of Lisbon European Council led to restructuring Higher Education and the encouragement of competence-based education, the truth is that **coherent structures are lacking** and many of the elements promoted have not been implemented on large scale due to cultural and institutional constraints (Caena, 2014b; Olsen, 2005; Struyven & De Meyst, 2010). Additionally, in the context of this study, **the outcomes of competence-based teacher education are diverse**: while there are some competences that are fostered, others appear to be neglected (AQU, 2014, 2015; Cano & Fernández-Ferrer, 2016; Freixa, 2017). Moreover, it seems that **initial teacher education is not offering enough and varied learning experiences**. Consequently, newly-qualified teachers perceive that they are not able to confront a variety of problematic contexts and situations (AQU, 2014). There have been several attempts to identify teachers' key competences and to develop teacher education frameworks (European Commission, 2013b;

Piesanen & Välijärvi, 2010; UNESCO, 2011). However, there is still not generally agreed what teachers should *know* and what they *should be able to do*. In addition, not only is there a lack of agreement on the competences teachers should acquire, but also at what point in the teaching career they should develop them: Initial Teacher Education (ITE), Early Career Period (ECP) or Continuing Professional Period (CPP)¹⁴.

Therefore, it becomes crucial and pertinent to identify what competences teachers should develop, what level of attainment need to acquire by the end of initial teacher education in order to successfully do their job, as well as whether different competences are needed for different teaching specialisations. This analysis has to lead to the identification of CLIL teachers' competences and analyse if these competences are similar to those of any teacher.

4.1.1.2. Conceptualisation of Competence-Based Education

The term competence has been understood and defined in different ways. From McClelland, (1973), who understood a competence as a specific set of skills to perform in a given profession, to Barnett (2001) among others (Bolívar, 2008; Gimeno, 2008) who have criticised this restrictive view of competence and have claimed that competences should be understood holistically. Indeed, some of the differences between the definitions of competence are due to the underlying conceptualisation of competence: whether they are understood as holistic or technical (Cano, 2008; Tardif, 2008; Tejada Fernández & Ruiz Bueno, 2016; Villardón Gallego, 2006). In addition, some definitions have a stronger professional focus than others. Competences are **conceptualised holistically** when they are understood as 'knowing to act' both professionally and as a citizen. In this case, their acquisition is not the result of repetitive practices, but the complex integration of cognitive processes, initiative, transfer and innovation (Cano, 2008; Villardón Gallego, 2006). On the contrary, a competence is **conceptualised technically** when it is understood as a series of standards that need to be acquired to do a specific action or profession (Cano, 2008; Tejada Fernández & Ruiz Bueno, 2016). Choosing one conceptualisation or another will have consequences on the curriculum provision and competence-based education.

The European Council, based on Deakin Crick's (2008) definition, has described competence as a complex combination of knowledge, skills, understanding, values, attitudes and desire which lead to effective, embodied human action in the world, in a particular domain (European Commission, 2013b). This definition has a technical and professional perspective. On the other

¹⁴ Other similar terms will be used during this work as synonyms to refer to Initial teacher education (pre-service education, teacher student, pre-service teacher) and Continuing Professional Period (On-going development, in-service teacher education).

hand, the Catalan Basic Education Curriculum has defined competence as: “a person’s capacity to solve real problems in different contexts integrating knowledge, skills, attitudes and other social and behavioural components that are mobilised together to achieve an efficient and successful action” (Decret 119/2015 de 23 de Juny, 2015, p. 5). This definition is in line with the one proposed by the Spanish Ministry of Education (Orden ECD/65/2015 de 21 de enero, 2015) since competence is defined as ‘know-how’ that is applied in different academic, social and professional contexts. In both cases, competences are defined from a holistic point of view since competence is defined within the framework of basic education.

In the Report *Teachers’ Core Competences* (Caena, 2011), competence is defined as a holistic concept that encompasses a dynamic combination of knowledge, understanding and skills. Competence can be demonstrated in a certain point along a continuum. Therefore, being competent is not a dichotomous state (either you are or not competent), but it is a developmental state along a continuum. Tardif (2008, p. 3) defined competence as “a complex know-how to act that is based on the mobilisation and use of a variety of resources” (p.3). In the same line, Rogiers (2007, p. 27) defined competence as a “group of capacities, applied on specific contents, categories, type or group of situations to solve problems”. On the other hand, Perrenoud (2004, p.8) defines competence as “the capacity to mobilise cognitive resources to face a type of situations”. That is, competences are neither knowledge nor skills or attitudes, although they are mobilised in context. Even though there are analogous contexts, each context is different and unique. Therefore, competences involve complex cognitive processes supported by mental schemes which allow determining and carrying out an action adapted to the context.

While there is a certain agreement among the definitions above in terms of integration of different types of knowledge and resources, some definitions put the emphasis on different aspects. That is, official definitions tend to relate being competent with being *efficient*, while the other definitions presented above put the emphasis on *complex cognitive processes to face different situations in a given context*. In addition, some definitions adopt a technical perspective, whereas others conceptualise competence holistically. For the purpose of this study, **competence will be defined as the ability to mobilise and integrate complex knowledge, skills and attitudes rapidly, properly and creatively to solve challenging situations in a given context.**

Even though one can expect that the competences that a person needs are extensive, some scholars and frameworks consider that not all competences are equally necessary to become an active citizen in personal, social and professional spheres. For this reason, there have been some

efforts to identify key competences (Figure 10). A **key competence** is that one that needs to be mastered for lifelong learning and to develop a profession successfully (Rogiers, 2007). However, not all key competences are considered to be specific of a field of knowledge. Consequently, some distinctions between competences are made. For instance, Tuning project (González & Wagenaar, 2002) classified competences within two wide categories: cross-curricular and specific¹⁵ competences. A **cross-curricular competence** refers to a competence that is necessary and can be developed in any field of knowledge, as well as it is considered important for certain social groups. A **specific competence** is associated to a given field of knowledge (de Miguel, 2006).

In the case of teacher education, the terms *teaching competence* and *teacher competences* are also used. **Teaching competence** is linked to the action of the teacher in the classroom, while a *teacher competence* considers the multi-faceted roles of the teacher on multiple levels (Caena, 2011). **Teacher competences** are complex combinations of knowledge, skills, understanding, values and attitudes that lead to effective action in situation (European Commission, 2012b). Therefore, developing teachers' competences will imply considering the knowledge area (subject matter, curricular and pedagogical knowledge, organisational aspects, learning theories, evaluation and assessment processes...), the procedural skills (planning, coordinating, managing students, monitoring and assessing learning...) and the attitudes, beliefs and values (Caena, 2011). However, for the purpose of this doctoral dissertation, **the analysis of teacher's competences will be focused on key competences for the teaching profession** and the terms cross-curricular and specific competence will be used to, if it is necessary, distinguish general from specific competences for the teaching profession.

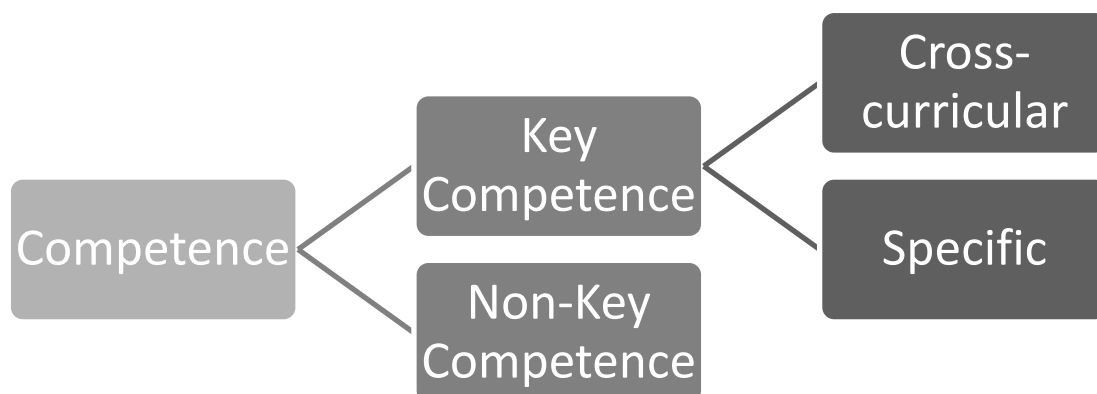


Figure 10. Competences' classification. Source: Own Elaboration.

¹⁵ Different labels have been used to refer to these two types of competence. For instance, cross-curricular competences have also been referred as generic, transversal or general. Specific competences have also been labeled as professional competence, for example.

The competence-based approach has three main aims (Rogiers, 2007): first, stress the competences students need to develop. Second, provide meaningful learning through the integration and application of what the student is learning. Third, certify the student's learning in terms of solving specific situations.

From the stated above, it can be inferred that a competence implies (Cano, 2015, p.23):

- Knowledge integration. That is, not only having knowledge (concepts, abilities, capacities, attitudes...), but also knowing how to select and integrate this knowledge.
- Practical tasks in which the students integrate and apply their knowledge to solve the assignments.
- Solve the tasks contextually by analysing each situation and deciding what knowledge is necessary.
- Lifelong learning. Competences are developed through the life span.
- Autonomous decision-making and competences' development.

Furthermore, competence-based education should promote students' decision-making, critical thinking and problem-solving skills. Therefore, learning experiences need to be contextualised, relevant and meaningful and encourage reflective thinking (Gordon et al., 2009). On the other hand, competences' assessment implies offering tasks that allow assessing the intended competences (Cano, 2015; de Miguel, 2006; Rogiers, 2007); that is, students must use and integrate different types of knowledge, procedures and attitudes to solve the task.

Based on the proposed definition and classification of competences, the purpose of the following section will be revising what previous literature has said about teacher's competences in general and, more specifically, about CLIL teacher's competences.

4.1.2. Teacher's Competences

4.1.2.1. Teacher Quality vs. Teacher Efficiency

The impact of teaching and teacher quality on students' learning and achievement has been widely studied (Barber & Mourshed, 2007; Bokdam, Van den Ende, & Broek, 2014; Hattie, 2003). It has been found that, after individual characteristics of students, teachers' practices are the main source of variance among learners' outcomes (Hattie, 2003, 2012). It is what teachers know, do and care, but above all, their pedagogical knowledge what has a major impact on students' learning (Darling-Hammond, 2000). For this reason, it has been stated that "the quality of an education system cannot exceed the quality of its teachers" (Barber & Mourshed, 2007,

p.17). The relevance of teacher education for quality CLIL teaching is also true. In fact, training opportunities, the support of teaching resource centres and the availability of teaching materials are some of the factors that can ensure CLIL success (Mehisto, 2008).

Due to current challenges and the main impact teaching has on learning, governments and policymakers emphasise the importance of teacher education. For instance, the European strategy “Education and Training” work programme has stressed the importance of teacher qualification to improve education in both 2010 and 2020 community strategic goals (European Commission, 2013a). Apparently, one common aspect that all top-performing school systems recognise is the need to improve instruction. This improvement is made by getting the right people to become teachers, make them effective instructors and ensuring that the system is able to deliver the best possible instruction for every child (Barber & Mourshed, 2007).

The final aim of developing teacher competences should be to prepare teachers for their job and, thus, provide quality teaching to their students. Although it has been widely studied the effects of quality teaching on students’ performance, frequently quality teaching has been replaced for effective teaching.

Even though there is a tendency towards teacher efficiency in the European documents, it is also true that it is quality teaching the one that leads to effective teaching not the other way around. However, the aim of teaching that is pursued, efficiency or quality, will also determine how competence is conceptualised (technically or holistically) and the type of competence-based education that is provided. Within the framework of this doctoral thesis, the focus will be on **quality teaching**. Therefore, the purpose of revising CLIL teacher’s competences and qualification is to analyse what teacher education should provide to CLIL teachers to guarantee quality teaching and, above all, students’ learning.

4.1.2.2. Teacher’s Competences for 21st Century Education

The knowledge-based society, new technologies, new ways of communication and accessing knowledge, globalisation, the migration movements, the inclusion of students with special needs in the classroom, among other aspects, are changing the roles of teachers and schools, as well as the expectations of society towards education (OECD, 2009). Currently, teachers not only have to teach those skills and knowledge that are easier to teach and test, but ways of thinking and working, tools for working and skills around citizenship, life and career, as well as personal and social responsibility to succeed in modern democracies (European Commission, 2013a, 2018b). The European Commission (2007) developed a European Framework of Key Competences that included eight core competences for lifelong learning (Table 13). This framework has been

revised and some modifications are proposed for the new European Framework (European Commission, 2018a).

Table 13. *Comparison of the European Frameworks of Key Competences for lifelong learning.*

European Framework of Key Competences for lifelong learning (2007)	European Framework of Key Competences for lifelong learning (2018)
1. Communication in the mother tongue. 2. Communication in a Foreign Language. 3. Mathematical Competence and basic competences in science and technology. 4. Digital Competence. 5. Learning to Learn. 6. Social and civic competences. 7. Sense of initiative and entrepreneurship. 8. Cultural awareness and expression.	1. Literacy competence. 2. Language Competence. 3. Mathematical competence and competence in Science, Technology and Engineering. 4. Digital Competence. 5. Personal, social and learning competence. 6. Civic Competence. 7. Entrepreneurship competence. 8. Cultural awareness and expression.

Source: Own Elaboration

The selection and definition of key competences are not neutral since it reflects the choices made at a particular point in time in a given society (Caena, 2011, 2014a; Gordon et al., 2009). Therefore, competence selection will depend on how education is conceptualised, what the society and economic needs are, as well as the political model. However, all these competences have to be conceived as equally important since they contribute to the development of active citizens and a well-functioning society. Additionally, these domains overlap and, therefore, the development of one of these key competences depends on the support of the others (European Commission, 2018a). Apart from these core domains, it is stressed that other skills play a key role in the acquisition of these competences, such as critical thinking, creativity, initiative, problem solving, risk assessment, decision-making and constructive management of emotions (Halász & Michel, 2011).

Even though some competences are easily linked to traditional curricular subjects (e.g. Mathematical competence to mathematics or language competence to language subjects) (Gordon et al., 2009; OECD, 2005), it does not mean that they cannot be developed in a cross-curricular way. In fact, it would be incoherent to encourage CLIL provision models, while thinking that language competences are only achieved in the language subject.

The implementation of a competence-based approach and the establishment of a European Framework of Key Competences for Lifelong Learning have **implications on teacher education**. First, for students to develop these key competences throughout education, they need teachers that provide learning experiences and contexts that allow working and developing key competences. Therefore, the extent to which teachers are able to apply a competence-based

approach will depend on their own training (Conner & Sliwka, 2014). Consequently, **competence-based education needs to be embedded in teacher education** (ITE, early career and ongoing development) so that teachers can learn the characteristics of this approach and transfer them into their teaching practice through vicarious learning (European Commission, 2018a).

Consequently, identifying **key teachers' competences** is paramount. Most European countries have national frameworks for teacher education. Nevertheless, there tends to be a mismatch between these national qualifications and general higher education requirements and practices (Caena, 2014b). There have been several attempts to propose some principles that foster teacher education and teacher competences. Conner and Sliwka (2014, p.166), based on the report *The Nature of Learning: Using research to Inspire practice* (Dummont, Istance, & Benavides, 2010), established seven transversal principles for teacher education. According to these authors, teacher education should enable practitioners to:

1. Develop learning environments that recognise learners as the core participants and promote student-centred approaches.
2. Base the pedagogical decisions on the social nature of learning theories and promote collaborative learning.
3. Attune the teaching practice to learners' motivations and emotions.
4. Create a learning environment that is sensitive to the individual differences among the learners and include their prior knowledge.
5. Demand hard work and challenge for all without excessive workload.
6. Establish clear expectations and use assessment strategies consistent with these expectations.
7. Promote horizontal connectedness across areas of knowledge and subjects as well as the community and the wider world.

In order to create the learning environment described above, **teachers need to develop several competences**. Different frameworks¹⁶ defining Teachers' Key Competences have been proposed (Caena, 2011, 2014b; Conway, Murphy, Rath, & Hall, 2009; European Commission, 2010a, 2013b; González & Wagenaar, 2002; Gordon et al., 2009; Moreno-González, 2011; Perrenoud, 2004b; Piesanen & Välijärvi, 2010; UNESCO, 2011). The different proposals have organised and labelled teachers' competences in different ways, but there is a general acceptance that

¹⁶ A framework is "a 'containing structure' for descriptors of acquired formal knowledge or enhanced knowledge and skills along the career" (Caena, 2014b, p.314)

teachers need knowledge, knowing how to do and knowing how to act. However, it is worth highlighting that, even though competence has been described as the integration of different kinds of knowledge, skills and values, some official documents establishing frameworks for teacher's competences tend to describe competences in terms of necessary knowledge (e.g. content knowledge). Likewise, AQU's reports (2014, 2015) refer to knowledge, such as assessment knowledge, as a teaching competence. Nevertheless, according to the definition adopted in this PhD, knowledge cannot be regarded as a competence, but as a key component to be competent.

The proposed teacher's competences have been revised in order to align them (Table 14). These competences are believed to be key for any teacher, independently of their specialisation, stage or context. Some frameworks identify content knowledge and pedagogical content knowledge as a key competence for educators. Nevertheless, according to the definition of competence adopted in this PhD (the ability to mobilise and integrate different types of knowledge, skills and attitudes to solve a problem in a given context), content knowledge and pedagogical content knowledge cannot be regarded as competences. This does not mean that they are not key elements for a teacher, but it is considered that they should be regarded as essential requisites to be competent instead of competences. That is the reason why a distinction is made between knowledge and competences in Table 14.

Even though the different frameworks for teacher's competences aim to identify the core domains, there is a general agreement that teachers should have a **sound knowledge of the discipline** they are teaching (Bransford et al., 2005; Caena, 2011, 2014; Conway et al., 2009; Darling-Hammond, 2000; European Commission, 2010, 2012, 2013a; Gordon et al., 2009; Hammermass et al., 2005). In fact, the European Commission (2013a) states that teachers should have sound knowledge of the subjects they teach. It is believed that for quality teaching, teachers need to possess a conceptual map of their discipline, an understanding of how knowledge is developed and validated in different fields of knowledge, an understanding of why that subject is important, as well as, how knowledge of that subject is communicated (Hammermmas et al., 2005; Schulman, 1986). Additionally, research on school effectiveness has also highlighted teachers' content knowledge as a condition for effective teaching (Sammons et al., 1995).

Table 14. *Classification of teachers' key competences and knowledge.*

KNOWLEDGE	
TYPE OF KNOWLEDGE	REFERRED BY...
Content Knowledge	(Bransford, Darling-Hammond, & LePage, 2005; Caena, 2011, 2014b; Conway et al., 2009; Darling-Hammond, 2000; European Commission, 2010a, 2012b, 2013b; Gordon et al., 2009; Moreno-González, 2011)
Pedagogical Content Knowledge	(Barber & Mourshed, 2007; Caena, 2011, 2014b; Conner & Sliwka, 2014; Conway et al., 2009; Darling-Hammond, 2000; González & Wagenaar, 2002; Gordon et al., 2009; Hammerness et al., 2005)
COMPETENCES	
COMPETENCE	REFERRED BY...
Pedagogical	(Caena, 2011, 2014b; Conner & Sliwka, 2014; Conway et al., 2009; Darling-Hammond, 2000; González & Wagenaar, 2002; Gordon et al., 2009; Perrenoud, 2004b; UNESCO, 2011)
Assessment	(Bransford et al., 2005; Caena, 2011, 2014b; Conner & Sliwka, 2014; Conway et al., 2009; Darling-Hammond, 2000; European Commission, 2010a, 2012b, 2013b; González & Wagenaar, 2002; Gordon et al., 2009; Hammerness et al., 2005; Perrenoud, 2004b; UNESCO, 2011)
Classroom Management	(Bransford et al., 2005; Caena, 2011, 2014b; Conner & Sliwka, 2014; Darling-Hammond, 2000; European Commission, 2012, 2013b; González & Wagenaar, 2002)
Inclusion	(Caena, 2011, 2014b; Conner & Sliwka, 2014; González & Wagenaar, 2002; Moreno-González, 2011; Perrenoud, 2004b)
Digital	(Caena, 2014b; Moreno-González, 2011; Perrenoud, 2004b; UNESCO, 2011)
Materials	(European Commission, 2012a, 2013b; Moreno-González, 2011)
Self-Reflection	(Caena, 2011, 2014b; Darling-Hammond, 2000; European Commission, 2012a, 2013b; González & Wagenaar, 2002; Hammerness et al., 2005; Perrenoud, 2004a)
Communicative	(Caena, 2014b; González & Wagenaar, 2002; Moreno-González, 2011; Perrenoud, 2004b).
Research & Innovation	(Caena, 2011, 2014b; European Commission, 2013b; González & Wagenaar, 2002)
Learning to learn	(Caena, 2011, 2014b; Darling-Hammond, 2000; European Commission, 2012a, 2013b; González & Wagenaar, 2002; Hammerness et al., 2005; Perrenoud, 2004a)
Collaborative	(Caena, 2011, 2014b; Conway et al., 2009; European Commission, 2012b, 2013b; González & Wagenaar, 2002; Moreno-González, 2011; Perrenoud, 2004b)
Leadership & Organisation	(González & Wagenaar, 2002; Perrenoud, 2004b; UNESCO, 2011)

Source: Own Elaboration

Although subject knowledge is important, it is equally important knowing how this content is learnt (Darling-Hammond, 2000). For this reason, it has been stated that good teaching is based on **Pedagogical Content Knowledge**. Pedagogical content knowledge refers to the dimensions of subject matter knowledge *for teaching* (i.e. the most useful forms of representation of the content ideas and the ways of representing and formulating the subject) (Schulman, 1986). Pedagogical content knowledge also includes learning theories and curricular knowledge (Barber

& Mourshed, 2007; Bransford et al., 2005; Caena, 2011; Conway et al., 2009; Darling-Hammond, 2000; European Commission, 2010, 2013a; Gordon et al., 2009; Hammermmas et al., 2005). This knowledge needs to be used to base the pedagogical decisions. According to Bransford et al. (2005), there are three main pedagogical areas that any teacher needs to acquire:

- Knowledge of learners and how they learn and develop within social contexts.
- Conceptions of curriculum content and goals: an understanding of the subject matter and skills to be taught in light of the social purposes of education.
- An understanding of teaching in light of the content and learners to be taught, as informed by assessment and supported by classroom environments.

Apart from essential knowledge, the revision of previous teacher's competences frameworks has allowed to identify 12 different key competences for teachers. Note that, even though the competences will be presented separately, they overlap and intertwine in reality (Cano, 2015).

Pedagogical Competence refers to the ability to plan, design, implement and evaluate learning environments that allow students to develop their own competences (Caena, 2014b; Conner & Sliwka, 2014; González & Wagenaar, 2002; Perrenoud, 2004b; Piesanen & Välijärvi, 2010; UNESCO, 2011). The **Assessment Competence** is the capacity to monitor students' progress through the use of different strategies and instruments and the involvement of different stakeholders in order to make decision that orientate future practices (Bransford et al., 2005; Caena, 2011, 2014b; Conner & Sliwka, 2014; Conway et al., 2009; Darling-Hammond, 2000; European Commission, 2010a, 2012b, 2013b; González & Wagenaar, 2002; Gordon et al., 2009; Hammerness et al., 2005; Moreno-González, 2011; Perrenoud, 2004b; UNESCO, 2011).

Besides pedagogical and assessment competence, teachers should have the ability to adjust the teaching and learning process according to students' needs, motivation and interests, as well as favour incidental learning. That is, teachers should develop their **Classroom Management Competence** (Bransford et al., 2005; Caena, 2011, 2014b; Conner & Sliwka, 2014; Darling-Hammond, 2000; European Commission, 2012, 2013b; González & Wagenaar, 2002). However, **Inclusion Competence** is also necessary because it is the ability to create learning environments that are sensitive to students' individual differences, and to provide support to these differences to foster the equality principle¹⁷ (Bransford et al., 2005; Caena, 2011, 2014b; Conner & Sliwka, 2014; Darling-Hammond, 2000; European Commission, 2012, 2013b; González & Wagenaar, 2002).

¹⁷ The *equality principle* implies that each student has the right to learn and acquire the basic cultural knowledge to become an active citizen (Bolívar, 2016).

The **Digital Competence** refers to the ability to integrate ICT tools in the teaching and learning process adjusting them to the educational goals (Caena, 2014b; Moreno-González, 2011; Perrenoud, 2004b; UNESCO, 2011). The **Materials competence** refers to the ability to search and develop learning materials from a wider range of sources. These materials have to allow learners to acquire the key competences and provide students with more control of their learning (European Commission, 2012a, 2013b; Moreno-González, 2011).

All the aforementioned competences are closely related to the teachers' task in the classroom with the students. However, teaching implies more actions than the ones actually occurring in the classroom setting, as discussed in chapter 3. Therefore, all the competences that will be presented now will refer to abilities that not only are important for what happens in the classroom, but for everything that the teaching practice involves, as well as collective competences to foster professional learning communities (Bolívar, 2016; Hargreaves & O'Connor, 2017). Consequently, some of these competences will be only completely developed if school-wide learning is encouraged. These competences are: self-reflection, research and innovation, communication, learning to learn, collaborative and leadership and organisation competences.

In a quick and continuous changing society, teacher's **reflective and learning to learn competences** are highly valued (Barber & Mourshed, 2007; Caena, 2011, 2014a; Darling-Hammond, 2000; European Commission, 2012b, 2013a; González & Waagener, 2002; Perrenoud, 2004a). "Beginning teachers need to have a command of critical ideas and skills and, equally important, the capacity to reflect on, evaluate, and learn from their teaching so that it continually improves" (Bransford et al., 2005, p.3). Since it is impossible for a single teacher to develop all the stated competences, teachers need to acquire a habit of 'thinking in action' about teaching, children and their role as teachers, in order to reflect and learn from practice (Schön, 1983). This reflection and learning have to allow teachers to self-regulate their own practice and orientate their ongoing development (Perrenoud, 2004a). However, this competence will be perceived as more or less relevant depending on how teaching and learning are conceived. On the one hand, teaching and learning can be understood as a process in which knowledge is transmitted and learned and, consequently, understanding will come later. On the other hand, teaching and learning can be conceptualised as the students' active participation (questioning and deep thinking) in which pupils' learn from shared discussion with teachers and peers (Black & Wiliam, 1998). The competence-based approach, as it has been defined in this doctoral thesis, should foster the latter.

Research and Innovation competence has been highlighted as another essential domain for teachers (Caena, 2011, 2014a; European Commission, 2013a; González & Wagenaar, 2002). It refers to the ability to use research to inform and improve practice. However, this research ability will not be only useful to inform practice, but also to grow school knowledge and build up communities of practice (Caena, 2014a). In addition, the reflective practice and research has to be based on critical thinking (Bransford et al., 2005; Caena, 2011) and problem-solving skills (Caena, 2014a; Darling-Hammond, 2000; Gordon et al., 2009).

Communicative competence is a core competence for a teacher because it is the means for the teaching and learning process, as well as for all the other activities that are developed in a school. The communicative competence refers to the ability to adapt the use of the language according to the purpose, the context and the audience (students, teachers, families, inspectors...), as well as identifying the language *of* and *for* learning (Caena, 2014b; González & Wagenaar, 2002; Moreno-González, 2011; Perrenoud, 2004a).

A teacher should not be seen as an individual and isolated agent, but as a part of a teaching team and an educational community. For this reason, **collaborative competence** is essential. That is, teachers need the ability to work together with other agents (colleagues, families, external organisations...) to learn from this collaboration and improve the teaching practice (Caena, 2011, 2014b; Darling-Hammond, 2000; European Commission, 2012a, 2013b; González & Wagenaar, 2002; Hammerness et al., 2005; Perrenoud, 2004a). However, for this collaboration to occur it is necessary the ability to lead the educational practice and create and adapt the organisational structures according to the educational goals. Therefore, **leadership and organisational competence** is also necessary for a teacher (González & Wagenaar, 2002; Perrenoud, 2004b; UNESCO, 2011).

The above description of teacher's competences proves what other studies have already highlighted: teacher competences are extensive and it is almost impossible that a single individual can develop all of them up to the same extend, especially during initial teacher education. However, these competences are closely related to some of the conditions for effective school improvement, mentioned in chapter 3. Therefore, school change and school improvement and teachers' professional development are closely interwoven. For this reason, several studies have mentioned the key competences that should be addressed and acquired during initial teacher education. In this respect, the European Commission (2013) establishes four fundamental aspects that should be developed during **pre-service teacher education** based

on six broad paradigms: reflexivity, professional awareness, individualisation, cooperation, personal mastery and integration. The four fundamental aspects are:

- *Learning to think* as a teacher based on the critical examination of one's beliefs and the development of pedagogical thinking.
- *Learning to know as a teacher* (epistemological awareness, knowledge of school curricula, classroom management, methodologies, learning theories and assessment).
- *Learning to feel* (professional identity).
- *Learning to act as a teacher* based on the integration of thoughts, knowledge and dispositions in practice.

Teacher's competences are diverse and they continuously intertwine in the teaching practice.

Identifying the core teacher's competences and elaborating frameworks may be valuable for several reasons. First of all, teacher's competences frameworks may be useful to establish sound grassroots to plan and provide coherent education, not only during initial teacher education, but also as a career-long provision. Therefore, the identification of key competences can lead to designing a competence map¹⁸. It becomes paramount to identify the key competences teachers need to acquire during initial teacher education so that educators can develop their job successfully and, thus, the learning of the children that have inexperienced teachers is not affected (Darling-Hammond & Bransford, 2005). Secondly, teacher's competences frameworks can make teachers aware of their needs in order to engage in **ongoing development**. In addition, these frameworks can be used as instruments to assess the development and acquisition of teachers' competences (European Commission, 2013a). However, this tool can also have some shortcomings. These frameworks should not be used to establish professional standards since this can lead to deprofessionalism and fragmentation, as well as undermining the variety and creativity of teacher practices (Caena, 2014). However, the European Commission (2013) warns that the use of these frameworks can be done in two different ways: one the one hand, to promote teachers' agency, empowerment and responsibility or, on the other hand, to intensify external control. Ideally, teacher's competences frameworks aim to foster the former.

In sum, it is generally agreed that teacher's competences are extensive. Some of them are believed to be key and, therefore, they need to be developed during initial teacher education and throughout ongoing development. Other competences are also increasingly relevant, but they will be developed later, during the teaching practice and ongoing development. Teacher's

¹⁸ A competence map is an instrument that represents the competences that should be developed, when they should be developed and to what level (Cano, 2015).

Competence Frameworks should be used to identify these core competences and establish pathways for early career development and continuous teacher development. As it has already been stated, this section has revised the key competences for any teacher, independently of the educational stage, discipline and contextual conditions. In the following section, the competences associated to second language teachers and CLIL teachers will be analysed so as to compare them.

4.1.2.3. Second Language Teacher's Competences

Teacher's competences have tended to be analysed in general, even though the knowledge each competence involves may vary depending on the speciality. However, some efforts have been made to identify the profile of Language teachers (Table 15). As it occurred with the general teacher's competences, in some cases the domains are expressed as knowledge or skills, rather than as a competence.

Nunan and Lam (1998) proposed a set of domains for bilingual teacher preparation. Nevertheless, not all these domains can be regarded as competences. According to these authors, bilingual teachers should have: a) Language proficiency in both the target language(s) as well as the learner's language(s); b) Knowledge of linguistics and bili/multilingualism; c) an appreciation of the learners' culture and the ability to respond positively to the diversity of behaviour and cross-cultural contexts; d) methodological competence including appropriate collaborative work; e) the ability to utilise and adapt curriculum and develop materials; f) the ability to design assessment procedures for oneself and the learners; g) skills in school community relations; and h) classroom management competences.

Kelly and Grenfell (2002, 2004) identified and described the profile of language teachers. In Kelly et al. (2002), some recommendations were made relative to language teachers' education. These recommendations were classified in three broad areas: The required European infrastructure; the kind of language teachers should be able to produce and particular areas where more study was needed. The recommendations also include a profile of the ideal European Language teacher for the 21st Century. According to this work, the ideal 21st language teacher should be competent in the target language, use ICT for teaching and receive bilingual training, specifically for CLIL purposes. Finally, an ideal language teacher should also receive social and linguistic training.

This general profile led to the creation of the *European profile for Language Teacher Education* (Kelly & Grenfell, 2004). This profile established a framework to equip language teachers with the necessary skills and knowledge, as well as other professional competences. The profile

contains 40 items describing important elements divided in four sections: 1) structure; 2) knowledge and understanding; 3) strategies and skills; and 4) values. As for the knowledge and understanding, the profile establishes training in: language teaching methodologies; reflective practice and research; language competence; ICT for pedagogical purposes; ICT for personal planning, organisation and resource discovery; use of various assessment procedures and ways of recording learners' progress; and curricula knowledge. As for strategies and skills, language teacher education should provide language teachers with training in: contextual and individual diversity; assessment; teaching materials and resources; reflective practice; development of independent language learning strategies; professional ongoing development; implementation of curricula and syllabus; peer observation; CLIL; social and cultural values; teamwork, collaboration and networking.

Table 15. *Identified competences for foreign language teachers.*

KNOWLEDGE	
TYPE OF KNOWLEDGE	REFERRED BY...
Language Proficiency	(García, 2008; Kelly et al., 2002; Kelly & Grenfell, 2004; Nunan & Lam, 1998; Peacock, 2009)
Pedagogical Content Knowledge	(García, 2008; Kelly & Grenfell, 2004; Nunan & Lam, 1998; Wright, 2010)
COMPETENCES	
COMPETENCE	REFERRED BY...
Pedagogical	(Kelly & Grenfell, 2004; Newby et al., 2007; Nunan & Lam, 1998; Peacock, 2009; Wright, 2010)
Assessment	(Kelly & Grenfell, 2004; Newby et al., 2007; Nunan & Lam, 1998)
Classroom Management	(Kelly & Grenfell, 2004; Newby et al., 2007; Nunan & Lam, 1998; Peacock, 2009)
Inclusion	(Kelly & Grenfell, 2004; Nunan & Lam, 1998)
Digital	(Kelly & Grenfell, 2004; Wright, 2010)
Materials	(Kelly & Grenfell, 2004; Newby et al., 2007; Nunan & Lam, 1998)
Self-reflection	(Kelly & Grenfell, 2004; Nunan & Lam, 1998; Peacock, 2009; Wright, 2010)
Research & Innovation	(Kelly & Grenfell, 2004)
Learning to Learn	(Kelly et al., 2002; Kelly & Grenfell, 2004; Wright, 2010)
Collaboration	(Kelly & Grenfell, 2004; Wright, 2010)
Leadership & School Organisation	(Nunan & Lam, 1998)

Source: Own Elaboration

The *European Portfolio for Student Teachers of Language* (Newby et al., 2007) was elaborated in order to offer a framework to pre-service language teachers for recording and evaluating their progress in their journey to become effective foreign language teachers (Enever, 2014). The areas or domains established in this portfolio are: context, methodology, resources, lesson planning, classroom management, independent learning and assessment. As for language,

García (2008) states that bilingual teacher education programs should prepare teachers not only to acquire a high level of language proficiency, but to acquire language awareness. Language awareness or knowledge about language encompasses language proficiency, knowledge about the language systems and pedagogical practice.

Recent studies on second language teacher education have established three main areas of development during bilingual teacher education (Wright, 2010). A first goal would be training student teachers to become reflective practitioners who are able to collaborate with others and identify the previous learning experiences as a starting point for their teacher education. Secondly, second language teacher education should provide prospective teachers with learning and pedagogical content knowledge emphasising awareness-rising and collaborative learning, as well as respond to the challenges and opportunities of ICT in teaching and learning. Finally, teacher education should provide pre-service teachers with a set of tools that enable them to assess their personal and professional learning.

In fact, Peacock (2009) revised what previous literature had identified as constituents of adequate foreign language training. According to this revision, initial foreign language teacher education should provide training relative to language competence, pedagogical competence, classroom management and reflective practice. In addition, for a programme to be adequate, it should be coherent and connected.

Table 16. *Comparison of the knowledge and key competences for a general and a foreign language teacher.*

KNOWLEDGE	
GENERAL TEACHER	FOREIGN LANGUAGE TEACHER
Content Knowledge	Language Proficiency
Pedagogical Content Knowledge	Pedagogical Content Knowledge
COMPETENCES	
GENERAL TEACHER	FOREIGN LANGUAGE TEACHER
Pedagogical	Pedagogical
Assessment	Assessment
Classroom Management	Classroom Management
Inclusion	Inclusion
Digital	Digital
Materials	Materials
Self-Reflection	Self-Reflection
Communicative	-
Research & Innovation	Research & Innovation
Learning to learn	Learning to learn
Collaboration	Collaboration
Leadership & Organisation	Leadership & Organisation

Source: Own elaboration.

Based on the revision made, the overall impression is that, despite the nuances in the descriptive elements, the competences identified for foreign language teachers are similar or just the same as the ones identified for a general teacher (Table 16). However, it is worth noting that the frameworks and studies focused on foreign language teachers do not mention communicative competence. It is not known whether the communicative competence is taken for granted or whether linguistic proficiency is associated with being communicatively competent. In short, the comparison between general and foreign language teachers' competences raises the question whether there is a set of competences that are shared by all teachers, independently of their specialisation, and, thus the differences are in terms of the knowledge that is integrated in these competences, or the competences are different depending on teachers' specialisation.

4.1.3. CLIL Teacher's Competences

4.1.3.1. CLIL Teacher's Profile

The above revision of teacher's competences has revealed a complex and challenging scenario. Key competences for any teacher have been identified, but also those specific of foreign language teachers. Some frameworks for CLIL teachers' competences have also been proposed. However, when identifying CLIL teacher's domains, it is necessary to first define who the CLIL teacher is. **The CLIL teacher is the practitioner in charge of applying CLIL in the classroom with the students.** The teachers in charge of CLIL provision at primary level tend to be foreign language teachers, content teachers, a double specialist or the result of team-teaching between the content and language teacher (Pavesi et al., 2001). However, at the primary level, it seems that the system tends to favour that those teachers qualified in a foreign language are the most suitable ones to undertake CLIL provision (Barranco Izquierdo, Sanz Trigueros, Calderón Quindós, & Alario Trigueros, 2016).

Nevertheless, **the discussion of who the CLIL teacher should be is not absent of controversy.** Some scholars have clearly defended that content teachers with a good command of foreign language should be the ones in charge of CLIL provision (Alejo & Piquer, 2010; Cenoz, 2015b; Pavón Vázquez & Ellison, 2013; Wolff, 2002), whereas others assume that the foreign language teachers should be the ones implementing CLIL in the classroom (McDougald, 2015). This controversy may have different explanations. On the one hand, in general, there is a lack of specification of the qualification and requirements CLIL teachers should have (Eurydice, 2017a). On the other hand, there is a strong tradition for teachers to be trained as specialists and to establish a clear division between subjects, what CLIL somehow breaks. Traditional curricular

fragmentation has led to a lack of collaboration and linkage among teachers and subjects. This may partially explain why some forms of team-teaching, despite being strongly advocated (Nikula, Dalton-Puffer, & Llinares, 2013), appear to be difficult to implement in some contexts (Coonan, 2003).

In general, it has been accepted that **CLIL provision requires that teachers master one or more content subjects plus a foreign language** (Eurydice, 2006). However, this initial assumption unfolds some problems. First of all, it is unusual for CLIL practitioners to possess an equal level of academic and professional knowledge in both the content and the target language. Even in countries where teachers have a double specialisation in a content and language subject, such as Austria or Germany (Kong, 2009). Indeed, in the Catalan context, school management teams claim that there is a lack of teachers that are able to teach a content subject through an additional language (AQU, 2015). Apparently, teachers tend to lack the skill to integrate both content and language. That is, content-trained teachers often focus on content learning (Hoare, 2004; Kong, 2009), whereas language-trained teachers neglect content learning (Pessoa et al., 2007). Secondly, the implementation of CLIL provision may arise some feelings of professional intrusion or deprofessionalisation that may threaten the professional identity (Moate, 2014). In some contexts, language teachers fear to lose their relevance in students' foreign language learning (Halbach, 2014), whereas some content teachers believe their job is to teach the content and, thus, they do not have to focus on language because that is the language teacher's work (Bovellan, 2014). With regard to language teachers, Nikula et al. (2016) states that **the role of language teachers in CLIL setting may change** in two ways: on the one hand, students may have other linguistic needs and, on the other hand, language teachers are expected to collaborate with content teachers.

Consequently, CLIL provision should be based on the **development of 'professional learning communities' and team-teaching**, in the sense that content and language teachers work together sharing ideas, supporting classroom enquiry, networking with other CLIL teachers and evaluating rigorously the learning outcomes (Coyle, 2007). CLIL teaching is more successful when teachers are willing to open the borders of their discipline and start to share practices (Wiesemes, 2009). In addition, apparently, teachers' educational background (content or language) does not affect students' perception of their target language development (Lasagabaster, 2014).

The debate of who the CLIL teacher should be may make visible that **the traditional division of knowledge in clearly separated areas of specialisation is also well-rooted** in researchers and

some CLIL experts. If CLIL is based on and pursues integration, integration should permeate all levels: teacher education, curriculum, classroom practices... (de Graaff, 2016) and, therefore, the discussion and division among content and language teachers lacks foundation. Consequently, the 'best' CLIL teacher will be the practitioner/s that not only has the necessary content and language knowledge, but also the one able to integrate content and language at all levels.

According to the research agendas, **teacher education is essential for CLIL sustainability** (Coyle et al., 2010; Dalton-Puffer, 2018; Pérez-Cañado, 2012; Scott & Beadle, 2014). This programmes should be **competence-based and develop the required competences for the information age** (Asikainen et al., 2010). This training should share good CLIL practices in order to describe and reflect on CLIL pedagogy (Cenoz et al., 2014; Coyle, 2007). Teacher education, independently of initial or developmental, should take into consideration **subject-specific genres and literacies** (Dalton-Puffer & Smit, 2013; Nikula & Mård-Miettinen, 2014) and **content-related language** (Vollmer, 2008). Moreover, teacher education should provide the means for practitioners to develop their understanding of **integration** (Coyle et al., 2010; Dalton-Puffer & Smit, 2013; Mehisto, 2008), as well as addressing the needs of learners, creating their own resources and including the use of interactive tools (Coyle et al., 2010). Finally, CLIL teacher education should consider stakeholders' perceived training needs (Pérez-Cañado, 2012, 2016b).

In order to design CLIL teacher education for quality CLIL provision, it is necessary to know what competences teachers should develop, how the current training modalities are developing these competences and what training needs CLIL teachers have. For this purpose, CLIL teacher competences will be revised in the following subsection, whereas CLIL teacher education will be analysed in section 4.2.

4.1.3.2. CLIL Teacher's Competences

Traditionally, three intertwined domains have been identified for CLIL teachers: **foreign language knowledge** (Barranco Izquierdo, Sanz Trigueros, Calderón Quindós, & Alario Trigueros, 2016; Hillyard, 2011; Marsh, 2002; Mehisto, Marsh, & Frigols-Martín, 2008; Pavesi, Bertocchi, Hofmannová, & Kaziánka, 2001; Pavón Vázquez & Ellison, 2013; Pistorio, 2009; Whittaker & Acevedo, 2016), **methodological¹⁹ competence** (Ball, Kelly, & Clegg, 2015; Barranco Izquierdo et al., 2016; Hillyard, 2011; Lucietto, 2008; Marsh, 2002; Mehisto et al., 2008; Pavón Vázquez & Ellison, 2013; Pistorio, 2009) and **content knowledge** (Ball et al., 2015; Barranco Izquierdo et al., 2016; Hillyard, 2011; Pavesi et al., 2001).

¹⁹ In the context of this doctoral thesis, Methodology is used as a synonym of pedagogy, following the tradition of some English-speaking countries.

Even though language, methodology and content are defined as the three key competences of CLIL practitioners, the way these domains are understood and defined in some studies cannot be regarded as competences, according to the definition stated in this work. For instance, content is commonly identified as a basic competence for a CLIL teacher, but content is generally defined as general knowledge or specific knowledge of a curricular subject. Thus, it does not directly imply the applicability of this knowledge in the teaching practice. The same is true for **language knowledge**. However, more discrepancy is found in this domain. While some studies refer to language knowledge as just language proficiency (Hillyard, 2011; Marsh, 2002; Mehisto et al., 2008; Pavesi et al., 2001; Pavón Vázquez & Ellison, 2013; Pistorio, 2009), other studies define language competence as knowledge of the system embedded in social practices (Barranco Izquierdo et al., 2016; Whittaker & Acevedo, 2016).

As regards **methodological competence**, CLIL teachers should know how to plan and teach (Ball et al., 2015; Hillyard, 2011; Pavón Vázquez & Ellison, 2013; Pistorio, 2009) in order to integrate content and language (Barranco Izquierdo et al., 2016; Mehisto et al., 2008). This implies using learner-centred approaches and cooperative learning (Lucietto, 2008), as well as teaching and learning strategies that take into account different learning styles (Pistorio, 2009). Above all, CLIL teachers should be able to identify content and language learning difficulties, scaffold the learning process, as well as using communicative strategies that enhance communication, meaning-making, negotiation and understanding (Marsh, 2002).

Apart from these three intertwined domains, other domains have been highlighted as essential for a CLIL practitioner, being one of them **CLIL theoretical underpinnings** (Marsh, 2002; Mehisto et al., 2008; Pavesi et al., 2001; Pistorio, 2009). The theoretical underpinnings include Second Language Acquisition (SLA) theories and learning theories. In addition, it is widely acknowledged that CLIL teachers should develop **collaborative skills** (Lucietto, 2008; Pavesi et al., 2001; Pavón Vázquez & Ellison, 2013). This domain includes developing teamwork and coordination skills (Lucietto, 2008; Pavesi et al., 2001) between content and language teachers to establish common pedagogical goals (Pavón Vázquez & Ellison, 2013).

It has also been stated that CLIL teachers should develop their **reflective competence** in order to think about how they are doing and why they are doing in that way (Barranco Izquierdo et al., 2016) based on classroom research (Pavesi et al., 2001). CLIL teachers should also possess the ability to **manage the classroom** so as to identify learners' needs regarding content and language learning, as well as how to respond to them (Ball et al., 2015; Mehisto et al., 2008) and create supportive learning environments (Mehisto et al., 2008). In addition, CLIL practitioners

should acquire the **material development competence** (Cenoz, 2013) in order to adapt and exploit the materials according to the language and content goals, as well as selecting complementary materials (Marsh, 2002).

Finally, CLIL teachers should develop the ability to develop and implement **evaluation and assessment** mechanisms for CLIL purposes (Marsh, 2002). Assessment in CLIL presents a main characteristic that it is, at the same time, the source of a challenge: assessment needs to account for achievement in content and language, apart from learning skills (Mehisto et al., 2008). However, the difficulty arrays in the fact that language and content are integrated and, therefore, they need to be assessed together (Llinares, 2015). Assessment is an integral part of the curriculum and an essential element in daily teaching pedagogy (Nikula, Dafouz, Moore, & Smit, 2016) since it needs to encourage learning (Maldonado & Olivares, 2013). Nevertheless, assessment in CLIL it is not only reduced to teacher's assessment, but peer and self-assessment, since students need to become aware of how they have acquired content through a foreign language (Clegg, 2007). However, despite the relevance of assessment, it is also one of the weakest areas in CLIL methodology and, if not the most, one of the most challenging (Asikainen et al., 2010; Marsh, 2002).

As the description above shows, "teacher competences needed for CLIL are extensive and require considerable assimilation time for any teacher embarking on teaching in a CLIL programme" (Hillyard, 2011, p.6). However, these domains are necessary for good CLIL teaching and learning (Marsh, 2002). If the identified domains are compared with those of a general teacher and a foreign language teacher (Table 17) there is not much of a difference in terms of the ones identified. However, research and studies on CLIL teacher's education have identified less key competences and requisites than those studies focused on general and foreign language teachers.

In the case of inclusion competence, it seems that, despite not being directly mentioned, inclusion competence is somehow implicit within classroom management. The same could be true for self-reflection and learning to learn competences. That is, learning to learn appears to be partially included in the descriptions of self-reflection competence. Communicative competence is not mentioned. As in the case of foreign language teachers, it could be that it is presupposed that knowing the language makes you communicatively competent. Interestingly, those competences that are related to school organisation (research & innovation and leadership & school organisation) are not referred as a characteristic of CLIL teachers. This could explain why CLIL has not been analysed from the school level perspective.

Table 17. *Comparison of the knowledge and competences identified for general, foreign language and CLIL teachers.*

KNOWLEDGE		
GENERAL TEACHER	FOREIGN LANGUAGE TEACHER	CLIL TEACHER
Content Knowledge	Language Proficiency	Content and Language Knowledge
Pedagogical Content Knowledge	Pedagogical Content Knowledge	Pedagogical Content Knowledge
COMPETENCES		
GENERAL TEACHER	FOREIGN LANGUAGE TEACHER	CLIL TEACHER
Pedagogical	Pedagogical	Methodology
Assessment	Assessment	Assessment
Classroom Management	Classroom Management	Classroom Management
Inclusion	Inclusion	-
Digital	Digital	-
Materials	Materials	Materials
Self-Reflection	Self-Reflection	Self-reflection
Communicative	-	-
Research & Innovation	Research & Innovation	-
Learning to learn	Learning to learn	-
Collaboration	Collaboration	Collaboration
Leadership & Organisation	Leadership & Organisation	-

Source: Own Elaboration.

All in all, according to the reviewed studies, it appears that there is not much of a difference between the competences that a general teacher and a CLIL teacher should develop. However, it is not clear enough whether these are the key domains (Table 17) or these are the domains that research has focused the attention on.

4.1.3.3. Frameworks for CLIL Teacher Education

The variety and diversity of competences required for CLIL teachers, as well as the diversity of CLIL contexts has led to the design of some Frameworks for CLIL teacher education (Ball et al., 2015). In the recent years, there have been some attempts not only to identify CLIL teachers' competences, but also to establish CLIL teacher education frameworks that support the development and continuity of CLIL teacher training programmes for both initial and ongoing education.

These attempts are *The European Framework for CLIL Teacher Education* (Marsh, Mehisto, Wolff, & Frigols-Martín, 2010), *The CLIL teacher's competences Grid* (Bertaux, Coonan, Frigols-Martín, & Mehisto, 2009) and the *Competences of Teachers from Bilingual Schools* (Lorenzo, Trujillo, & Vez, 2011). All these attempts intend to be a baseline to design and develop rich training courses for CLIL teachers.

The European Framework for CLIL Teacher Education (Marsh et al., 2010) is the result of a European co-funded project carried out by the European Centre for Modern Languages (ECML). This project intended to develop a CLIL curriculum (CLIL-CU) based on the analysis of European CLIL teachers' education and training needs. This framework identifies eight target professional competences that should be developed during CLIL training: Personal reflection (commitment to their own cognitive, social and affective development); CLIL fundamentals (an understanding of the core features of CLIL and how they link to best practices in education); Content and Language awareness (the relationship and integration of content, language and cognitive development); methodology and assessment (methodological and assessment knowledge and skills); research and evaluation (developing a personal path of enquiry, reflection and evaluation); learning resources and environments (developing highly integrative, multi-layered, cognitively demanding and balanced learning materials); classroom management and CLIL management (skills to integrate content, language and learning skills). Again, if the definition of competence used in this PhD is applied, some of the domains included in the *European framework for teacher education* can be regarded as competences but others cannot.

The CLIL teacher's Competence Grid (Bertaux et al., 2010) was developed by the CLIL Cascade Network. This study was also funded by the EU and aimed to map the basic competences for CLIL teaching. This framework divides the competences in two blocks: 'underpinnings of CLIL' (relative to CLIL programme foundation) and 'Setting CLIL in motion' (relative to CLIL implementation). Each area of competence joins different competences and indicators of competence. However, it must be highlighted that, strictly speaking, not all the outlined areas of competence and competences can be regarded as competences if the definition of competence used in this PhD is applied.

As for the section 'underpinnings of CLIL', this grid identifies five areas of domain: program parameters, CLIL policy, target language competence for teaching CLIL, course development and partnership in supporting student learning. As regards 'setting CLIL in motion', eight areas of competence are established: integration, implementation, second language acquisition, interculturality, learning environment management, learner focus in the CLIL environment, learning skills focus in CLIL, learning assessment and evaluation in CLIL, lifelong learning modelling and innovative teaching and learning approaches. In both sections, each area of expertise contains the descriptive elements that contribute to the development of this area. Likewise, each domain includes its indicators of competence.

In terms of the *Competences of Teachers from Bilingual Schools Framework* (Lorenzo et al., 2011), it was developed in the Spanish context as a result of the training and research activity of its authors. This framework includes seven general competences that integrate sub-competences. The main competences identified are interpersonal competence, pedagogical competence, knowledge of the subjects and teaching methods, organisational competence, competence for the collaboration with workmates, competence for the collaboration with the environment, and, finally, reflection and professional development competence.

The comparison of the three aforementioned frameworks seems to indicate that there is an agreement around some competences: CLIL fundamentals, methodological and assessment competence, classroom management and CLIL management (Table 18). At the same time, these competences are some of the key teacher's competences identified by previous research (as revised in table 14): pedagogical, assessment, classroom management, inclusion, collaboration and leadership and school organisation competences. Interestingly, most of the competences proposed by Marsh et al. (2010) and their definition are aligned with key teacher's competences, as can be seen in table 18. Therefore, it seems that **there is not much of a difference between CLIL teachers' competences and those identified for teaching in general**. Apparently, thus, the difference between CLIL and non-CLIL teachers may be the specific knowledge rather than the key competences.

Other studies have focused on CLIL teacher education and the contents of this education. The study *CLIL across contexts: A scaffolding framework for CLIL teacher education* (Dafouz, Llinares, & Morton, 2009) aimed at developing new approaches to CLIL teacher training which promoted a better integration of both content and language learning at secondary level. This study identified eight essential areas for CLIL teacher education at secondary level: planning, learner's needs, multimodality, subject literacies, context and culture, cooperation and reflection, interaction and evaluation. This study refers to these areas as areas of knowledge instead of areas of competence.

Finally, the 4C's Framework, already presented in chapter 2, has been proposed as a framework to develop CLIL teacher education (Wiesemes, 2009). It is believed that this framework provides the sufficient theoretical grassroots to sustain practice. Thus, teacher education should provide training in communication, cognition, culture and content. However, while this framework may account for the integrative nature of CLIL, it may not provide the necessary theoretical underpinnings to sustain practice in terms of pedagogy, classroom management, collaboration or school organisation. Therefore, it may partially account for CLIL teacher education.

Table 18. *Alignment of CLIL teachers' competences frameworks and comparison with the general teachers' key competences.*

European Framework for CLIL Teacher Education (Marsh et al., 2010)	The CLIL Teacher's Competences Grid (Bertaux et al., 2009)	Competences of Teachers from Bilingual Schools (Lorenzo et al., 2011)	General Teacher's Key Competences (summary of table 14)
Personal reflection	-	Reflection and professional development	Self-reflection Learning to learn
CLIL fundamentals	Second language acquisition Learning skills in CLIL	Pedagogical competence ²⁰	Pedagogical Content knowledge
Content and language awareness	Target language competence	Content and language knowledge	Content and language knowledge
Methodology and assessment	Integration Interculturality Learner focus in the CLIL environment Learning assessment and evaluation in CLIL Innovative teaching and approaches	Methodological competence	Pedagogical Competence Assessment Competence
Research and evaluation	-	-	Research & Innovation
Learning resources and environments	-	-	Materials and digital competences
Classroom management	Learning environment Management	Management competence Interpersonal competence	Classroom Management and Inclusion Competences
CLIL management	Programme parameters CLIL policy Course development Partnership Implementation	Collaboration with the workmates and the environment	Collaboration Leadership & School Organisation Competences

Source: Own Elaboration.

However, to the best of our knowledge, these frameworks have been proposed, but no empirical evidence is available yet about CLIL teacher education programmes based on one of these frameworks or the effect of developing these teaching competences on students' learning. Therefore, more evidence in this field is needed. However, there is evidence that part of these frameworks have been used to develop specific training for VET CLIL teachers (Frígols-Martín, Marsh, & Naysmith, 2007). This programme was part of a European funded programme and

²⁰ This framework uses the label 'Pedagogical Competence' to refer to second language acquisition theories and learning theories.

aimed to develop the following domains: language competence, theory, methodology, learning environment, material development, interdisciplinary approaches and assessment.

Due to the prominence of a traditional approach, one of the major challenges that CLIL teacher's competence frameworks and CLIL teacher education programme have to tackle is CLIL's integrative nature, independently of the academic level of education (Marsh et al., 2010). To conclude, it has been widely stated that different disciplines demand different teacher's competences. However, the revision of previous literature shows that key teachers' competences are similar to those identified for foreign language teachers and for CLIL teachers. Therefore, it seems that there are some key teachers' competences that need to be developed independently of teachers' specialisation, educational level and educational approach. These key competences should be developed during initial teacher education. However, what may be different is the content of each competence depending on the teacher's specialisation. For instance, apparently, every teacher should develop methodological competence regardless of the discipline and the education level. Nevertheless, what it is going to be different is the knowledge on which the competence is grounded.

On the other hand, the description above reveals an extensive list of teacher's competences. To this list, the eight lifelong learning competences should be added. Therefore, it is quite difficult that every single teacher develops all competences to a high level. It is here where teacher's competence frameworks may play a key role in describing and developing different teacher's profiles. In addition, it may help to plan how the different competences interweave, as well as to prioritise the level of attainment for each competence during the teaching career. However, as already stated, these level should not be used as standards, but as an orientation for teacher education.

4.2. CLIL Teacher Training

4.2.1. Provision of CLIL Teacher Education

Even though it is accepted that teacher quality is crucial for students' learning, some analysis conducted at the European level have found a gap between teacher's needs and the available training (European Commission, 2012b). In general, teachers perceive that they need more professional development than they currently receive (Bokdam et al., 2014). Indeed, Marcelo (2011) found that in-service teachers believed they were not enough qualified for their job although they had actively participated in some forms of ongoing developmental training.

As for CLIL, the picture does not seem to be different, although it has been widely stated that **CLIL success depends on teacher education** (Cabezuelo Gutierrez & Fernández Fernández, 2014; Coyle et al., 2010). In fact, Cabezuelo Gutierrez and Fernández Fernández (2014) found that more than 60% of the participants enrolled in a CLIL training course were not satisfied with the training received, despite having been provided with knowledge about bilingual education.

Previous studies and research agendas have acknowledge **the need to develop quality CLIL teacher education** (Asikainen et al., 2010; Banegas, 2012b; Cenoz et al., 2014; Coyle, 2007; Coyle et al., 2010; Dalton-Puffer, 2011; Dalton-Puffer & Smit, 2013; Marsh, 2002; Mehisto, 2008; Pérez-Cañado, 2012, 2016a). In general, in CLIL provision, teachers tend to be specialists (content or a foreign language) or they have a double specialisation (Eurydice, 2006). At European level, most countries offer the possibility to specialise in another subject alongside a foreign language. However, Spain is one of the countries where foreign language teachers are qualified to teach only a foreign language (Eurydice, 2012, 2017a).

With regard to **teacher's requirements for CLIL provision**, in most countries, teachers do not need an additional qualification for CLIL teaching. Some countries require a B2 or C1 foreign language level, according to the Common European Framework of Reference for Languages (Eurydice, 2012). None of the specific requirements for CLIL provision refer directly to teaching principles and methodology (Eurydice, 2006). In general, there is a lack of guidelines to establish CLIL teacher qualification at national level (Eurydice, 2017a).

CLIL teacher education is generally provided during **pre- and in-service education**. Currently, initial teacher education range from courses and training modules within the pre-service curriculum to specialised qualifications, such as postgraduate studies or master's degree (Eurydice, 2006, 2017; Hillyard, 2011). In the case of Catalan Universities, it is common that some courses on CLIL provision are offered during the bachelors. However, the amount of courses and European credits (ECTS) vary considerably between universities. Moreover, some Catalan Universities offer some postgraduate or Master's degree on CLIL teacher education, but others do not (Grup de treball d'Anglès del Programa MIF, 2016). Nevertheless, due to an initiative promoted by the Educational Administration, Catalan Faculties of Education could create a parallel degree in which part of the curricular content was taught through an additional language (Escobar, 2017a).

Because of Higher Education autonomy to design the curriculums, CLIL provision at bachelor's level is inconsistent (Enever, 2014). Training possibilities tend to be limited and the main

features and duration vary considerably (Eurydice, 2006). Likewise, heterogeneity is also present in ongoing teacher education since it may be related to the type of CLIL provision offered. In-service CLIL training goes from workshops, networking and online courses to school-led initiatives (Ball et al., 2015; Gutiérrez-Almarza, Durán-Llavador, & Durán-Martínez, 2012; Hillyard, 2011). Additionally, websites with teaching resources have been created and some specialists have started to advise other practitioners (Eurydice, 2006). Some developmental strategies have consisted of some kind of teacher exchange or placement in schools from the target language speaking countries (San Isidro-Agrelo, 2009). However, Coonan (2011) warns that the length of CLIL teacher education courses has become shorter. Shortening teacher training can have negative implications on the teaching practice and, consequently, on students' learning. Therefore, shortening teacher education should be avoided by all means.

It is worth highlighting that **training modalities** have not received much attention for CLIL. According to school improvement research, teacher qualification tends to be more effective when it is school-based and linked to the school's project (Coronel, 2002; Murillo, 2003). Research evidence seems to indicate that CLIL training for in-service teachers tends to be in form of courses, workshops and seminars of different duration offered outside the school (Pena-Díaz & Porto-Requejo, 2008). Nevertheless, according to de Miguel (2006), training modalities should be aligned to the educational purposes. Training activities can be face-to-face, online or blended. The modalities used in these activities can be of different nature: lectures, workshops, external placements, practical lessons or tutorials. Previous studies on CLIL seem to indicate that a mix of theoretical training out of the school and practical application on the work context with experts' observation and feedback has a positive effect on in-service teachers' practices, beliefs and perceptions (Lo, 2017b; Turner, 2015).

The need of teacher qualification for CLIL is not new. Marsh (2002) already stated that it was necessary that universities and training institutes developed pre- and in-service teacher education courses. Some studies analysing teacher education or teachers' training needs have made some recommendations about **the contents of CLIL training programmes**. However, the absence of CLIL teacher education programmes has led to a lack of qualified teachers for CLIL (Eurydice, 2017a). Therefore, due to the huge training needs of CLIL teachers and the insufficient CLIL teacher education programmes, it is paramount to design programmes to this end.

According to Coyle et al. (2010), a good CLIL teacher education programme should be research-led, international and collaborative; conceptualise the integration of content and language; encompass content and language teachers at all levels of education; address the needs of

learners; provide sufficient language and content knowledge; develop teachers' capacity to design their own materials; the use of ICT for teaching and learning purposes and, finally, foster an inclusive approach to language use. On the other hand, Ball et al. (2015) emphasises the urgency for CLIL courses to focus on language competence and language pedagogical knowledge. In the same line, Salaberri-Ramiro (2010) considers CLIL training courses should focus on language skills, as well as cultural knowledge of the target language speaking countries. Initial teacher education in CLIL is a pre-requisite for consolidating this approach in mainstream education.

Likewise, Pavesi et al. (2001) has proposed that CLIL courses can integrate both foreign language and content teachers. The core elements of this course, according to this author, would be language awareness and second language acquisition, subject knowledge, classroom management and further professional development. Morton (2016) has identified four areas that all CLIL courses should have: language competence, metalinguistic knowledge, language awareness and instructional strategies. In addition, this author has proposed that CLIL teacher education should start from situated practice so that teachers can engage with the problems of integrating content and language. To these areas, Pavón Vázquez and Ellison (2013) include content and language teachers' coordination and developing collaborative work.

However, it is believed that CLIL teacher education should start at pre-service level (Rozeta, 2011). To this end, special recommendations have been made for **initial teacher education**. Truscott de Mejía (2016) stresses the need to develop reflexive CLIL practitioners, instead of technical experts. In order to achieve this, pre-service education should start unpacking teachers' practices and beliefs in order to develop the integration of curricular content and language learning (Banegas, 2015). In addition, these programmes should combine theory and practice to ensure successful delivery of CLIL lessons (Wiesemes, 2009). Likewise, McDougald (2015) states that initial teacher education curriculum needs to be aligned with CLIL teaching realities.

Durán-Martínez and Beltrán-Llervador's (2017, p.5-6) study found what the training priorities should be according to teachers' opinion:

- Improvement of teachers' foreign language competence and methodological issues.
- The need for the educational authorities to invest in the training required by these programmes. This training should be both linguistic and methodological.
- On-site training courses in the own school and to participate to similar courses abroad.

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- Equipping teachers with tools to help them design their own teaching materials.
- Importance of receiving intensive training in pronunciation.
- The need to share and exchange ideas and experiences with their colleagues and to see how they face the same or very similar challenges.
- Updating and making the most of ICT resources in their teaching.

In the same line, Escobar (2010) establishes that CLIL teacher education should include: the promotion of cyclical reflection about CLIL classroom practices; the collaboration between teachers of different profiles and the use of structures to empower this collaboration. Likewise, Cammarata and Tedick (2012) propose that teacher education for CLIL should enable teachers to reshape their identity; support teachers to implement the programme; and know where to find materials and how to adapt them. Finally, Pappa et al. (2017) consider that pre-service teacher education should cultivate collaboration, include language focus, promote pre-service teachers' autonomy and versatility, include a learning portfolio and provide a space to share and discuss experiences.

In the context of this study, Catalonia, the report *Formació Inicial de Mestres a Catalunya en relació a l'anglès: Estat de la qüestió i Propostes de Futur*²¹ (Grup de treball d'Anglès del Programa MIF, 2016, p. 13) describes the qualification infant and primary teachers should have for CLIL teaching. According to this report, CLIL teachers' qualification should be:

- A C1 level in the target language.
- Discursive competence in the academic genres characteristic of the content subject: terminology, genres, etc.
- Training in the content subject pedagogy.
- Training in the role of the additional language in the Catalan curriculum and about acquisition of additional languages in the school context.
- Training on the integration of content and language: planning, assessment, methodological strategies and resources.
- Training in classroom management: scaffolding, manage the communication, students' participation, etc.
- Training on ICT to encourage communication in the additional language.
- Training in collaboration between teachers of different areas and educational levels so as to plan, implement and evaluate the CLIL project.

²¹ Initial Teacher Education in Catalonia in terms of English: State-of-the-Art and Future Proposals.

Table 19 synthesises the characteristics of CLIL training programmes defined by previous studies. If the content proposed for CLIL teacher education is aligned with the competences identified for CLIL teachers (Table 20), in general, there is an agreement between the content of training and CLIL teachers’ competences. Nevertheless, the analysis shows that contents related to some competences are not mentioned at all. This is the case of research & innovation and leadership & school organisation competences. The fact that **leadership and school organisation are not considered as part of CLIL** teacher education could be explained by the lack of focus on school-wide CLIL implementation mentioned in chapter 3. However, it seems that there is a general perception that leadership competences are less important than mastering the content knowledge or managing the classroom (Freixa, 2017).

Table 19. *Main characteristics of CLIL training programmes.*

AIM	TARGET	CONTENT OF TRAINING	MODALITIES	TRAINING STRATEGIES
<ul style="list-style-type: none"> ·To support teachers to implement CLIL. ·To reshape teachers’ identity. 	<ul style="list-style-type: none"> ·Content and language teachers. ·Pre- and in-service teachers. 	<ul style="list-style-type: none"> ·Conceptualisation of integration. ·Language and content knowledge. ·Communicative competence. ·Methodology. ·Material development. ·ICT. ·Classroom management. ·Ongoing professional development. ·Collaboration and coordination. 	<ul style="list-style-type: none"> ·School-based. ·Theory-practice. 	<ul style="list-style-type: none"> ·Research-led, international and collaborative. ·Start from situated practice. ·Exchange of experiences. ·Stay abroad. ·Learning portfolio.

Source: Own Elaboration.

Interestingly, there are some competences that are just mentioned by one study. This is the case of assessment, classroom management, inclusion, materials development, communicative competence and self-reflection and learning to learn. Interestingly, there are **some contents that have attracted more attention in the recent years**. This is the case of pedagogical, digital and collaborative competence. All in all, the comparison between teacher’s competences and the contents for CLIL training show some lights and shadows. On the one hand, there is an agreement on the knowledge that should be provided, but, on the other hand, it is not that clear what teacher’s competences should be addressed in CLIL teacher education and how they should be addressed.

Table 20. *Comparison between CLIL teacher's competences and the contents proposed for CLIL teacher education.*

KNOWLEDGE	
COMPETENCES	REFERRED BY
Content & Language Knowledge	(Coyle et al., 2010; Durán-Martínez & Beltrán-Llevador, 2017; Morton, 2016; Pappa et al., 2017; Pavesi et al., 2001; Salaberri, 2009)
Pedagogical Content Knowledge	(Coyle et al., 2010; Grup de treball d'Anglès del Programa MIF, 2016; Pavesi et al., 2001;)
COMPETENCES	
GENERAL TEACHER	REFERRED BY
Pedagogical	(Durán-Martínez & Beltrán-Llevador, 2017; Grup de treball d'Anglès del Programa MIF, 2016; Morton, 2016)
Assessment	(Grup de treball d'Anglès del Programa MIF, 2016)
Classroom Management	(Pavesi et al., 2001)
Inclusion	(Coyle et al., 2010)
Digital	(Coyle et al., 2010; Grup de treball d'Anglès del Programa MIF, 2016)
Materials	(Cammarata & Tedick, 2012; Coyle et al., 2010; Durán-Martínez & Beltrán-Llevador, 2017)
Self-Reflection	(Escobar, 2010; Pappa et al., 2017; Truscott de Mejía, 2016)
Communicative	(Grup de treball d'Anglès del Programa MIF, 2016)
Research & Innovation	-
Learning to learn	(Pavesi et al., 2001)
Collaborative	(Coyle et al., 2010; Durán-Martínez & Beltrán-Llevador, 2017; Escobar, 2010; Grup de treball d'Anglès del Programa MIF, 2016; Pappa et al., 2017; Pavón Vázquez & Ellison, 2013)
Leadership & Organisation	-

Source: Own elaboration.

Previous studies have already noted that most available **CLIL training is focused on the development of teachers' language competence, neglecting CLIL methodology and the integration of content and language** (Koopman et al., 2014). In fact, in the case of Spain, official language schools have developed specific language courses aiming at allowing teachers to reach fluency in the target language and to obtain an official qualification (Salaberri, 2010). The excessive focus on language command may explain why it has been commonly accepted that target language mastery is the only specific requirement needed for CLIL provision. Nevertheless, Coonan (2011) complains about the little attention language has received in CLIL courses. Interestingly, some scholars believe that language and content teachers should receive the same CLIL training (Coyle et al., 2010; Pavesi et al., 2001).

Most of these recommendations are sometimes made without consulting participants' opinion. To the best of our knowledge, only a study has been identified in which CLIL practitioners were asked about the characteristics of the training they perceived would help them improve their teaching practice in CLIL settings. The findings indicate that **CLIL teachers would like to receive**

foreign language courses, both focused on language proficiency (the mastery of the language) and pedagogical language knowledge (knowledge about second language theories, learning theories, the curriculum...); study abroad; receive specific courses on CLIL methodology and start training at pre-service level (Di Martino & Di Sabato, 2012).

In the Spanish context, several official initiatives have been carried out to promote bilingual/multilingual education from the beginning of the millennium. Some of these initiatives have been accompanied by teacher education, as it is the case of the bilateral agreement between the Spanish Ministry and the British Council, the PALE programme (Support for foreign language teaching and learning programme) or PILC projects (Language innovation at school project), among others. However, these programmes did not present a coherent alignment between teachers' requirements, what should be required, and the type of training provided (Fernández-Fontecha, 2009).

In the context of this study, Catalonia, ongoing training was offered from the very beginning of CLIL implementation. The training modalities have changed along the years mainly due to the economic crisis (Lorenzo & Vives, 2013). During the first stages of CLIL implementation, mobility of prospective CLIL teachers was encouraged: teachers were released of their teaching duties so that they could do either a placement at school abroad or they could carry out some studies. Both options always entailed sharing the resources and materials developed with the CLIL teaching community. A second stage was characterised by a reduction of funding. Consequently, the efforts were put on developing in-service training courses in Catalonia. In addition, face-to-face courses were gradually **replaced by online or blended forms of training**. Currently, state funded face-to-face training is offered within the GEP project (Plurilingual Generation Project) (Resolució ENS/1363 de 7 de juny, 2017b). That is, those schools participating in this project receive some training during two years. This training covers the underpinnings of CLIL, CLIL teaching and learning and CLIL implementation at the school level. Alongside this face-to-face training, those teachers that want to be trained within the CLIL approach can participate in two online courses offered by the Catalan Department of Education²².

In short, "there is an urgent need for teacher education aimed at developing competent professionals [...] in today's world where teachers are increasingly being challenged to take responsibility for helping to initiate informed processes of change." (Truscott de Mejía, 2016, p.16). This implies strengthen the quality of pre-service training, as well as increasing the

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http://xtec.gencat.cat/ca/formacio/formaciogeneralprofessorat/llengues/accions_llengues_estrangeres_curriculars/aicle/formacio-individual/

frequency of workshops, courses and local events for both pre and in-service teachers (Enever, 2014). Overall, pre- and in-service teacher education for CLIL teaching and learning is still scarce (Fernández-Fontecha, 2009), at least in the context of the study. Moreover, this training tends to have a limited duration in time and a strong focus on language proficiency, neglecting other essential competences and knowledge for CLIL provision. To this, it has to be added that, in general, there is a lack of criteria that defines the requirements CLIL practitioners should fulfil (Langé, 2007). Altogether, this situation has led to a variety of CLIL contexts, not only in terms of teaching quality, but also regarding learning outcomes.

4.2.2. CLIL Teachers' Training Needs

The review of previous studies seems to suggest that there is a gap between the competences CLIL teachers should develop and the training offered. That is, the content of training does not always allow developing key teachers' competences. Consequently, the major challenge CLIL is facing today is the lack of teachers qualified for CLIL (Eurydice, 2017a). A body of CLIL research has focused on teachers' training needs and, more specifically, on CLIL teachers' perceived training needs.

Training needs are understood differently by some scholars. For some authors, *training need* is defined as "a measurable gap between two conditions: what currently is and what should be. This requires ascertaining what the circumstances are at a point in time, what is to be desired in the future, and a comparison of the two" (Altschuld & Watkins, 2014, p. 6). For other scholars, a *training need* is a complex, multidimensional and dynamic concept that can be analysed from diverse perspectives (Tejedor, 1990; Zabalza, 1988). According to this definition, there are different types of training need: prescriptive need, perceived need and prospective need (Benedito, Imbernón, & Félez, 2001). A **prescriptive need** is the result of the comparison between what the teacher has or knows and what the Educational Administration and the Institution demands. The difference between the real level and the demand is what is considered the training need. A **perceived need** is based on what the teachers observe, feel and express as a problem. This problem normally emerges in the daily teaching and practitioners are aware of this need and they know that it can be solved. A **prospective need** is a need that emerges during or after the training as a result of this same training. For the purpose of this doctoral dissertation, training need will be defined according to Tejedor, (1990) and Zabalza's (1988) perspective; that is, as complex, multidimensional and dynamic.

The analysis of CLIL teachers' training needs tends to be focused on in-service practitioners who may have not received specific CLIL education or the received training has been reduced to a

course of a limited duration (Eurydice, 2006). However, some studies have also focused on pre-service teachers training needs (Banegas, 2015; Barranco Izquierdo et al., 2016; Griffiths, 2012; Silver, 2008) and in-service teachers who are about to start the CLIL provision (Aiello, Di Martino, & Di Sabato, 2015; Diem Trang & Thanh Nga, 2015; Durán-Martínez, Beltrán-Llavador, & Martínez-Abad, 2016; Mehisto & Asser, 2007; Pena-Díaz & Porto-Requejo, 2008; Pena Díaz et al., 2005).

However, the identification of CLIL practitioners' training needs is subject to several personal variables: type of qualification (content, language or double specialisation), type or training received, teaching experience (pre-service, inexperienced in-service teacher, experienced in-service teachers), teaching context (primary, secondary, upper-secondary or higher education), among other factors. In addition, as it has been stated in chapter 2, it has been found that teachers tend to approach CLIL from two perspectives: from a language focus or from a content focus (Coyle, 2007). In fact, content qualified teachers tend to put emphasis on the content learning, neglecting and overlooking language, whereas the contrary occurs with language teachers (Skinnari & Bovellan, 2016). Thus, taking into account teachers' qualification is relevant since **CLIL may imply a reconceptualisation of their role as teachers and their beliefs and identity what may affect the identified needs** (Moate, 2011; Nikula et al., 2016; Pappa, Moate, Ruohotie-Lyhty, & Eteläpelto, 2017).

On the other hand, the type of previous training received may affect the reported training needs. Some CLIL practitioners have been selected because of their language proficiency, but they have not received any specific CLIL training (Diem Trang & Thanh Nga, 2015). In other cases, training may only focus on language or methodology, neglecting other relevant aspects. On the other hand, the experience as teachers may also have a major impact on the perceived training needs. As stated above, teachers go through a career life-cycle (Huberman, 1988) and, therefore, the training needs vary according to their teaching experience. In this line, it has been found that newly arrived and inexperienced teachers tend to focus on classroom management and it is not after some years of practice that their focus moves on students' learning (Darling-Hammond & Bransford, 2005; LePage, Darling-Hammond, & Akar, 2005). Indeed, Bovellan (2014) found that CLIL teacher experience and CLIL training affected teachers' beliefs about learning and language. Lo and Macaro (2015) concluded that teachers need time to get used to CLIL and, therefore, different teaching practices and needs can be identified depending on the CLIL experience. Similarly, Durán-Martínez et al. (2016) found that inexperienced and experienced CLIL teachers had different perceptions and tended to value different skills.

Therefore, when exploring CLIL teachers' training needs, it is important to consider the experience as a CLIL teacher since this experience may affect the perception of their own qualification for CLIL. Cammarata and Tedick (2012) described the **integration of content and language as a difficult pedagogical journey that involves many challenges**. This challenging journey can lead to reshaping the own professional identity (Moate, 2011b).

Finally, the educational context may also affect teachers' needs, understanding by educational context the educational system and the actual school context. For instance, AQU (2015) found that the educational stage, the school's ownership and the level of complexity determined some of the training needs. Interestingly, it seems that school management teams from innovative schools are less satisfied with the qualification of their teaching staff (Freixa, 2017).

In short, teachers' needs for CLIL teaching and learning may be different due to personal, contextual and institutional factors. For this reason, the revision of CLIL training needs identified by previous studies is going to be organised as follows: first, the theoretical papers identifying CLIL teachers' training needs are going to be reviewed. Thereafter, the findings of studies analysing pre-service teachers and inexperienced CLIL teachers' training needs will be summarised. Subsequently, the revision is going to be focused on experienced CLIL teachers. The training needs will not be classified in prescriptive, perceived and prospective because the studies do not always provide this information and they do not include enough evidences to infer this classification.

4.2.2.1. CLIL Training Needs in Theoretical Studies

The theoretical studies focusing on CLIL teacher education and CLIL teachers' training needs have identified nine different areas of training: language knowledge, language pedagogical knowledge, methodology, integration, materials development, assessment, classroom management, collaboration and interschool collaboration.

Regarding **language knowledge**, there is a general agreement that CLIL teachers lack target language competence (Coonan, 2011; Morton, 2016). Coonan (2011) states that, in general, the language component has received scarce attention in CLIL teacher education. She thinks that there is a need to improve language skills so that CLIL teachers can acquire the language competence required for their CLIL situation and be linguistically flexible. However, the main need appears not to be target language proficiency, but the **language pedagogical knowledge**. It is generally believed that teachers lack the pedagogical knowledge that would allow them to effectively integrate content and language (Morton, 2016; Truscott de Mejía, Peña, Arciniegas, & Montiel, 2012) and the knowledge needed to decompress or unpack how language is used in a

given field of knowledge (Martín del Pozo, 2017; Morton, 2016). In fact, this idea is consistent with the results summarised in chapter 2 where it was stated that teachers did not pay attention to language and, if they did, it was reduced to a focus on the specific terminology. In this line, Morton (2016) states that teachers' lack a proper conceptualisation of **integration** and what is necessary to bring content and language integration.

The theoretical studies identify considerable training needs in terms of **methodology**²³ (Coonan, 2011; Megías-Rosa, 2012; Morton, 2016; Piquer-Vives & Lorenzo-Galés, 2015). However, apparently, methodology receives attention after language skills have been upgraded (Martín del Pozo, 2017). The main training need identified for methodology is the incomplete mastery of instructional skills in terms of student-centred methods (Piquer-Vives & Lorenzo-Galés, 2015) and content and language integration (Morton, 2016). Teachers also need more knowledge on how to get learners to speak and overcome comprehension issues (Coonan, 2011).

The reviewed studies also agree that profound training needs can be found for material development and assessment. As regards **material development**, it is widely acknowledged that one of the major difficulties for CLIL teaching is the lack of suitable materials (Banegas, 2012a; Megías Rosa, 2012). Therefore, CLIL teachers need to be able to access and adapt already existing material, as well as develop their own material (Coonan, 2011). The lack of this skill and the absence of already created materials have caused that materials tend to compromise either language-supportive learning or content learning (Langé, 2007). On the other hand, several needs have been identified for the **assessment** domain. Assessment in CLIL settings is more complex since it needs to provide information about content and language. Therefore, there is an urgent need for teachers to know how to assess and how to balance content and language assessment (Coonan, 2011). In fact, assessment practice tends to be out of synchrony with the realities of learning and acquisition with the danger to only value what is measured and not the full spectrum (Asikainen et al., 2010).

There are two other areas where training needs have been identified: collaboration and interschool collaboration. **Collaboration** seems to be one of the main concerns and barriers for CLIL implementation. Since in some contexts CLIL implementation has outpaced teacher qualification, teachers have to rely on collaboration and coordination between their peers. However, collaboration has not always been encouraged or teachers have lacked the skills to work cooperatively (Banegas, 2012a; Morton, 2016; Nikula et al., 2016). Finally, as for **interschool collaboration**, teachers may have an incomplete mastery of the skills to network with

²³ As already noted in chapter 3, methodology is used in this doctoral thesis as a synonym of pedagogy.

other professionals and schools working on the CLIL field so as to share knowledge, experiences and challenges (Piquer-Vives, & Lorenzo-Galés, 2015).

4.2.2.2. Pre-service and Inexperienced CLIL Teachers' Training Needs

As stated above, previous studies have found that the experience as a CLIL teacher affects training needs' perceptions (Durán-Martínez et al., 2016; Lo & Macaro, 2015). For this reason, the empirical studies exploring pre-service and inexperienced CLIL teachers' training needs are reviewed together. These studies have identified a range of needs for: language knowledge, pedagogical language knowledge, methodology, integration, materials development, classroom management, content knowledge, diversity, collaboration and organisation. However, the domains where training needs appear to be considerable are pedagogical language knowledge, language knowledge and methodology.

As regards for **methodology**, the studies analysing pre-service teachers reported considerable methodological needs. Banegas (2015) found that teacher trainees tended to prepare lesson plans that were more teacher-centred than learner-centred and, despite focusing on content-obligatory language, just a few trainees planned language work. In the same line, Barranco Izquierdo et al. (2016) found that student teachers faced difficulties with the specific methodologies used in scientific disciplines. The studies exploring inexperienced CLIL teachers also report important training needs regarding methodology. Aiello et al. (2015) findings reveal that all inexperienced in-service CLIL teachers required serious methodological training to build awareness of foreign language issues. Di Martino and Di Sabato (2012) found that most of the practitioners about to start teaching in CLIL settings did not know much about CLIL methodology. Pena Díaz et al. (2005) concluded that prospective CLIL teachers needed considerable training about the methodological changes that CLIL implied. Likewise, Pena-Díaz and Porto-Requejo (2008) found that 40% of the participants did not have specific methodological knowledge for CLIL teaching. However, surprisingly, 30% of the participants considered they could acquire this knowledge through daily experience. Deim Trang and Thanh Nga (2015) also conclude that participants have insufficient knowledge about specific bilingual methodology and active and learner-centred methodologies. Finally, inexperienced CLIL teachers in Mehisto and Asser's (2007) study also have an incomplete mastery of CLIL methodology.

As for **language knowledge**, the studies report lack of foreign language proficiency or sufficient fluency to deliver the lessons in the target language (Aiello et al., 2017; Barranco Izquierdo et al., 2016; Diem Trang & Thanh Nga, 2015; Durán-Martínez et al., 2016; Pena-Díaz & Porto-Requejo, 2008; Pena Díaz et al., 2005). For instance, Pena-Díaz and Porto-Requejo (2008) found that only

16% of the inexperienced teachers had enough language mastery to teach CLIL lessons. In general, teachers believe that language knowledge is related to CLIL quality teaching. However, some of these studies also highlight that language competence is not sufficient for quality CLIL teaching and, thus, **pedagogical language knowledge** is also necessary. That is, inexperienced CLIL teachers may not have the sufficient knowledge about language and content integration (Banegas, 2015), the communicative approach and the specific types of discourse in each subject (Barranco-Izquierdo et al., 2016), as well as the specific skills to manage a CLIL lesson (Diem Trang & Thanh Nga, 2015). Silver (2008) found that, at the beginning of the training, student teachers considered irrelevant to focus on language in content subjects. During the training, the language focus was on form and it was not until the end that student teachers started to understand the connections between language and content.

The absence of methodological competence and language pedagogical knowledge constrains **integration** (Barranco Izquierdo et al., 2016; Diem Trang & Thanh Nga, 2015; Silver, 2008). In fact, Silver (2008) study found that the same pre-service teachers used the language completely differently when they were in an English lesson than when they were in a content lesson. For the latter, they did not pay attention to language because they did not believe that language was relevant for content learning. On the contrary, when CLIL teachers are language specialists, they perceive they need more **content knowledge** (Durán-Martínez et al., 2016).

Several studies have also reported the difficulties pre-service and inexperienced teachers face with **materials and resources**. Not only have they difficulties adapting and developing materials, but also accessing them and finding good resources (Di Martino & Di Sabato, 2012; Mehisto & Asser, 2007; Pena-Díaz & Porto-Requejo, 2008; Pena Díaz et al., 2005). However, one of the areas in which practitioners report deeper training needs is **diversity**. Inexperienced teachers worry about how to include low-achievers in CLIL settings in order not to leave them behind (Pena-Díaz & Porto-Requejo, 2008; Pena Díaz et al., 2005). In fact, those newly arrived teachers reported spending more time and effort on task delivery, scaffolding and classroom management when they had lower-achiever students (Diem Trang & Thanh Nga, 2015), while 73% of inexperienced teachers in Mehisto and Asser (2007) reported that low achievers should not attend CLIL provision. In the same line, Roiha's (2014) study revealed that the number of pupils with special needs in CLIL lessons was smaller. In addition, it was found that CLIL teachers tended to perceive differentiation in a narrow way, focusing only in differentiating tasks and assignments for lower achievers.

Pre-service and inexperienced teachers also reported some training needs regarding **classroom management**. Mehisto and Assret (2007) found that when teachers were new to the CLIL programme, it was challenging for them to cope with discipline in an additional language, as well as creating a good teaching and learning environment. Griffiths (2012) found that the area were pre-service foreign language teachers reported a major concern was classroom management, rating their difficulties as 4.4 out of 5.

Finally, there are other areas where more training is needed. Pena Díaz et al. (2005) study, which analysed inexperienced CLIL practitioners, showed that teachers perceived they had an incomplete mastery of **collaboration and organisation** for CLIL implementation. Practitioners especially worried about their lack of knowledge on how to start the programme and how to organise and coordinate themselves. For this reason, they believed that contact schools that had already implemented the project would be beneficial. On the other hand, the student teachers in Griffiths (2012) perceived they lacked content and **ICT knowledge**.

The identification and revision of inexperienced CLIL teachers' training needs should be used to design CLIL teacher education for pre-service teachers, as well as the introductory courses for in-service teachers that have not worked in a CLIL setting yet.

4.2.2.3. Training Needs of Experienced CLIL teachers

The studies included in this section are empirical studies that report the training needs of those teachers that have some experience teaching in CLIL settings. The training needs identified are relative to language knowledge, language pedagogical knowledge, methodology, integration, materials development, assessment, classroom management, content knowledge, ICT, diversity, collaboration, interschool collaboration and organisation. However, methodology is the domain where deeper training needs are identified followed by material development and language knowledge.

As for **methodology**, several studies seem to coincide that CLIL teachers lack methodological knowledge to implement CLIL in the classroom (Catelly, 2011; Durán-Martínez & Beltrán-Llavorador, 2017; McDougald, 2015; Moate, 2011; Pavón Vázquez & Rubio Alcalá, 2010; Pérez-Cañado, 2016; Pérez-Cañado, 2014; Salaberri-Ramiro, 2010). More specifically, the studies identify training needs relative to student-centred approaches. It seems that teachers face difficulties to move from teacher-centred to student-centred approaches (Enever, 2014; Truscott de Mejía, 2016). There is a general agreement that the challenge is not teaching in a foreign language, but to integrate both content and language (Cabezuelo Gutierrez & Fernández Fernández, 2014; Koopman et al., 2014; Wiesemes, 2009). For this reason, experienced teachers

tend to value more the methodological skills and the ability to integrate content and language than language proficiency (Durán-Martínez et al., 2016). In addition, Escobar-Urmeneta (2007) found that CLIL practitioners had an insufficient mastery of teaching strategies to retrieve knowledge and scaffold language demands. Enever (2014) also found that CLIL teachers lacked expertise in sequencing the tasks so that they could maximise foreign language learning.

Material development is the second area in which more training needs are identified. CLIL teachers become aware that the materials they have been using are no longer suitable for CLIL provision (Catelly, 2011; Durán-Martínez et al., 2016; Durán-Martínez & Beltrán-Llevador, 2017; McDougald, 2015; Moate, 2011). As a consequence, they have to find new resources, adapt the existing ones or develop their materials using their own creativity (Pappa et al., 2017). Likewise, Coonan (2007) and Czura et al. (2009) found that CLIL practitioners faced difficulties to access proper materials. However, other studies have found that the need is not accessing materials, but adapting and developing teaching materials so that these learning resources can meet the teaching goals at the same time that they are suitable for students (Coonan, 2007; McDougald, 2015; Moate, 2011; Pérez Cañado, 2014; Pérez-Cañado, 2016; Wiesemes, 2009). Additionally, some CLIL practitioners complained about the fact that when students were not taught through textbooks, they thought that they were not learning (Moate, 2011). Related to material development, some studies also highlighted the need of CLIL teachers to access **ICT resources** and use them for both teaching and learning purposes (Czura, 2009; Duran-Martínez & Beltrán-Llevador, 2017; Rubio, 2009; Salaberri, 2010). These results are in line with Bovellan's (2014) conclusions: training has a scarce impact on teachers' competence to design large-scale materials for CLIL.

The third area where more significant training needs were reported is **language knowledge**. Teachers are worried about their language proficiency (Cabezuelo Gutierrez & Fernández Fernández, 2014; Durán-Martínez & Beltrán-Llevador, 2017; Enever, 2014; Milla Lara & Casas Pedrosa, 2018; Moate, 2011; Truscott de Mejía, 2016). In general, CLIL practitioners believe that a higher language command would reduce their fear of losing class control (Enever, 2014) and establish a better relationship with students (Pappa et al., 2017). However, in some studies, practitioners did not worry about their language proficiency since they perceived it was good enough (Pérez-Cañado, 2016) or only some participants (35%) wanted to fine-tune the skills they had already developed (Cabezuelo Gutierrez & Fernández Fernández, 2014). In some cases, the training needs relative to foreign language knowledge had been replaced by **pedagogical language knowledge** concerns. This is the case of Pérez-Cañado (2016) study in which CLIL

teachers believed that they did not need higher language proficiency, but to make a better use of the language for teaching purposes. This idea is also sustained by Escobar (2007), Enever (2014) and Durán-Martínez and Beltrán-Llavedor (2017). For those studies that only analysed content teachers, pedagogical language knowledge was the area that worried content teachers the most (Koopman et al., 2014; Moate, 2011).

The analysed studies also identified training needs relative to **integration**. Several studies report that teachers participating in some kind of CLIL provision do not have a clear conceptualisation of integration (Catelly, 2011; McDougald, 2015). Escobar (2007) found that content teachers believed that the content-subject curriculum should be prioritised in CLIL practices, whereas the contrary occur with foreign language teachers. Likewise, Truscott de Mejía (2016) reported that even though teachers were aware of the need to integrate content and language for CLIL purposes, they did not know exactly how to do it.

The participants of this group of studies also report training needs relative to **classroom diversity**. The reported training needs for diversity vary from study to study. Salaberri (2010) found that teachers were concerned about their lack of skills to manage diversity in the classroom. Likewise, in Pladevall-Ballester's (2015) study, teachers expressed their worries for low-achievers and how to ensure they could follow the lessons. Similarly, Coonan (2007) concluded that CLIL teachers lacked the skills to handle different language competence levels, whereas in Moate (2011) teachers reported the challenge of having to establish criteria to decide what pupils could participate in CLIL lessons. Apart from classroom diversity needs, other needs were identified for **classroom management**. Cabezuelo Gutierrez and Fernández Fernández (2014) found that more than half of their participants did not know how to engage students in their lessons and encourage them to participate. In the same line, Moate (2011) found that CLIL teachers had difficulties to deal with different types of learning styles and scape from pre-established routines.

Interestingly, the two studies exploring the training needs of experienced CLIL foreign language teachers found that this group of teachers demanded more **content knowledge** (McDougald, 2015; Pladevall-Ballester, 2015). In McDougald's (2015) study, teachers did not feel prepared to teach a content subject and they would have liked to have received sound training on the subject they were teaching.

Some of the reported training needs did not refer to the individual capacities of the CLIL teacher, but to collective capacities. This is the case of **collaboration** and **interschool collaboration**. Even

though there is a general agreement that success of bilingual programmes partially relies on collaboration among all stakeholders (Salaberri, 2010), the truth is that CLIL teachers generally have the perception that they are implementing CLIL in isolation (Pladevall-Ballester, 2015) and they lack support from both their peers and the administration (Lorenzo & Piquer, 2013; McDougald, 2015). For this reason, CLIL teachers have defended the need of encouraging team teaching and collaboration within the school (Durán-Martínez & Beltrán-Llevador, 2017; Salaberri-Ramiro, 2010; Truscott de Mejía, 2016), as well as creating networks with other schools to support their practice (Cabezuelo Gutierrez & Fernández Fernández, 2014; Czura et al., 2009). Additionally, some of the identified training needs were relative to the school as an **organisation**. Experienced teachers stressed the importance of making CLIL a school project. Nevertheless, more information and support is needed to involve the school management team and all teaching staff (Durán-Martínez et al., 2016).

4.2.2.4. Summary training needs

The revision of the training needs identified by theoretical and empirical studies has revealed that CLIL practitioners report extensive training needs that can be related to the competences defined for CLIL teachers. As Lyster and Ballinger (2011) state, there is an urgent need to increase teachers' professional development so that CLIL can reach its full potential and the integration of learning can be maximised.

As Table 21 summarises, these training needs vary depending on the characteristics of teachers' profile and experience. However, it appears that there are three main domains that remain constant across groups (highlighted in grey): methodology, language and pedagogical language knowledge. Altschuld and Watkins (2014) indicate that one of the aims of needs analysis assessment is to prioritise training needs. The revision conducted seems to indicate that the domains that need to be prioritised are language and methodology. Nevertheless, other domains should be included depending on the specific characteristics of the teachers. Finally, this revision also raises the doubt if these training needs are specific of CLIL or CLIL makes them more salient.

Table 21. *Training needs reported for each group and type of study.*

	Theoretical studies	Pre-service & Inexperienced in-service CLIL teachers' studies	Experienced In-service CLIL teachers' studies
Language knowledge	·Language proficiency. ·Language skills.	·Language proficiency. ·Language skills.	·Language proficiency. ·Language skills.
Pedagogical Language Knowledge	·Subject-specific language. ·Language in context.	·Language for instruction. ·Subject-specific language. ·Communicative approach. ·Role of language.	·Language use for learning purposes.
Pedagogical Content Knowledge		·Content knowledge.	·Content knowledge.
Methodology	·Instructional skills. ·Student-centred methods. ·Focus on both content and language.	·Student-centred methods. ·Methodological implications of content & language integration.	·Methodological knowledge. ·Student-centred methods. ·Scaffolding. ·Planning to maximise language learning.
Integration	·Conceptualisation of integration.	·Integration of content and language.	·Conceptualisation of integration. ·Content and language integration.
Materials	·Adaptation and creation of materials.	·Adaptation and creation of materials.	·Access, adaptation and development of materials.
ICT			·Access and integration of ICT.
Assessment	·Assess both content and language. ·Alignment between external and internal evaluation.		
Classroom Management		·Creation of learning environments. ·Manage students' behaviour.	·Creation of learning environments.
Diversity		·Inclusion of individual differences.	·Inclusion of individual differences.
Collaboration	·Lack of group work.	·Collaboration	·Collaboration
Interschool Collaboration	·Networking.		·Networking.
Organisation		·CLIL Implementation	·CLIL as School project.

Source: Own elaboration.

It is worth highlighting that the areas identified as problematic are similar for both inexperienced and experienced CLIL teachers. However, the change is in the specific need, but, above all, where the focus is. While inexperienced teachers put the focus on language skills and language pedagogical knowledge, experienced teachers stress methodology followed by language skills and language pedagogical knowledge. Interestingly, those studies that only analyse content

teachers' perceptions highlight language pedagogical knowledge as a profound training need, whereas those studies focusing on language teachers only stress pedagogical content knowledge as a training need.

Besides these training needs, there were some concerns that were repeatedly reported in these studies. First of all, teachers concern about the work overload due to CLIL implementation since they need to dedicate part of their personal time to CLIL provision (Banegas, 2012b; Coonan, 2007; Florit Ballester, 2013; Gutiérrez, 2012; McDougald, 2015; Pena-Díaz & Porto-Requejo, 2008; Pladevall-Ballester, 2015). Secondly, in the studies focusing on the Catalan context, teachers complain about the isolation they experience when implementing CLIL. In general, teachers feel they are left on their own and they are the only ones in charge of CLIL provision in the school (Florit-Ballester, 2013; Lorenzo & Piquer, 2013; Pladevall-Ballester, 2015). Finally, a couple of studies highlight the absence of support from the Administration. In McDougal's (2015) study, teachers complain about not being consulted by the administration when CLIL was decided to be implemented. In the same line, Florit-Ballester (2013) found that CLIL teachers complain about the lack of a clear policy that support CLIL programmes and initiatives, as well as the absence of an external evaluation of the programme.

Overall, the revision and description of the identified CLIL training needs and concerns reveals a complex scenario. Lack of adequate teacher qualification for CLIL may have a negative impact on students' learning. According to Pena Díaz et al. (2005), these are problems characteristic of bilingual education: lack of resources, assessment and teacher education. However, if they are identified, some solutions are to be offered. In addition, these problems may affect teachers' professional identity and their perception of self-efficacy (Moate, 2011). To this, it must be added that the type of available training may not always be the one required or needed by CLIL teachers. Therefore, it is time to assess in depth CLIL teachers' training needs and develop CLIL teacher education programmes and courses that consider these needs.

4.2.3. Characteristics of Good Initial Teacher Education Programmes.

Designing and developing good teacher education programmes are not exempt of complexities. Caena (2014) identifies some of the challenges that are faced: the fragmentation of responsibilities for initial teacher education; related employment and job market issues; the selection of teacher candidates; diversity of regulations and priorities; organisational issues such as coordination, communication and consistency, as well as quality assurance.

For this reason, one field of educational research is focused on identifying the characteristics of successful initial teacher education programmes so as to describe their practices and their impact on teacher students. From these analysis, a group of factors have been highlighted as promoters of quality teacher education. Designing teacher education programmes based on these factors is paramount to ensure that teachers are sufficiently equipped to face the challenges of 21st Century Education.

Successful teacher education seems to rely on two main factors: programme design and the type of education provided. The main factors are summarised by Darling-Hammond and Bransford (2005) as follows:

- *Connection and coherence.* The programmes need to be particularly well integrated and be coherent: a set of big ideas are established and continuously revisited; there is a strong and common vision of what good teaching means; a set of standards are established.
- *Content organisation.* The design of teaching programmes is based on the content of teacher education, the learning process and the learning context.
- *The subject matters.* There is a conscious planning of what is learnt, but also how it is learnt.
- *The Learning Process.* Establishing key foundation ideas that serve as a basis for future learning; learning is scaffolded; learning about practice also takes place in practice.
- *Situated learning.* Teacher's education should be developed in ways that connect to the content and students that pre-service teachers will teach.

Other studies have also reported these five factors. As for **connection and coherence**, there is a general agreement that for teacher education to be successful there needs to be a shared understanding and definition of what good teaching is and the standards of the programme (Caena, 2014; Conway et al., 2009; Fenwick, Humphrey, Quinn, & Endicott, 2014). This is necessary so that all stakeholders involved in the teacher education programme work towards the same goal and are aware of the programme's key components (Caena, 2014a). Ideally, the establishment of these key components should foster the generalisation and maintenance of knowledge and competences acquired in a given course to another, especially when this transfer is the aim and guides planning, learning and assessment activities (Fenwick, Endicott, Quinn, & Humphrey, 2016; Keck et al., 2017; Rowe & Zegwaard, 2017). However, for this to happen, it is not only necessary that good teaching and standards are shared, but teacher trainers have the whole picture of the curriculum and there is an alignment between the different practices. That

is, if the programme is the addition of the different individual and not linked courses, it is difficult student teachers make the connections by themselves, but especially it is even more difficult that initial teacher education may have a big impact on teacher competences' development (Conway et al., 2009; Keck et al., 2017; Rowe & Zegwaard, 2017). Additionally, if teachers have not experienced how integration works, it is less probable that they can apply that knowledge to their teaching practices (Conner & Sliwka, 2014). Moreover, the establishment of programme standards should guide pre-service teachers' assessment across subjects (Gordon et al., 2009; Hammerness, 2005).

Relative to **content organisation**, Korthagen, Loughran and Russell (2006) state that initial teacher education programmes are successful when they allow to learn from experience and focus on how to build professional knowledge. Otherwise, teacher students may perceive they are not competent enough to face all the situations and contexts that they will encounter during the teaching profession (AQU, 2014; Rowe & Zegwaard, 2017). In addition, learning about teaching requires a shift from the curriculum to the learner. That is, student teachers need opportunities to understand what is involved in planning, teaching and reflecting on teaching.

Regarding **the subject matters**, pre-service teacher education should provide student teachers with a pedagogical repertoire that enable prospective teachers to face the teaching challenges (Conner & Sliwka, 2014; Conway et al., 2009; European Commission, 2012b; Gordon et al., 2009; Korthagen et al., 2006). Initial teacher education should develop pre-service pedagogical competence so that they can create learning situations that include learners with different needs, acquire learner-oriented teaching methods, e-learning resources and assessment techniques. Above all, teacher education should develop the awareness that there are multiple ways to reach the same outcome (European Commission, 2012). However, it is not only important what student teachers learn, but *how* they learnt it. That is, the likelihood prospective teachers employ all these strategies in their future teaching is higher if they have experienced them during their training (Conway et al., 2009). For this reason, there are several teaching approaches that have been recommended for teacher education (Darling-Hammond & Bransford, 2005; Gordon et al., 2009; Hammerness et al., 2005): microteaching, performance assessment and portfolios, case studies, autobiography, practitioner inquiry, project-based work, problem-based work.

However, previous studies have found that for pre-service teacher education to be effective it needs to unveil student teachers' beliefs about teaching and learning (Conway et al., 2009; Hammerness et al., 2005; Korthagen et al., 2006). Prospective teachers have developed

preconceptions about how the world and teaching works due to their previous experience as learners, what has been labelled as the *apprenticeship of observation* (Lortie, 1975). If student teachers are not aware of these preconceptions, they may fail to acquire the new concepts and information to develop their professional identity and representation of good teaching (Conway et al., 2009; Hammerness et al., 2005). Consequently, student teachers are just going to reproduce their experience as learners, but this time as teachers.

In all this process, teacher trainers' feedback and assessment is paramount. Therefore, there is an urgent need to revise and re-examine the assessment system teacher education programmes are based on (Conway et al., 2009). In addition, when the object of measurement is teacher competences, assessment should focus not only on measuring and judging, but also on the learning process (Villardón Gallego, 2006). To this end, portfolio assessment and self- and peer-assessment have proven to be successful towards this end (Gordon et al., 2009; Struyven, Blicck, Ronique, & Roeck, 2014). Nevertheless, the most suitable assessment practices may not be aligned with students' preferences (Van De Watering, Gijbels, Dochy, & Van Der Rijt, 2008).

Regarding the learning process, student teachers must learn *for* practice, but also *from* practice (Caena, 2014a). Therefore, teacher education should **combine and integrate both theory and practice** (Conway et al., 2009; Fenwick, Endicott, et al., 2016; Fenwick, Humphrey, et al., 2016; Korthagen et al., 2006). There are different models to integrate theory and practice. For some scholars, practice is subject to theory. For instance, Fenwick, Humphrey, et al. (2014) state that student teachers will only be able to integrate theory and practice if they have understood the theory. Indeed, he found that teacher students benefit from those tasks that allowed them to apply theory since students established connections between theory and practice. However, another way of integrating theory and practice is inferring theory from practice. According to Korthagen et al. (2006) the integration of knowledge and practice has three advantages. First of all, the kind of theory resulting encompasses student teachers' concerns, reflections and practical problems. Secondly, prospective teachers get use to integrating knowledge and practice what provides them a capacity for ongoing professional growth. Finally, this integration allows pre-service teachers to approach theory in a different way with their students. Some evidences in CLIL teacher education seem to indicate that the integration of theory and practice has a positive impact on teachers' beliefs and practices (Lo, 2017b; Turner, 2015).

Apart from this integration of theory and practice, it is also important that initial teacher education develops student teachers' **reflection and classroom-inquiry competences** (Caena, 2014; Conway et al., 2009; Fenwick, Endicott, et al., 2014; Hammerness, et al., 2005; Korthagen et

al., 2006). Hammerness et al. (2005) states that good teacher education programmes need to develop reflection and classroom-inquiry competences so that pre-service teachers can learn to take control of their own learning and to handle and understand the complexities of classroom teaching. “The more they learn about teaching and learning the more accurately they can reflect on what they are doing well and on what needs to be improved” (ibid, p.34). According to these scholars, there are four reasons why teaching is complex and, therefore, teachers need to develop this reflexive capacity: a) teaching is never a routine; b) teaching has multiple goals; c) teaching is done in relationship to very diverse groups of students; d) teaching requires multiple kinds of knowledge to be brought together in an integrated way.

Finally, with regard to **situated learning**, initial teacher education programmes have a greater impact if there is a strong relationship between university and school practice (Caena, 2014a; Conway et al., 2009; Korthagen et al., 2006), as well as student teachers learn of and in learning communities (Conway et al., 2009; Darling-Hammond & Bransford, 2005; Hammerness et al., 2005; Korthagen et al., 2006). This will allow teachers to see different visions and perceptions about education within experienced teachers and teacher educators, as well as reflect on education challenges (Caena, 2014a). According to Darling-Hammond and Bransford (2005), research findings suggest that learning about teaching occurs in community of learners where content is encountered in context.

Not only the design of initial of teacher education programmes should be based on the characteristic factors of good training programmes, but also all the teaching staff and educational members involved in these programmes should be aware of these factors and what they aim at. Otherwise, these principles could not be necessarily transferred to the classroom.

4.2.4. CLIL Training Programmes: Initial and Ongoing Development

Even though CLIL training programmes are not abundant and they may have a short duration in time (Eurydice, 2006), some CLIL courses and programmes have been developed taken into account either the recommendations stated above or the summarised training needs. Nonetheless, evidence of the impact of these teacher education programmes is still scarce. In some cases, it is not reported, in other cases partial results are provided, but in any case there is still evidence of the impact of these programmes on teacher’s practice in the classroom or student’s learning. Additionally, little is known about the impact of teaching and learning through an additional language at tertiary level on content acquisition (Borràs-Comes, Arnau, et al., 2017). CLIL pre-service teacher programmes will be first reported. Subsequently, in-service CLIL training will be revised.

4.2.4.1. Initial Teacher Education Programmes for CLIL

CLIL initial teacher education programmes vary from one another in terms of the characteristics of the trainees (content or language teachers, or both of them), subject (general CLIL training or specific for a subject), competence/s aimed to be developed, educational level (primary, secondary) and the training modality (workshop, seminar, course, postgraduate or master's programme...) (Table 22).

The **SciencePro programme** (Barranco Izquierdo et al., 2016) was developed in the Spanish context. It is a pre-service training programme for primary teachers which aims at improving student teachers' knowledge, abilities and attitudes for teaching Natural Science through a foreign language. Specifically, the programme aims to develop three domains:

1. Content knowledge of the Natural Science subject.
2. Pedagogical Foreign language knowledge oriented towards the development of scientific discourse in primary classrooms.
3. Methodologies to effectively put into practice this knowledge.

A task-based and communicative approach is used in this course, although there are also some seminars and lectures. The reflective practice takes place mainly in the primary school during the placement period. However, probably, due to the youth of this programme, no evidences are provided about its effectiveness.

Another teacher education programme for CLIL teaching was developed at the **University of Warwick** (Hunt, 2011). This programme was designed for pre- and in-service secondary school content teachers. The aim of the programme was to increase participants' competences. The course had three main content areas:

1. Introduction to CLIL
2. Planning and assessment
3. Adapting methodology for CLIL.

This training was online and, for this reasons, it was necessary to develop a web platform. The methodological approach used was learner-centred and based on the principles of cooperative learning. After the course, teacher students had a school placement. After the placements, participants reported they were better qualified for CLIL teaching, they were able to use a range of more interactive approaches and to integrate language learning in their subject. In addition, participants considered that their pupils were more motivated and students' attitudes and behaviour had improved. Nevertheless, a set of challenges were also identified: a) more time

was needed when planning lessons; b) maintaining good pace without leaving anyone behind; c) the need to possess secure content knowledge when teaching (Hunt, Neofitou, & Redford, 2009).

Some universities offer some optional courses or minors that allow pre-service teachers to be specialised in second language teaching. This is the case of **JULIET programme**²⁴(Jyväskylä University Language Innovation and Educational Theory Programme), which was established in 1995 as a minor (25 + 10 ECTS). The aim of this project is to qualify student teachers in foreign language pedagogy for primary education (Ruohotie-Lyhty & Moate, 2016). This programme is spread over a period of five years. There are different courses focused on foreign language pedagogy and language development, as well as international and intercultural issues of education. These courses and some courses from the general teacher education curriculum are taught in English.

No further evidence is available as regards specific CLIL teacher education programmes for initial teacher education, as far as a course or minor within the initial teacher education curriculum. In fact, this is the most common scenario in Catalan Higher Education Institutions (Grup de treball d'Anglès del Programa MIF, 2016). A novelty in Catalan Teacher Education degrees is that it is offered the possibility to course this degree in a foreign language, usually in English. Normally, this group of students follow the same general curriculum as those courses taught in Catalan or Spanish. The only difference is the language of teaching and learning. This new approach has been implemented in almost all State Catalan Universities, but there is a shortage of evidence on the impact of these programmes on pre-service teachers' competence development.

An exception is the Primary Education Degree in English (GEP-DUA) offered at the Autonomous University of Barcelona (UAB). In the special issue of *Temps d'Educació* Journal (Escobar, 2017b), it is explained this programme and some evidences are provided on the impact on teacher students' learning. The characteristics of this programme are: a) to access this programme, it is recommended that students have a B2 level; b) the subjects, learning outcomes and contents are the same as the primary education degree taught in Catalan; c) English is used in 64% to 81% of the ECTS; d) the teaching approach is CLIL; e) students can specialise in English teaching and CLIL during the last academic course. Nevertheless, some potential shortcomings are also identified: a) the absence of a standardised process to assign the teaching; b) university teachers' English proficiency is not enough, some pedagogical knowledge is necessary; c) university teachers' have an incomplete understanding of the CLIL approach, what has as a

²⁴ <https://www.jyu.fi/edupsy/fi/laitokset/okl/opiskelu/sivuaineet/juliet/en>

consequence that the language is just assessed in two courses (Escobar & Sánchez-Sola, 2017). As for the academic results, the evidences seem to indicate that student teachers from the GEP-DUA obtain better marks when they are taught in Catalan, but there are not significant differences between the marks these students obtain when they are taught in English in comparison to other groups taught in Catalan (Borràs-Comes, Arnau, et al., 2017). Nonetheless, these results have to be interpreted with caution since the students accessing the GEP-DUA are required to prove their English level. Additionally, GEP-DUA students may have some individual characteristics (academic performance, stays abroad, motivation, high expectations, socioeconomic status...) (Torràs-Vila & Evnitskaya, 2017) that could partially account for the results obtained.

Apart from the reviewed programmes, it is possible that other specific courses and minors are offered by other universities. However, the programmes reported are those that have been referred to in international scientific journals. Therefore, it could be that other programmes exist, but they have not been reported in well-regarded international journals.

Specific CLIL Master's programmes have been developed, but these programmes are not necessarily intended only to pre-service teachers. This is the case of the Master's Programme *Teacher-Education for Content and Language Integrated Learning* (TED for CLIL) developed at the Autonomous University of Barcelona (UAB) (Escobar, 2010). In this programme it is assumed that "in one year it is not possible to cover all the desirable content" (p. 196). Therefore, the programme has to cover the identified target competences for CLIL teachers: subject-specific pedagogical competence, pedagogical-communicative competence, inter-area collaboration skills and professional skills. A case study, based on the learning process of a student, shows that the cycles of collaborative teaching and shared reflection have a positive impact on the teacher student's learning and also helps her to understand and acquire basic concepts of second language acquisition (Escobar, 2013).

In the same line, a Master's programme developed at the *Autonomous University of Madrid* (UAM) has proven to have a positive impact on the teaching of the foreign language (Halbach, 2014). The analysis shows that the teacher students' planning includes a reflection on the possible linguistic difficulties the learners may face, as well as the proposed activities increase learner-centredness. However, more scaffolding of knowledge is needed. A case study from a student attending this programme with 15 years of experience teaching English in primary school provides more evidence on the success of this programme (Halbach, 2016). The study shows that the final project allows the teacher student to reflect on her own practice and the

impact it has on her pupils, as well as to apply the theoretical knowledge to her teaching. Nevertheless, the findings also suggest that not all Master's contents have been acquired up to the same extent.

4.2.4.2. In-Service Teacher Education Programmes for CLIL

Several **CLIL in-service programmes** have been developed. This is the case of the CLILCOM programme, Leonardo-funded (2004-2006), which aimed to address the learning needs of teachers and trainers in vocational education (VET). It was a virtual learning environment. CLILCOM free platform asked a set of questions in relation to community, communication, culture and cognition (4C's Framework) from here it was developed an *eFolio* providing an objective feedback on user's readiness to achieve successful CLIL teaching and the areas where more training was needed (Frígols-Martín et al., 2007).

There are some evidences of **school-based CLIL training**. An example is Lucietto's (2008) *tridimensional model*. This model was intended for in-service content teachers and aimed to develop organisational (team-teaching), methodological (learner-centred approach, task-based learning, cooperative learning and assessment) and institutional areas (CLIL as a school project). The model had an external consultant and had four consultancy stages:

1. First stage (early spring). This first visit illustrated CLIL principles, organisational issues were discussed and the team-teaching (content and foreign language teacher) was identified.
2. Second stage (September-January). The team-teaching started developing professional dialogue, learning the CLIL approach and making choices about the organisation of the content.
3. Third stage (February-May). The teaching modules were implemented. Due to Foreign language competence, the foreign language teacher was the one in charge to implement it in the class.
4. Fourth stage. The Teachers' Team decided how to evaluate the impact of the modules.

The results showed that, in general, students' achievement in content learning was successful and most children progressed in the foreign language. The rest of the stakeholders were generally satisfied and supportive.

Other in-service training programmes are divided in two parts. The first part is theory-based and normally done outside the school. The second part is implementing CLIL in the classroom followed with some monitoring and observation of the trainer. This is the case of the training

reported in Lo's (2017) study. In this particularly case, the training was a 6-month programme that combined two 3-hours training workshops with on-site support and feedback to teachers. The impact of this training modality is inconclusive: while some teachers benefit from this training since their beliefs changed and their language awareness increased, the beliefs of other practitioners remained unchanged or just were modified for some aspects. Apparently, these different results could be partially explained by the school's context, teachers' own learning and teaching experience, as well as teachers' epistemological beliefs. This scholar concludes her study stating that:

Effective teacher education may require **more tailor-made programmes** for teachers in different school contexts, at different stages of their career, teaching different disciplines and with different personal aspirations or experiences. This implies a more school-based approach to CLIL teacher education (Lo, 2017, p.13).

Some pre-service and in-service courses have focused on **pedagogical language knowledge** due to the training needs identified in this area. Generally these programmes have been based on the Framework Systemic Functional Linguistics (Schulze, 2016; Whittaker & Acevedo, 2016). In general, it has been found that specific training on the types and uses of the different genres and registers increases teachers' awareness of their presence in the content subject they teach.

The revision of these teacher education programmes (Table 22) sheds some light on the current offer of CLIL training. First, there is a general **tendency to focus on language**. Interestingly, this focus on language is not on language proficiency, but on pedagogical language knowledge and language awareness. Second, regarding pre-service training programmes, the focus seems to be on **pedagogical content knowledge and methodology**. The training tends to be face-to-face and offers some sort of school placement. Third, **no differences can be identified depending on for whom the training is**: content or language teachers. Finally, in-service training programmes have a strong focus on **collaboration and school organisation**. Apparently, the training offers some sort of on-site support.

The characteristics of these training programmes somehow explain some of the training needs identified. Almost all these programmes partially focus on some of the competences identified for CLIL teachers. However, the truth is that the content of training do not cover all the domains a CLIL teacher should master. In addition, the proposed training does not always consider the background of the participants. Finally, the identified training needs are extensive and, in some cases considerable, but it does not seem that the training programmes are consciously paying attention to them.

Table 22. Summary of the teacher education programmes for CLIL teaching.

Programme	Target	Content or language teachers	Content of training	Modality
Science Pro Programme (Barranco Izquierdo et al., 2016)	Pre-service Primary Teachers	Not specified	Content knowledge, pedagogical language knowledge, Methodology	Seminars, lectures and on-site
CLIL teaching at University of Warwick (Hunt, 2011)	Pre- & in-service secondary teachers	Content teachers	CLIL underpinnings, planning, assessment and methodology	Online School Placement
JULIET (Ruohotie-Lyhty & Moate, 2016)	Pre-service teacher education	Language teachers	Language pedagogy and language development	Face-to-face School placement
GEP-DUA (Escobar, 2017a)	Pre-service teacher education	Content and language teachers	General curriculum of teacher education, specialisation in language and CLIL teaching	Face-to-face
TED for CLIL (Escobar, 2010)	Master programme for pre- and in-service teachers	Content and language teachers	Subject-specific content knowledge, pedagogical-communicative competence, inter-area collaboration, professional aims	Blended
UAM's Master (Halbach, 2014)	Master programme for pre- and in-service teachers	Not specified	Not specified	Not specified
CLILCOM (Frígols-Martín et al., 2007)	In-service VET teachers	Not specified	Community, communication, culture and cognition	Online
Tridimensional model (Lucietto, 2008)	In-service	Both	Collaboration, methodology and organisation	School-based
Lo (2017)	In-service	Content	Language awareness	Theory-based school placement support

Source: Own Elaboration

Chapter 4. CLIL Teacher Education

This section has focused on the available CLIL teacher education and the identified training needs for CLIL provision. Even though it has been stated that teachers play a massive role on students' achievement (Hattie, 2003) and, therefore, teacher education is paramount (European Commission, 2013a), it seems this discourse has not permeated in the CLIL field yet.

CLIL teacher education has been limited to the development of the foreign language knowledge and methodological competence. However, the theoretical revision indicates that CLIL teachers' competences are more extensive. Consequently, CLIL teachers perceive that they have considerable training needs, especially for language and methodology. This fact seems to indicate that the current training is not meeting the needs of teachers or it does not take into account the characteristics of good training programmes (Darling-Hammond & Bransford, 2005). However, CLIL provision needs to consider the characteristics and the background of trainees because the revision of the literature suggest that contextual factors and personal variables may affect the identified training needs.

Finally, it seems that CLIL teacher education is left to the fortune of previous training. However, it may not be sufficient. In addition, it is necessary to start developing CLIL teacher's competences from pre-service education since, as advocated in the previous section, they are at the core of every good teacher. "Future teachers can play a significant role in curriculum planning, participant perspectives and classroom practices that enhance a content and language integrated approach to learning" (de Graaff, 2016, p.xvi), but they need to be qualified for that.

METHODOLOGY

Chapter 5. Methodology

This chapter synthesises the methodological decisions and processes carried out to develop this doctoral dissertation. First, the study is situated within a paradigm and a methodological approach. Second, the objectives and hypotheses are presented. Then, it is briefly presented the methodological design of this research which will be explained in more detail per each study indicating the participants and their selection, the data collection instruments (their elaboration, validation and use) and the analysis of the data collected. In short, this chapter intends to illustrate and justify the processes followed to obtain the results presented in chapters 6 and 7.

5.1. Research Paradigm and Methodological Approach

5.1.1. Research Paradigm

Research is framed within a paradigm. A **paradigm** is a way of thinking and a group of research guidelines that the members of a given research community share and use to develop their studies (Schulman, 1989, p.11). According to Guba and Lincoln (1994, p.105), a paradigm is “the basic beliefs system or worldview that guides the investigator, not only in choices of method but in ontologically and epistemologically fundamental ways.” Consequently, a paradigm establishes three different analysis dimensions which are interconnected and necessary:

- The **ontological questions**: what is the researcher view and understanding of the reality?
- The **epistemological questions**: what is the relationship between the knower and what can be known?
- The **methodological questions**: how can the researcher obtain the scientific knowledge from the reality?

Therefore, a paradigm is characterised by: a) a group of shared and recognised findings; b) the paradigms offer questions and solutions; c) the paradigm is the group of beliefs and values recognised by a community; d) the paradigm includes a group of common techniques and procedures (Latorre, del Rincón, & Arnal, 1996; Santamaría, 2013).

There is some discrepancy among the scientific community on the number and types of paradigms (Valles, 1999). For instance, while some scholars believe that there are three main paradigms (Bisquerra, 2004; Latorre et al., 1996), others identify four paradigms (Guba & Lincoln, 1985). For the purpose of this thesis, it will be followed the three paradigms classification despite the four paradigms will be revised (Figure 11). The three main paradigms

for educational research are (Bisquerra, 2004; Latorre et al., 1996; Santamaría, 2013; Valles, 1999):

- Positivist.
- Critical theory, which includes different schools of thought, such as hermeneutic and phenomenology, among others.
- Constructivism.

Positivist paradigm is based on positivism logic of natural Sciences; that is, reality can only be known through experience. Consequently, knowledge will only be valid if it is obtained through experience. This paradigm expresses propositional knowledge, with rules, maxims or prescriptive principles (Bolívar, 2002). This paradigm is characterised by (Kuhn, 1987; Latorre et al., 1996; Popper, 1979; Santamaría, 2013; Valles, 1999):

- The real world exists out of the researcher. That is, reality is objective and independent.
- A distance between the subject and the object.
- The aim is to identify cause and effect relationships and regularities in order to know and control the reality.
- Designing general and universal laws that allow to comprehend and explain the reality.
- The approach used to understand the reality is hypothetical-deductive.
- Three quality criteria: validity, reliability and objectivity.

However, there are some discrepancies on how knowledge is built. Some scholars believe that knowledge construction is based on past scientific achievements recognised by a community and, consequently this knowledge has to be validated (Kuhn, 1988). On the contrary, other scholars, based on the idea that the same facts can be explained using different theories, believe that hypotheses should be rejected instead of validated (Popper, 1979). The positivist paradigm has been the dominant paradigm along history and it has been transferred from natural sciences to social sciences. Nevertheless, the traditional positivist paradigm (also called the 'received view) has been **widely criticised**, being some of the reasons: a) context stripping; b) exclusion of meaning and purpose; c) disjunction between theories and context; and d) no applicability of general data to individual cases (Guba & Lincoln, 1994). These critiques had as a result the appearance of new paradigms: the critical theory and constructivism. Additionally, new revisions of the positivist approach were proposed.

One of these revisions was the **post-positivist paradigm** (Guba & Lincoln, 1985). Note that post-positivist paradigm has been regarded as a fourth paradigm. However, it can also be considered

a revision and a response to some of the limitations of the positivist paradigm (Guba & Lincoln, 1994; Valles, 1999). Post-positivist is characterised by:

- A critical realism. That is, reality exists outside the researcher, but this reality is imperfectly apprehendable.
- Dualism is abandoned, but objectivity is maintained.
- Inquiry is done in more natural settings, situational information is collected, as well as there is an increase of qualitative techniques.
- The results are considered probable rather than true.
- The aim is to explain the studied object, as well as to generate and accumulate knowledge through the use of reliable and valid methods and analysis procedures.

<i>Item</i>	<i>Positivism</i>	<i>Postpositivism</i>	<i>Critical Theory et al.</i>	<i>Constructivism</i>
Ontology	naive realism— “real” reality but apprehendable	critical realism— “real” reality but only imperfectly and probabilistically apprehendable	historical realism— virtual reality shaped by social, political, cultural, economic, ethnic, and gender values; crystallized over time	relativism—local and specific constructed realities
Epistemology	dualist/objectivist; findings true	modified dualist/ objectivist; critical tradition/community; findings probably true	transactional/ subjectivist; value- mediated findings	transactional/ subjectivist; created findings
Methodology	experimental/ manipulative; verification of hypotheses; chiefly quantitative methods	modified experi- mental/manipulative; critical multiplism; falsification of hypotheses; may include qualitative methods	dialogic/dialectical	hermeneutical/dialectical

Figure 11. Characteristics of each paradigm in terms of ontology, epistemology and methodology. Source: Guba & Lincoln (1994, p. 109).

The **Critical Theory paradigm** aims to comprehend the reality. As already noted, this wide paradigm includes different schools of thought (Santamaría, 2013). This paradigm is characterised by (Sandín Esteban, 2000):

- Research processes are dynamic and symbolic: social construction.
- The focus of research is human actions and their causes.
- Generalisation is not the aim.

- Objectivity is achieved through accessing the subjective symbolism that the action has on the main characters.
- Theory is built from the data.

Finally, the **constructivism paradigm** defends a fairer system in which it is necessary to be conscious of the role of ideology. This approach is characterised by:

- The reality is dynamic and evolutionary. The subjects are the agents of change.
- Theory and practice are intertwined.
- The object of research is to improve practice.
- The participants become researchers and the researchers participate in the action.

After revising the three main paradigms used in educational research, the **post-positivist paradigm**, understood as a revision and improvement of the positivist paradigm, is adopted to study the main aim of this research which is **to identify the didactic-pedagogical and organisational training needs of teachers from Catalan Primary schools relative to CLIL implementation and the school's organisational conditions that favour this implementation.**

5.2.2. Methodological design

As stated in the previous section, the research paradigm determines three dimensions: ontological, epistemological and methodological. With regard to methodological dimension, the post-positivist paradigm is characterised by a modified experimental/manipulative approach, the falsification of hypotheses, the use of more natural settings, collecting more situational information and the inclusion of qualitative methodology (Guba & Lincoln, 1994; Valles, 1999).

The **methodological design** “structures the organisation of the research and it is a general scheme that indicates what the researcher will do, how the aims will be attained and how the problem stated will be addressed.” (Latorre et al., 1996, p. 96). For the purpose of this doctoral thesis a **mixed methodological approach** was used to conduct this study. In other words, quantitative and qualitative methods were applied to collect and analyse the data because both types of data, quantitative and qualitative, allowed a higher comprehension of the aim of this study (Hernández-Sampieri et al., 2006). The main reason why it was decided to use a mixed methodology approach was because this approach allowed to analyse the frequency and scale of training needs and organisational conditions (quantitative methodology), as well as to comprehend these needs and conditions (qualitative methodology). Likewise, this methodological approach enabled to triangulate quantitative and qualitative data, as well as data coming from different sources (instruments, participants, etc.) (Valles, 1999).

Namely, two mixed research designs were used in this research: design by phases and dominant design (Hernández-Sampieri et al., 2006). These two designs were used with a different purpose. **Design by phases**, which consists in applying a quantitative and qualitative design in sequence, was used to design qualitative instruments. As it will be explained in the description of each instrument, qualitative instruments (mainly semi-structured interviews) were always designed and applied after administering a close-ended questionnaire. In this way, quantitative data was used to design the questions of the semi-structured interviews aiming to comprehend, assess and triangulate the results obtained. However, note that both quantitative and qualitative data obtained in previous stages were also used to design subsequent data collection instruments for triangulation purposes. Therefore, a continuous feedback process between quantitative and qualitative methods was used (Galeano, 2004).

The methodological approach also followed a **dominant design**. The quantitative approach prevailed over the qualitative one. An example of this dominance is the analysis of qualitative data, which will be detailed in the section “data analysis” of each study. The quantitative approach is the dominant one because qualitative data was categorised (Bolívar, 2002) and it was subject to quantitative data. Even though initially an inductive process was used to create the meaning categories following the constant comparison model (Glaser & Strauss, 1967), at the end, these categories were matched with the theoretical framework with the ultimate aim to calculate its frequency and relationship.

The design of the study will be specified in the following sections, as well as the processes followed from the design of the data collection instruments to the data analysis.

5.2. Objectives and Hypotheses

As has already been stated, the *general aim* of this doctoral this is **to identify the didactic-pedagogical and organisational training needs of teachers from Catalan Primary schools relative to CLIL implementation and the school’s organisational conditions that favour this implementation.**

This general objective is specified with the following *specific objectives* (SO):

- To explore Catalan teachers and school management teams’ perceived pedagogical and organisational training needs.
- To know the competences and training requisites of CLIL teachers and school management teams.

Chapter 5. Methodology

- To identify the organisational conditions of primary schools that favour the implementation and sustainability of CLIL projects.
- To analyse the concurrence between teachers, school management teams, inspectors, CLIL coordinators from the Education Department and CLIL experts' perceptions.
- To design, implement and evaluate an initial CLIL teacher education proposal for primary teachers from the identified competences and training requisites.

The objectives were specified in research questions that, for this thesis, were formulated as hypotheses. The following hypotheses (H) were established based on the literature review and the research objectives:

H1: CLIL teachers' profile varies depending on CLIL conceptualisation and the context.

H2: Teachers and school management teams perceive that they do not have enough pedagogical CLIL training to confront the demands of this approach.

H3: Teachers and School management teams believe that they do not have enough organisational training to implement CLIL projects.

H4: Language knowledge, content knowledge and methodological competence are considered essential requisites for CLIL teachers and, consequently, training has to address these requisites.

H5: Leadership is a key competence of school management teams.

H6: The most effective training modality is that one that addresses teachers' training needs depending on the characteristics of the context.

H7: The reason why primary schools decide to start a CLIL project and how CLIL is conceptualised determine how CLIL is implemented.

H8: CLIL implementation and sustainability requires some organisational conditions being teacher collaboration one of the most prominent and the shortage of teachers qualified for CLIL its main barrier.

H9: Teachers and school management teams concur in the key competences and knowledge for CLIL, but their perceptions in terms of current training needs vary.

H10: The design and the implementation of a competence-based training proposal for CLIL teaching and learning and CLIL implementation have a positive impact on the development of student teachers' CLIL competences.

Table 23. *Alignment between the general objective, the specific objectives and the hypotheses (duplicate of table 1).*

General objective: To identify the didactic-pedagogical and organisational training needs of teachers from Catalan Primary schools relative to CLIL implementation and the school's organisational conditions that favour this implementation.			
Block	Cross-curricular objective	Specific Objectives	Hypotheses
Non-experimental studies	SO4: To analyse the concurrence between teachers and school management teams' perceptions with the inspectors, CLIL coordinators from the Education Department and CLIL experts' opinions.	SO1: To explore Catalan teachers and school management teams' perceived pedagogical and organisational training needs.	H1: CLIL teachers' profile varies depending on CLIL conceptualisation and the context.
			H2: Teachers and school management teams perceive that they do not have enough pedagogical CLIL training to confront the demands of this approach.
			H3: Teachers and school management teams believe that they do not have enough organisational training to implement CLIL projects.
		H9: Teachers and school management teams concur in the key competences and knowledge for CLIL, but their perceptions in terms of current training needs vary.	SO2: To know the competences and training requisites of CLIL teachers and school management teams.	H4: Language knowledge, content knowledge and methodological competence are considered essential requisites for CLIL teachers and, consequently, training has to address these requisites.
	H5: Leadership is a key competence of school management teams for CLIL implementation.		
			H6: The most effective training modality for CLIL is that one that addresses teachers' training needs depending on the characteristics of the context.
			H7: The reason why primary schools decide to start a CLIL project and how CLIL is conceptualised determine how CLIL is implemented.
			SO3: To identify the organisational conditions of primary schools which favour the implementation and sustainability of CLIL projects.	H8: CLIL implementation and sustainability requires some organisational conditions being teacher collaboration one of the most prominent and the shortage of qualified teachers for CLIL, its main barrier.

Quasi- Experimental Study		SO5: To design, implement and evaluate an initial CLIL teacher education proposal for primary teachers from the competences and training requisites identified.	H10: The design and the implementation of a competence-based training proposal for CLIL teaching and learning and CLIL implementation have a positive impact on the development of student teachers' CLIL competences.
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Table 23 shows the relationship between the general objective, the specific objectives and the hypotheses. It is worth noting that specific objective 4 is transversal and, therefore, it will be answered through the comparison of the results from the different specific objectives, except specific objective 5.

In the following section, the methodological design used to address the objectives and hypotheses will be presented.

5.3. Methodological Design

The **research plan** to provide an answer to the established objectives and hypotheses will be detailed now. This explanations will be organised around five studies. The reason why this organisation is used is because this PhD was initially planned to be by compendium of articles. Therefore, each study would be materialised in, at least, one research paper. However, the lag between the needed time to research and the one to go through the editorial process made difficult that this thesis could be presented by compendium of articles during the 3-year time that the regulations of the doctoral programme established. Consequently, since this research was designed to be done by compendium of articles, the description of the process followed will be done following the five studies initially planned (Figure 12). First, the objective, the participants and the methodology used will be presented so as to offer a general overview of the research process. Second, the methodological design of each study will be presented in detail.

The doctoral thesis “School-based conditions and teacher education for CLIL implementation” had its starting point in the Master’s thesis which led to **study 1**. The aim of this first study was to identify the training needs of pre-service primary and secondary foreign language teachers. Training needs were assessed through a close-ended questionnaire and a semi-structured interview. Pre-service teachers’ perceptions were compared with those of teacher trainers, inspectors and CLIL coordinators from the Catalan Education Department, who were interviewed.

School-based Conditions and Teacher Education for CLIL Implementation

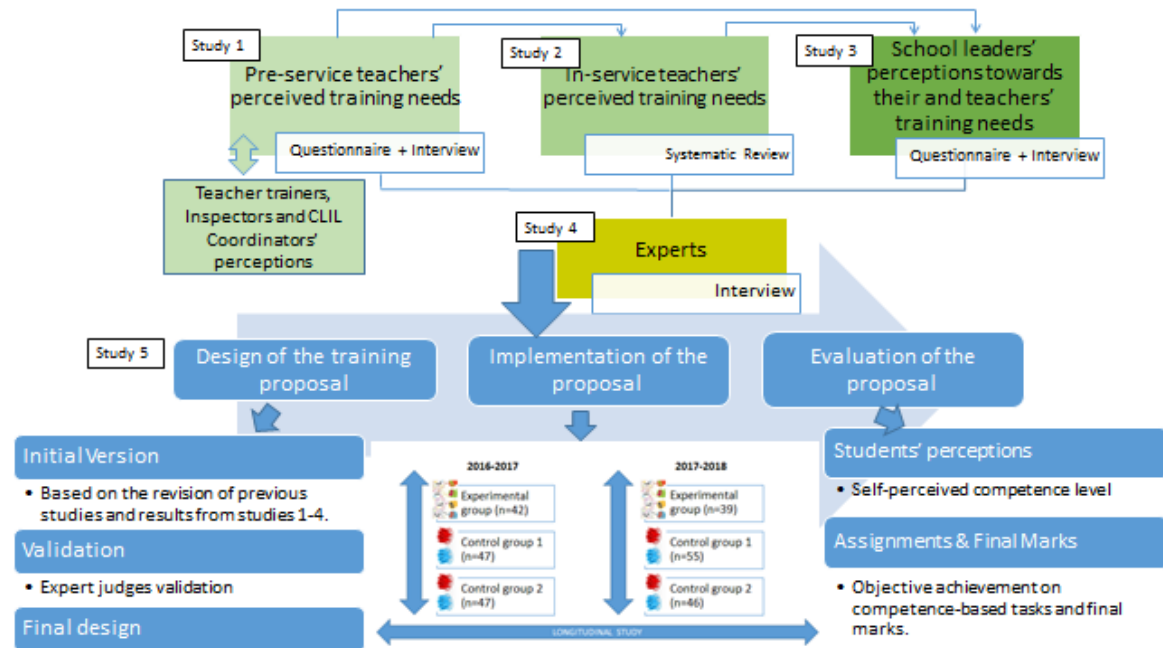


Figure 12. Methodological Design of the PhD (Duplicate of figure 2).

Study 2 aimed to identify in-service CLIL teachers' perceived training need through a narrative review. Even though studies 1 and 2 focused on didactic-pedagogical training needs, organisational training needs emerged from both studies. Especially, it was expressed the importance of organisational conditions to sustain CLIL in the school.

The emerging needs and organisational conditions, together with the initially analysed training needs, were incorporated in **study 3**. This study aimed to analyse school management teams' perceptions regarding their and teachers' training needs, as well as the organisational conditions that favoured CLIL implementation and sustainability. School leaders' perceptions were analysed through a close-ended questionnaire and a semi-structure interview.

The results obtained in the first three studies were compared and validated by a group of CLIL experts from the Spanish context in **study 4**. This validation was done through a semi-structure interview. The results obtained in studies 1 to 4 were used to design **study 5**. The fifth study aimed to design, implement and evaluate an initial teacher education CLIL proposal for primary teachers. Therefore, unlike the four previous studies, study 5 had a quasi-experimental design to evaluate the effects of the designed proposal on the development of student teachers' competences .

Table 24 synthesises the steps done to carry out the five studies, the participants involved, the data collection instruments and the methodological design. Once the methodological design of the doctoral thesis has been described in general terms, the decisions and processes followed

will be detailed for each study. The description of the methodology used per each study will be divided in two blocks depending on the studies' nature: non-experimental studies (block 1), which includes studies 1 to 4, and the quasi-experimental study (block 2), which includes study 5.

Table 24. *Synthesis of the participants, instruments and methodological design used in each study.*

Study	Time	Participants	Instruments	Methodological design
1	March- May 2015	Pre-service teachers (n=44) , teachers trainers (n=10), Inspectors (n=5) and CLIL coordinators (n=9).	Questionnaire Semi-structured interview.	Non-experimental Mixed methodological approach
2	January-April 2016	In-service teachers (based on 7 papers).	<i>Narrative review</i> ²⁵ .	Non-experimental Qualitative approach
3	July 2016 – January 2017	School Management Teams(n=54).	Questionnaire Semi-structured interview.	Non-experimental Mixed methodological approach
4	February 2017- April 2017	CLIL experts (n=10).	Semi-structured interview.	Non-experimental Qualitative approach
5	February-May 2017 September- December 2017	Teacher students from the double degree (n=39).	Self-perceived level of competence questionnaire. Assignment and final marks.	Quasi-experimental design Quantitative

Once the studies have been introduced, the methodological design of each study will be presented in detail in sections 5.4 and 5.5. The methodological design and methods of non-experimental studies (block I) will be explained in section 5.4, whereas the quasi-experimental study (block II) will be presented in section 5.5.

²⁵ A narrative review is not an instrument, but the strategy used to analyse data.

5.4. Block I: Methodological Design of Non-Experimental Studies

5.4.1. Study 1: Pre-service Teachers, Teacher Trainers, CLIL Coordinators and Inspectors' Perceptions.

5.4.1.1. Methodological Design

Study 1 had a threefold aim: first, it was aimed to know the pedagogical training needs of pre-service foreign language teachers. A second aim was to identify CLIL teachers competences. Finally, a third aim was to compare pre-service teachers' opinions with those of teacher trainers, inspectors and CLIL coordinators from the Educational Department. Consequently, study 1 addressed specific objectives 1, 2 and 4 of this PhD, as well as hypotheses 2, 4 and 9 were validated (Table 25).

Table 25. *Alignment between the specific objectives and hypothesis of the doctoral thesis with the objectives of study 1.*

Specific objective of the PhD	Hypotheses of the PhD	Objectives study 1
SO1: To explore Catalan teachers and school management teams' perceived pedagogical and organisational training needs.	H2: Teachers and school management teams' perceive that they do not have enough pedagogical CLIL training to confront the demands of this approach.	SO1: To know pre-service foreign language teachers' training needs for CLIL teaching and learning.
SO2: To know the competences and training requisites of CLIL teachers and school management teams.	H4: Language knowledge, content knowledge and methodological competence are considered essential requisites for CLIL teachers and, consequently, training has to address these requisites.	SO2: To identify CLIL teachers' competences.
SO4: To analyse the concurrence between teachers and school management teams' perceptions with the inspectors, CLIL coordinators from the Education Department and CLIL experts' opinions.	H9: Teachers and school management teams concur in the key competences and knowledge for CLIL, but their perceptions in terms of current training needs vary.	SO3: To match pre-service foreign language teachers' perceptions with those of teacher trainers, inspectors and CLIL coordinators.

Study 1 followed a mixed **methodological approach** with a predominance of quantitative methodology. With regard to quantitative approach, a **transversal non-experimental design mainly descriptive** was used. The methodological design was non-experimental because no

variable was manipulated intentionally since the aim was to know and analyse participants' perceptions in a natural context at one point in time (Hernández-Sampieri et al., 2006). Likewise, the non-experimental design was transversal because it was aimed to analyse participants' perceptions at one point without analysing potential changes in these perceptions over time. Moreover, the design was mainly descriptive because the main aim was to study the perceptions' of a group of people (Latorre et al., 1996).

As for the qualitative methodological approach, it was used to comprehend the training needs and competences pointed by the participants of this study. For this reason, even though the doctoral thesis followed a mixed methodological approach, quantitative methodology predominated because qualitative methodology was used to delve into quantitative results. Additionally, qualitative data was transformed into meaning categories following the constant comparative model from the grounded-theory (Glaser & Strauss, 1967) in order to study the frequency of each category. The qualitative design used to transform qualitative data into categories was the **systemic design**. The qualitative data was revised and, constantly comparing these data, the initial categories and subcategories were created (Hernández-Sampieri et al., 2006). These categories were revised and modified so as to refine them. Likewise, categories were organised so that they could have a narrative meaning.

5.4.1.2. Participants

A total of 62 participants divided in 5 groups participated in this study (Table 26): 1) pre-service foreign language primary teachers; 2) pre-service foreign language secondary teachers; 3) Teacher trainers; 4) Inspectors; 5) CLIL coordinators from Catalan Education Department.

Table 26. Profile and number of participants in study 1.

Pre-service foreign language teachers		CLIL teacher trainers	Inspectors	CLIL Coordinators
Primary Education	Secondary Education			
n=19	n=25	n=10	n=5	n=3
n=44		n=18		
n=62				

This study focused on pre-service teachers perceptions mainly for two reasons. First, previous research had tended to study in-service CLIL teachers' training needs. Even though these studies provided valuable information, it was considered it could not be inferred how these training needs were addressed during initial teacher education. In addition, as previous studies indicated (Durán-Martínez et al., 2016), teachers' perceived training needs vary depending on their experience as teachers, but especially due to their experience in CLIL settings. Therefore, if it is

aimed to offer CLIL teacher education that is adjusted to the career stages, it is necessary to know teachers' perceptions throughout their professional career.

Second, it was decided to study pre-service foreign language teachers' training needs because foreign language teachers are in charge of CLIL implementation in the classroom in most schools, especially at the primary level. At the secondary level, foreign language teachers may not always be in charge of implementing CLIL in the classroom, but they tend to coordinate the project and provide support to content teachers. Consequently, foreign language teachers' perceptions were valuable to know the current situation in terms of initial teacher education in Catalonia. Additionally, teacher trainers, inspectors and CLIL coordinators from the Educational Department were included in order to triangulate the information.

The coordinators of each training programme were contacted through email so as to access pre-service teachers. Teacher trainers were also accessed thanks to the support of the coordinators of the training programmes. Inspectors and CLIL coordinators were contacted with the support of *Consorti d'Educació de Barcelona* (Barcelona's Education Consortium) who addressed the requests to the heads of each section. Those inspectors and CLIL coordinators that accepted to participate were contacted through email.

At the time of the study, 2015, **pre-service foreign language primary teachers** (n=19) were finishing their Primary Education degree with a specialisation in foreign languages at the University of Barcelona. These student teachers had received training as generalist teachers during the first three years. It was not until the fourth academic year that pre-service primary teachers specialised as foreign language teachers. During this last year, they were enrolled in applied linguistics courses. It was during these courses that they started to work on CLIL, especially during the CLIL course (3 ECTS).

Pre-service foreign language secondary teachers (n=25) were also finishing their Master's at the University of Barcelona to become qualified as English secondary teachers. Most of them had previously coursed the English studies degree. During the degree and the Master's, pre-service secondary teachers had received specific training on applied linguistics and second language acquisition. However, they did not have any specific subject on CLIL teaching and learning.

Teacher trainers (n=10), at the time of data collection, had been training foreign language teachers during 14 years on average. All these teacher trainers had experience as CLIL trainers: three of them had been training both pre-service primary and secondary foreign language teachers. Three other teachers had trained pre-service primary teachers. Two of them had

experience with teacher education for secondary teachers and, finally, two of them were trainers of in-service CLIL teachers.

Education inspectors (n=5) had an average experience of 12 years working as primary and secondary inspectors. Two of them worked with primary schools; one of them worked with secondary schools and, the other two worked with both primary and secondary schools. Their field of expertise was language except for one inspector. Each inspector worked on average with 5 schools that had a CLIL project implemented.

Finally, **CLIL Coordinators from the Educational Department** (n=3) had an average experience of 8 years working with schools that had implemented a CLIL project. The main role of CLIL coordinators was to support teachers and schools to design, implement and develop a CLIL project. There was a coordinator per each territorial service (10 in total). Each CLIL coordinator worked with 25 schools on average that had a CLIL project.

5.4.1.3. Instruments

Three data collection instruments were used to address the objectives of study 1: a questionnaire for pre-service teachers; pre-service teachers' semi-structured interview and teachers, inspectors and CLIL coordinators' semi-structured interview (Table 27).

Table 27. Total number of filled questionnaires and semi-structured interviews.

	Pre-service primary teachers	Pre-service secondary teachers	Teacher trainers	Inspectors	CLIL coordinators
Pre-service teachers' questionnaire	19	25	-	-	-
Pre-service teachers' interview	4	4	-	-	-
Trainers, inspectors and coordinators' interview	-	-	10	5	3

Pre-Service Teachers' Questionnaire

Pre-service teachers' questionnaire ([Appendix 1](#)) is an adaptation of Peacock's (2009) questionnaire and semi-structured interview. These instruments, especially the close-ended questionnaire, were used for several reasons. First, due to the robustness of their design since the questionnaire was the result of a systematic review about the training aspects that a pre-service teachers' programme for foreign language teachers should present, as well as the evaluation principles of a training programme. Second, this instrument had been previously

validated, apart from used in other studies such as Ping (2015), Karakas (2012) or Salihoglu (2012). Finally, this instrument allowed to analyse pre-service teachers' perceptions regarding the training received and their training needs.

The first part of the questionnaire consisted of three open-ended questions that aimed to explore student teachers' perceptions about the training programme they were enrolled in and their perceived training needs for CLIL teaching and learning. The open questions were:

1. According to your opinion, what are the main strengths of this training programme for your future as a foreign language teacher and for CLIL teaching and learning? What are the three main weaknesses? Why?
2. Based on your experience, what are your main training needs for CLIL teaching and learning? Why?
3. Based on your experience, how important is to develop the following competences (communicative, self-reflection, methodological and classroom management) for a future CLIL teacher? Why?

The first question was adjusted from Peacock's (2009) study. The second question aimed to explore pre-service teachers' training needs for CLIL teaching and learning. The last questions aimed to know participants' opinion in relation to the relevance of the aforementioned competences for CLIL teaching and learning.

The second part of the questionnaire consisted of Peacock's (2009) close-ended questionnaire. This part had a total of 21 close-ended questions which participants had to rate, using a 6-point Likert scale (1-none, 6-very important), the presence of a given item in their training programme and their perceived training needs relative to this item. All the items from the questionnaire referred to communicative, self-reflection, methodological and classroom management competences. There was more than one item that assessed each competence, except for communicative competence. Nevertheless, note that not all CLIL teacher's competences identified by previous literature were included in this questionnaire. At the time of this study, the initial literature review indicated that these were the most relevant competences. It was not until the semi-structured interviews were held and a deeper analysis of the previous studies was done that other CLIL competences were identified and, consequently, included in the following studies.

For the purpose of this study, Peacock's (2009) questionnaire was slightly modified (Table 28). Initially, the questionnaire only analysed the presence of a given item in a programme. However,

it was considered that pre-service teachers' training needs could not be directly inferred from the fact that a programme worked a specific item or not. For this reason, following the example of Pérez-Cañado (2016), a second column was added in order to explore student teachers' perceived training needs for the items proposed in the questionnaire.

In order to ensure the internal validity of the instrument (Corral, 2009), this questionnaire was piloted before administering it to the actual participants. The questionnaire was piloted with master students who had similar characteristics as those of the participants. Their validation consisted of assessing the intelligibility of the questionnaire's items. Some of the items were reformulated based on the feedback received so as to make them more comprehensible.

Table 28. *Example of some of the items from Peacock's (2009) questionnaire and the adaptation made.*

This programme provides training regarding CLIL teaching and learning that...	Current programme's level						Training Needs					
	1	2	3	4	5	6	1	2	3	4	5	6
1.has a good linkage between different courses												
2.avoids overlapping information between different courses												
3.gives me adequate training in English.												
4.gives me adequate training in teaching and learning CLIL.												
5.gives me adequate training for the needs of the local context (Catalonia).												
6.is up-to-date.												
7.encourages me to reflect on my past experience as a language learner.												
8.enocurages me to be a reflective teacher												

The close-ended questionnaire was administered during Spring 2015 in paper during lesson's time. The participants needed around 15 minutes to answer the questionnaire. Following the Responsible Research and Innovation principles (RRI) established by the European Commission (2017) and the University of Barcelona²⁶, the aims of the study and anonymity preservation were communicated orally before administering the questionnaire.

Pre-Service Teachers' Semi-Structured Interview

A **semi-structured interview** (Appendix 2) was designed to understand pre-service foreign language teachers' training needs and the CLIL teachers' competences selected. An interview is a direct exchange of information between the interviewer and the interviewee who has to answer

²⁶ <http://www.bioeticayderecho.ub.edu/ca/rri>

some questions relative to a topic (Biddle & Anderson, 1989). The direct contact between the interviewer and the interviewee enables a co-construction of a theme. A semi-structured interview is characterised by the establishment of some questions or topics to be addressed during the interview, in which the interviewer is free to add or modify the questions to precise some concepts, make some clarifications or delve into a topic (Hernández-Sampieri et al., 2006).

The designed interview revolve around three questions:

1. What competences should an ideal CLIL teacher have?
2. How far or close do you think you are in relation to this ideal teacher? Why?
3. Do you think that the training received has helped you to be closer to this ideal CLIL teacher? Why?

The participants to this semi-structured interview (n=8) were some of the pre-service teachers that had answered the questionnaire. At the end of the questionnaire, participants could freely decide whether they wanted to receive a summary of the results obtained in this study as well as whether they wanted to further collaborate in this study ([Appendix 1](#)). Thus, those pre-service teachers that volunteer to be interviewed were contacted by email. Four pre-service primary and four pre-service secondary teachers replayed the email.

The date and time of the interviews was agreed with each participant. In all cases, this interview was held two weeks after having filled the questionnaire. The interview was held through Skype or Hangout. All the interviews were recorded, previous participants' informed consent ([Appendix 4](#)), for its later transcription (Taylor & Bogdan, 1992). The interviews lasted around 10 minutes.

Teacher Trainers, Inspectors and CLIL Coordinators' Semi-Structured Interview

Teacher trainers, inspectors and CLIL coordinators' semi-structured interview ([Appendix 3](#)) was divided in two parts. The first part aimed to obtained descriptive information about the interviewee's profile. The second part contained the questions of the semi-structured interview. This second part had four questions: the first three questions were the same as the three open-ended questions of pre-service teachers' questionnaire. A forth question was added in order to go in depth into CLIL teachers' training needs:

1. According to your opinion, what are the main strengths of the training programme for student teachers to become a foreign language teacher? and for CLIL teaching and learning? What are the three main weaknesses? Why?

2. Based on your experience, what do you think that are student teachers' main training needs for CLIL teaching and learning? Why?
3. Based on your experience, how important is to develop the following competences (communicative, self-reflection, methodological and classroom management) for a future CLIL teacher? Why?
4. Do you think that foreign language teachers have other training needs for CLIL teaching and learning? If so, which ones? Why?

The same questions as in the pre-service teachers' questionnaire were maintained for data triangulation purposes (Valles, 1999). That is, this would allow to match pre-service teachers' perceptions with those of teacher trainers, inspectors and CLIL coordinators. Before holding the interviews, they were validated in terms of the relevance and intelligibility of the questions. The interviews should be validated by people with similar profile as the interviewers but the person validating the instrument cannot participate in the study (Corral, 2009; Taylor & Bogdan, 1992). Two teacher trainers, who did not participate in the study, validated the interviews. The comments focused on the intelligibility of the wording. For this reason, some of the questions were reformulated in order to make them clearer.

The participants of these interviews were contacted through the coordinators of the programmes analysed, in the case of teacher trainers (n=10). Inspectors (n=5) and CLIL coordinators (n=3) were contacted through the *Consorti d'Educació de Barcelona*. Most of the interviews were done through Skype, although some face-to-face interviews were held. Due to time constraints, a couple of participants answered the interview by hand.

Teacher trainers, inspectors and CLIL coordinators semi-structured interviews and pre-service teachers' interviews were held concurrently. The interviews, previous informed consent ([Appendix 4](#)) so as to follow the RRI principles, were recorded for their later transcription and analysis. The interviews lasted around 20 minutes on average.

5.4.1.4. Data Analysis

The process followed to analyse the data was different depending on the nature of the data (quantitative or qualitative). Quantitative data, which was obtained through Peacock's (2009) questionnaire, were analysed using the software package SPSS 22. Data reliability, which is the accuracy of the data with the studied construct (Corral, 2009; Latorre, 1996), was analysed through Cronbach's alpha ($\alpha=.958$). Once ensured data reliability since alpha's value was higher than .09 (Ruiz Bolívar, 2002), it was explored data distribution through Shapiro-Wilk test. Despite

applying different procedures to normalise the data, data did not get normalised. For this reason, all the statistical tests used in study 1 were non-parametric.

The statistical tests used were *Spearman*, to correlate participants' perceptions for the same competence, *Mann-Whitney*, to explore possible significant differences between pre-service primary and secondary foreign language teachers, as well as *Kruskal-Wallis* test, to analyse a possible main effect of group. Finally, a *Friedman Two-Way analysis* was used to explore a possible main effect of competence and training need.

Qualitative data, which was obtained through open-ended questions of the questionnaire and semi-structured interviews, was code and categorised using the constant comparison model of Glaser and Strauss (1967). The objective of this analysis was to comprehend the perceptions of each group, but also to compare the perceptions of each collective. The categorisation process was initially inductive; that is, the categories were created through reading the qualitative data and constantly comparing the information. However, the categories were compared with the theoretical framework in order to polish them, following a deductive process. The categorisation was done with the software Package *Atlas.ti 7*.

Teacher trainers' semi-structured interviews were used to create the codes and categories. Once these categories were created, they were applied to pre-service teachers, inspectors and CLIL coordinators' interviews. Categories were repeatedly revised to polish them. When the categories were created, 10% of the data was given to a second rater so as to ensure the reliability of the categorisation. The results showed that there was 93% of agreement. It was decided to make some adjustments based on the suggestions made by the second rater. At the end, the codes were organised in wider meaning categories and they were organised in such a way that they showed a logic narration of the results.

These categories were defined within the framework of this study ([Appendix 5](#)). The identified categories were:

1. CLIL teacher's competences
 - 1.1. Communicative competence.
 - 1.2. Self-reflection competence.
 - 1.3. Methodological competence.
 - 1.4. Classroom management competence.
 - 1.5. Interschool collaboration competence.
 - 1.6. Coordination competence.
 - 1.7. Materials development competence.
2. Content knowledge

3. Training needs:
 - 3.1. Language proficiency.
 - 3.2. Language scaffolding.
 - 3.3. Understanding CLIL approach.
 - 3.4. Student-centred methodologies.
 - 3.5. Collaborative learning.
 - 3.6. Pedagogical content knowledge.
 - 3.7. Dissemination.
 - 3.8. School organisation.
 - 3.9. Staff involvement.
 - 3.10. Material and resources adaptation.
 - 3.11. Material and resources creation.

Once the categories were established and defined, the next step was to revise the initial coding in order to make sure that the participants' ideas were categorised under the right category. This codification consisted of attaching each idea to one of the categories identified. The subsequent step was to count the frequency of each code; that is, how many participants mentioned a given idea. Although the aim of the semi-structured interview was to understand pre-service teachers' education for CLIL (Taylor & Bogdan, 1992), the frequency was calculated in order to know whether there were some topics that particularly concerned the participants or some groups of participants. The results of this analysis are presented in section 6.1.

5.4.2. Study 2: Narrative Review on In-Service Teachers' Perceived Training Needs for CLIL.

5.4.2.1. Methodological Design

Study 2 had two aims: on the one hand, to identify the training needs of primary and secondary in-service CLIL teachers. On the other hand, to explore whether these training needs varied due to in-service teachers' experience in CLIL settings. Table 29 shows the alignment between the specific objectives and hypotheses of the doctoral thesis and the objectives of study 2.

A **narrative review** was conducted to study the established objectives. A narrative review is a critical evaluation and synthesis of already published research around a topic of interest in order to generate new theories and perspectives about the topic of study (American Psychological Association, 2010; Timulak, 2009; Torraco, 2005). Narrative reviews are characterised by using a qualitative methodological approach since statistics are not used to synthesise the findings (Timulak, 2009).

Table 29. *Alignment between specific objectives and hypotheses of the doctoral thesis and study 2 objectives.*

Specific objectives of the PhD	PhD Hypotheses	Study 2 Objectives
SO1: To explore Catalan teachers and school management teams' perceived pedagogical and organisational training needs.	H2: Teachers and school management teams perceive that they do not have enough pedagogical CLIL training to confront the demands of this approach. H3: Teachers and school management teams do not believe they have enough organisational training to implement CLIL projects.	OE1: To identify the main training needs reported by in-service primary and secondary CLIL teachers. OE2: To explore whether in-service CLIL teachers' training needs vary due to in-service teachers' experience in CLIL settings.
SO2: To know the competences and training requisites of CLIL teachers and school management teams.	H4: Language knowledge, content knowledge and methodological competence are considered essential requisites for CLIL teachers and, consequently, training has to address these requisites.	OE1: To identify the main training needs reported by in-service primary and secondary CLIL teachers. OE2: To explore whether in-service CLIL teachers' training needs vary due to in-service teachers' experience in CLIL settings.

Systematic reviews tend to focus on two kinds of topics: mature topics (those topics that have a long trajectory in the research field) and new or emergent topics (those research topics that have not been studied in depth yet or that are emerging) (Torraco, 2005). As for study 2, it is a **narrative review of an emergent topic** because CLIL is a fairly new approach and, therefore, research on this field is in its infancy (Cenoz et al., 2014; Dalton-Puffer, 2011; Pérez-Cañado, 2012). This is especially true for CLIL teacher education and training needs (Pérez-Cañado, 2012).

The theoretical framework (See chapter 4) has shown that there is a gap between the competences associated to CLIL teachers and the training they receive, which tends to be scarce and focused on language proficiency and methodological competence. Therefore, it is necessary to systematise and synthesise what previous research has found about CLIL teachers' training needs so that teacher education addresses these needs. For this reason, in order to contribute to close the gap, it was decided to conduct a narrative review.

5.4.2.2. Search and Selection of the Studies

Once the aim of the study was established, the process to select those studies that had the potential to be included in the narrative review started. The search of the articles took place during winter 2016. This search had time and language constraints. The studies that could be

included in an initial search had to be published after 1995. This date was selected because it was when CLIL approach started to be encouraged by the European Council. Indeed, it was in 1995 when the European Union's White Paper motivated the integration of content and language in the learning process (Council of Europe, 1995). As for the language, studies had to be published either in English or Spanish.

SCOPUS and ERIC (ProQuest) were used as data bases to search the articles. However, secondary search techniques were also used, such as hand search in the reference list of some studies. A log was used in order to organise all the information (some eligible studies are retrieved in table 30).

Table 30. Example of the log created to organise the studies selected during the first search.

Title	Year	Reference	Keywords	Country
Focus on the teacher	2012	Griffiths, C. (2012). Focus on the teacher. <i>ELT Journal</i> , 66(4) doi:10.1093/elt/ccs043	None	Turkey
The foreign language teachers' roles in response to the knowledge society requirements	2011	Cately, Y.M. (2011). The foreign language teachers' roles in response to the knowledge society requirements. <i>Procedia Social and Behavioural Sciences</i> , 11, 127-131, doi:10.1016/j.sbspro.2011.01.047	"foreign language teacher" "English for Specific purposes" "content and language integrated learning" "teacher development"	Romania
Learning to become a CLIL teacher: teaching, reflection and professional development.	2013	Escobar-Urmeneta, C. (2013). Learning to become a CLIL teacher: teaching, reflection and professional development. <i>International Journal of Bilingual Education and Bilingualism</i> , 16(3), 334-353. DOI: 10.1080/13670050.2013.777389	"teacher education models" "teacher-led enquiry" "classroom interactional competence" "CLIL" "code choice" "internship"	Spain
La formació inicial del professorat d'AICLE. Eines per a la pràctica reflexiva	2013	Arbonès-Solà, C., Civera-López, I. (2013). La formació inicial del professorat d'AICLE. Eines per a la pràctica reflexiva. <i>Temps d'Educació</i> , 45, 79-95.	"AICLE" "formació inicial professorat" "pràctica reflexiva" "entorns personals d'aprenentatge" "aprenentatge significatiu" "web 2.0"	Spain

The keywords used to search the studies were: CLIL, AICLE, training, teacher education, teacher training, in-service training, ongoing development, pre-service education, initial teacher

education, needs analysis, training needs, bilingual education, perception, teacher perceptions. After the initial search, a total of 56 eligible studies were retrieved.

Inclusion Criteria were established in order to decide if the selected studies would finally be part of the narrative review:

1. The study had to be empirical, it could not be a theoretical revision of the topic.
2. The study had to analyse pre-service or in-service teachers' training needs for CLIL teaching and learning.
3. The study had to specify the CLIL training that the participants had received or they were receiving, their language proficiency and their profile (content, language teachers...).
4. The studies could include both quantitative and qualitative data provided that the process followed was rigorous, reliable and valid.

It is worth noting that, initially, it was established that studies had to analyse pre-service primary teachers' training needs. However, due to the reduce number of studies that analysed the needs of this group, it was decided to widen the search and include studies that explored pre-service secondary teachers training needs. Nevertheless, the number of studies was still scarce to conduct a narrative review. Consequently, studies that analysed in-service primary and secondary CLIL teachers' training needs were included.

Once the aforementioned criteria had been applied, 7 studies accomplished all the criteria out of the 56 studies initially selected. Most studies were rejected because they did not include either teachers' perceived training needs or teachers' profile and previous training. Furthermore, other studies were disregarded because of the contextual differences between that study and the selected ones. Having included these studies would had put at risk the validity of the study. For instance, one of this contextual differences was teachers' initial education. There was a study in which primary teachers had not receive any previous training to work as a teacher.

It is important to highlight that none of the included studies analysed pre-service teachers' training needs. Therefore, these narrative review is solely focused on in-service CLIL teachers' perceptions.

5.4.2.3. Description of the Selected Studies

The narrative review included seven studies which were published between 2005 and 2015 (Table 31). Three of the studies were conducted in Spain (Cabezuelo Gutierrez & Fernández Fernández, 2014; Pena-Díaz & Porto-Requejo, 2008; Pena Díaz et al., 2005), one in Italy (Di

Martino & Di Sabato, 2012), another one analysed the training needs of European and South American CLIL teachers, being the Spanish cohort the largest one (Pérez-Cañado, 2016c). The sixth selected study analysed the perceptions of Colombian teachers (Truscott de Mejía et al., 2012) and the seventh was conducted in Vietnam (Diem Trang & Thanh Nga, 2015).

Table 31. *Characteristics of each study.*

Study	Country	Participants	Educational Stage	CLIL training	Language knowledge	CLIL experience	Teachers' profile
Fernández-Fernández et al. (2005)	Spain	11	Primary and Secondary	Language and methodology	B1-C1	None	Language and content teachers
Pena-Díaz & Porto-Requejo (2008)	Spain	57	Primary	Language and methodology	B1-C1	Scarce	Language teachers
Di Martino & Di Sabato (2012)	Italy	52	Secondary and VET	None	B1-C1	None	Content teachers
Truscott de Mejía et al. (2012)	Colombia	56	Primary	Methodology	B2-C1	CLIL teacher	Language teacher
Cabezuelo-Gutiérrez & Fernández-Fernández (2014)	Spain	17	Primary and Secondary	Language, methodology, ICT and materials	B2-C2	CLIL teacher	Language and content teachers
Pérez-Cañado (2016)	Europe and South America	241	Primary and Secondary	From courses to masters	B2-C2	CLIL teachers	Language and content teachers
Diem-Trang & Thanh-Nga (2015)	Vietnam	8	Primary	Methodology	B1-B2	Scarce	Language teachers

The fact that the studies selected were biased towards the Spanish context is not arbitrary. As previous studies have already highlighted, CLIL teacher education and training needs have been mainly researched in the Spanish context (Cenoz, 2013; Dalton-Puffer et al., 2014; Pérez-Cañado, 2012).

As for the training participants of these studies had received, note that they had namely received training on language proficiency and methodology. Regarding the experience as CLIL teachers, when the studies were conducted, participants of two studies had not started to work as CLIL teachers yet since they would start the following academic year (Di Martino & Di Sabato,

2012; Pena Díaz et al., 2005). The participants of all the other studies did had experience as CLIL teachers. Nevertheless, some of these participants had scarce experience (Diem Trang & Thanh Nga, 2015; Pena-Díaz & Porto-Requejo, 2008), whereas others had more experience working as CLIL teachers (Cabezuelo Gutierrez & Fernández Fernández, 2014; Pérez-Cañado, 2016c; Truscott de Mejía et al., 2012). The participants from Diem Trang and Thanh Nga (2015) and Truscott de Mejía et al. (2012) worked at the primary education, whereas all the other participants worked in primary and secondary education.

5.4.2.4. Categorisation Process and Analysis

A qualitative approach was adopted to analyse and compare the results obtained in the different studies. Concretely, the **descriptive-interpretative approach** was used. This approach allowed to analyse both descriptive or phenomenological information and interpretative or hermeneutic one (Timulak, 2009). This approach established the following steps:

1. The data is classified into categories and units.
2. The meaning units are delineated.
3. The categories are generated by the constant comparison of meaning units.
4. The main findings are abstracted.

Table 32. *Meaning units of each study.*

Study	Meaning Units
Fernández-Fernández et al. (2005)	Language training; CLIL theory and methodology; School organisation; preparation and creation of materials.
Pena-Díaz & Porto-Requejo (2008)	Language competence; bilingual methodology; theoretical knowledge; interschool collaboration; materials and resources.
Di Martino & Di Sabato (2012)	Language competence; methodology; materials selection; organisation and planning; assessment.
Truscott de Mejía et al. (2012)	Pedagogical language knowledge; materials development; motivation; methodology; space; assessment.
Cabezuelo-Gutiérrez & Fernández-Fernández (2014)	Language proficiency; materials and resources; methodology; school organisation.
Pérez-Cañado (2014)	Language and intercultural competence; theoretical aspects; methodology; materials and resources; ongoing development.
Diem-Trang & Thanh-Nga (2015)	Planning; materials adaptation; classroom management; methodology; language proficiency.

In the context of this narrative review, the first step was to outline the training needs identified in each selected study (Taylor & Bogdan, 1992). These training needs constituted the meaning units; that is, the minimum units with information (Table 32). The second step was to compare and align the training needs of each study. This step intended to analyse whether the studies identified the same training needs although different labels were used. The third step consisted

of creating the categories by the constant comparison of the meaning units created in the first step (Table 33). The data was analysed from the creation of these categories so as to report the main findings.

Despite following an inductive process to create the meaning units, the meaning categories were created following a deductive process. That is, the meaning categories were matched with previous theoretical works. Specifically, *The European Framework for CLIL Teacher Education* (Marsh et al., 2010) was used. This framework was selected to create the meaning categories because it is a framework that intends to describe and conceptualise those domains that CLIL teachers should develop through training. Secondly, this framework is the result of a European project (CLIL-CD) which examined the curricular and learning needs of CLIL teachers. On the other hand, as shown in table 18 from the theoretical framework, the competences that this framework establishes not only are aligned with key teachers' competences, but also they are wide enough to encompass the training needs identified by previous studies. Additionally, the descriptive elements of this framework ease the alignment between the identified training needs and the competence these needs belong to.

Table 33. *Study 2 meaning categories and units.*

Meaning Categories	Meaning units
CLIL Theoretical Underpinnings Learning theories beyond CLIL	CLIL theory
	Second language acquisition
Language Awareness Language proficiency and language pedagogical knowledge	Language skills
	Language scaffolding
Methodology and Evaluation Pedagogical aspects related to CLIL teaching and learning.	CLIL methodology
	CLIL assessment
Research and Evaluation Knowledge about CLIL research and the impact of CLIL in the school	
Resources and learning environments Materials and learning environments for CLIL teaching and learning.	Materials development
	Technological resources
Classroom Management Management of classroom social and learning dynamics and students' motivation	Student Motivation
CLIL Management Planning and implementing the school project	School organisation
	Collaboration
	Interschool collaboration

The use of **inductive and deductive** processes to create the categories allowed to categorise the studies' findings qualitatively. In addition, this process allowed to compare not only the training needs that referred to the same competence, but also those needs that refer to the same dimension. However, the weakness of this process was that using pre-established categories shadowed the peculiarities of each study. After analysing the training needs identified by each study and polishing this analysis, the meaning categories and units are summarised in Table 33. Apparently, despite being included in the *European Framework for CLIL Teacher Education*, self-reflection competence was not analysed by any study or mentioned by any participant. These categories were applied to the seven studies analysed. The results of this study are presented in section 6.2.

5.4.3. Study 3: School Management Teams' Perceptions

5.4.3.1. Methodological Design

The third study of this doctoral thesis aimed to analyse the perceptions of school management teams from Catalan primary schools regarding their training and training needs for CLIL implementation, as well as to analyse how CLIL had been implemented in their schools and what conditions had favoured this process. Such a broad aim was specified in more concrete objectives. These specific objectives together with their alignment with the PhD objectives and hypotheses are presented in table 34.

A mixed by stages methodological approach with prominence of quantitative methodology was used. As for quantitative approach, a **non-experimental transversal and descriptive methodological design** was used. The design is non-experimental because no variable was manipulated deliberately (Latorre et al., 1996) because the objective was to know and analyse school management teams' perceptions in a natural context at one point in time. Moreover, the non-experimental design was transversal because participants' perceptions were studied in one point in time without analysing how these perceptions changed over time. The design was mainly descriptive because the main aim was to study school management teams' perception, as the specific objectives of this study indicate (Table 34). However, even though the objectives and hypotheses were descriptive, the data was also related in a correlational-causal way, as it will be described in the data analysis section.

With regard to **qualitative methodological approach**, it was used to comprehend school management teams' perceptions about their and teachers' training for CLIL, but, specially, to know school leaders' opinion about CLIL implementation process in their schools. Thus,

qualitative data was collected with the aim to comprehend and delve into quantitative data. For this reason, this study has a mixed methodological approach with a prominence of quantitative data (Hernández-Sampieri et al., 2006).

Table 34. *Alignment between the PhD specific objectives and hypotheses and study 3 objectives.*

Specific objectives of the PhD	Hypotheses of the PhD	Study 3 Objectives
SO1: To explore Catalan teachers and school management teams' perceived pedagogical and organisational training needs.	H2: Teachers and school management teams perceive that they do not have enough pedagogical CLIL training to confront the demands of this approach. H3: Teachers and School management teams believe that they do not have enough organisational training to implement CLIL projects.	SO1: To analyse school management teams' perceptions regarding their and teachers' training needs to implement CLIL in the school and in the classroom.
SO2: To know the competences and training requisites of CLIL teachers and school management teams.	H4: Language knowledge, content knowledge and methodological competence are considered essential requisites for CLIL teachers and, consequently, training has to address these requisites. H5: Leadership is a key competence for school management teams. H6: The most effective training modality for CLIL is that one that addresses teachers' training needs depending on the characteristics of the context.	SO2: To identify school management teams' perceptions about their and teachers' education for CLIL implementation in the school and in the classroom. SO3: To know school management teams' perceptions regarding the type of training they and teachers should receive to implement CLIL in the school and in the classroom.
SO3: To identify the organisational conditions of primary schools that favour the implementation and sustainability of CLIL projects.	H7: The reason why primary schools decide to start a CLIL project and how CLIL is conceptualised determine how CLIL is implemented. H8: CLIL implementation and sustainability requires some organisational conditions being teacher collaboration one of the most prominent and the shortage of teachers qualified for CLIL its main barrier.	SO4: To understand why and how a CLIL project is implemented in a Catalan primary school. SO5: To know what school-based conditions favour CLIL implementation and what the main difficulties are.

Qualitative data was transformed into categories using the constant comparative model of Grounded Theory (Glaser & Strauss, 1967) so as to analyse school management teams' perceptions. The **systemic design** was the qualitative approach used to transform qualitative data into categories. All qualitative data was revised and, through constant comparison, the initial categories and subcategories were created. These categories were revised and modified so as to refine them. Additionally, these categories were organised so that they had a narrative sense (Taylor & Bogdan, 1992).

5.4.3.2. Participants

The characteristics of school management teams that participated in this study will be presented. First, the participants to the school management teams' questionnaire will be described and, second, the school leaders that were interviewed will be presented.

Participants of School Management Teams' Questionnaire

A total of 54 (out of 170 schools that were contacted) members of school management teams from Catalan²⁷ primary schools with a CLIL project participated in this study. Following the RRI, participants were informed about the purpose of this research, their voluntary participation to the study and how the data would be used. All these participants accepted to answer the close-ended questionnaire and seven of them agreed to collaborate in the semi-structured interview. Participants were from primary schools located around Catalonia (Table 35).

Table 35. *Total number of filled questionnaires per territorial service.*

Territorial Service ²⁸	Total number of filled questionnaires
Baix Llobregat	9
Consorci d'Educació de Barcelona	4
Catalunya Central	9
Lleida	5
Tarragona	9
Vallès Occidental	7
Barcelona Comarques	5
Girona	3
Maresme-Vallès Oriental	1
Terres de l'Ebre	2

80% of the school management teams' worked in State schools, whereas 20% of them worked in semi-private schools. With regard to school's level of complexity²⁹, 34% of the participants

²⁷ Catalan school management teams are formed by the head teacher, head of studies and academic secretary.

²⁸ The territorial services is the organisation used by the Educational Department to divide the schools in ten zones. Each territorial service is in charge of providing the resources and support to schools, teachers and the educational community.

belonged to low complexity schools, 45.3% to middle complexity schools and 20.8% to high complexity institutions. As for the size of the schools, 16 had one line (one group per grade), 29 had two lines (two groups per grade) and 8 had three lines (3 groups per grade). There was a school in which the number of lines varied depending on the grade. As for schools' location, 67.3% were located in urban areas, 20% in semi-urban areas and 12.7% in rural areas.

The questionnaire was answered mainly by head teachers(58.2%), followed by CLIL coordinators (27.3%), heads of studies (10.9%) and, finally, academic secretaries (3.6%). Some schools decided that the CLIL coordinator was who participated in the study due to his/her leadership in CLIL, as previous research has highlighted. As for participants experience in a management position, the average was 8.76 years with a standard deviation of 6.36. The data also showed that school management teams, who participated in this study, had a long experience as teachers (Figure 13) since more than 60% of them had more than 20 years of experience as teachers.

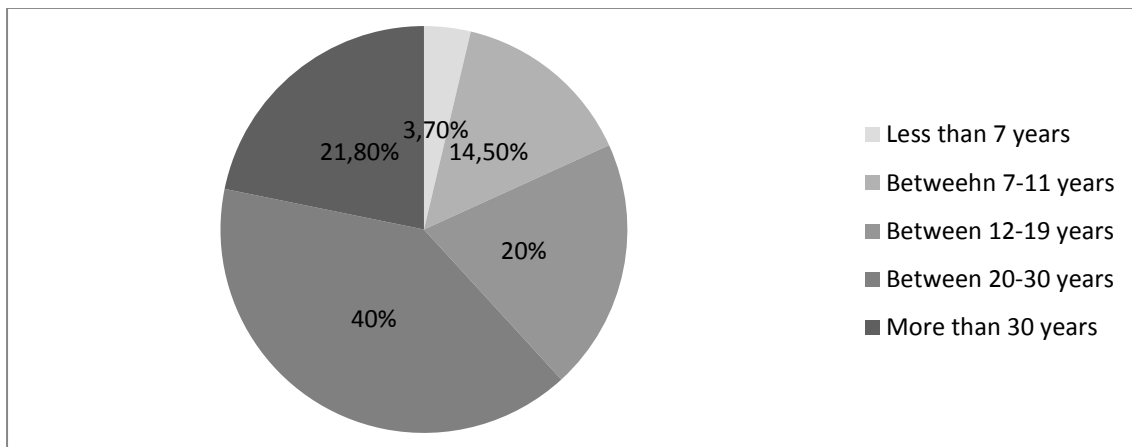


Figure 13. School management teams' experience as teachers (%).

As for the number of years with a CLIL project, the mean was 4.73 with a standard deviation of 3.48. Most of the members of the school management teams were participating (34.5%) or had participated (21.8%) in CLIL classroom implementation. 43.6% of the participants had never participated in CLIL teaching and learning. However, at data collection time, most of school management teams did not participate in CLIL teaching and learning (65.4%).

²⁹ Catalan schools are classified in terms of their low/middle/high level of complexity. The level of complexity is calculated in terms of students' socio-economic and cultural status, their origin...

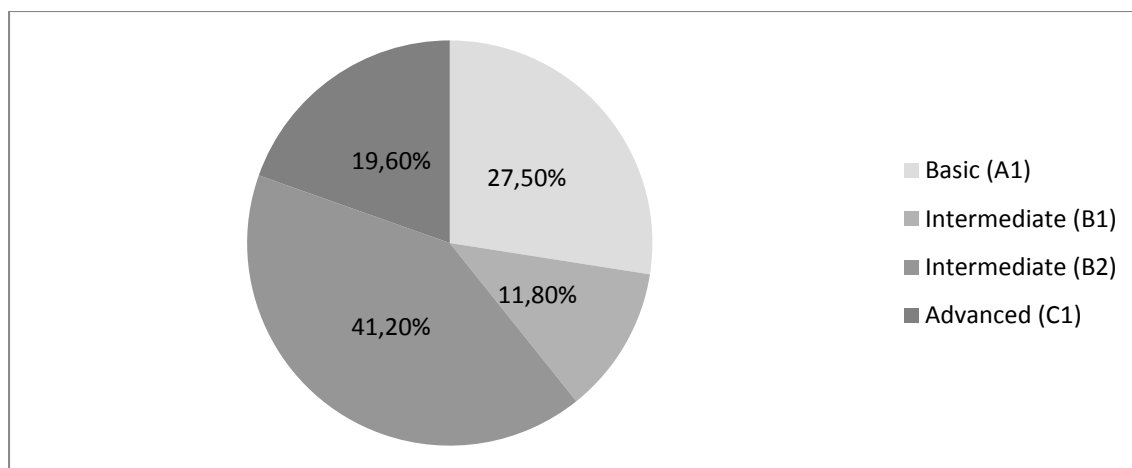


Figure 14. Language level of the members of the school management team.

Around 60% of school management teams had a B2 level or higher in the CLIL language. Nevertheless, 27.5% of school leaders had a basic level (A1 according to the CEFR) (Figure 14). Out of 54 participants, 20 had no certificate that proved their language level and 24 of them had an official certificate. However, more than 60% of the participants had a B2 level which is a requirement established by the Educational Department to teach a foreign language.

Participants of School Management Teams' Semi-Structured Interviews

With regard to school management teams' semi-structured interviews, six interviews were held in which participated a total of seven members of school management teams and CLIL coordinators. A head teacher and the head of studies participated simultaneously in one of the interviews. The participants of semi-structured interviews had already filled the school management teams' questionnaire and had expressed their desire to further collaborate in this study. Thus, a certain bias could be expected. Concretely, 13 of the respondents of the questionnaire expressed their will to collaborate in the study. The participants could freely decide to continue participating in the research by writing their e-mail address at the end of the questionnaire.

These 13 participants were contacted through email in order to communicate the aim of the semi-structured interview and invite them to participate. Initially, only three people answered the email. For this reason, the participants were emailed twice. After the initial contacts, a total of eight members of school management teams from different schools expressed their willingness to participate. However, out of these 8 schools, only 6 members established a data and time to held the interview. The semi-structured interviews were held with these six members of the school management teams and CLIL coordinators during November 2016 and January 2017.

Table 36 synthesises the characteristics of the schools participating in this interview. In all cases, the schools offered primary education, although a couple of them also offered secondary education. The schools were from different places of the Catalan geography, even though three out of six schools were from Barcelona's province, two from Lleida's province and one from Tarragona. Three of the participants were the CLIL coordinators of the school and four were members of the school management team. Most of the schools had been implementing CLIL for a short period of time, whereas two of them had started CLIL a long time ago. In general, these schools had implemented CLIL in the whole primary stage or the upper cycle (grade 5 and 6). However, note that one of the schools had started implementing CLIL in infant education and they were extending the project while the group was moving on a higher grade.

Table 36. *Characteristics of the schools participating in the semi-structured interview.*

School	Participant	Years with CLIL implemented	School's ownership	Grade where CLIL was implemented	Area
1	CLIL coordinator	1	Semi-private	Primary stage	Esplugues
2	Head teacher and head of studies	3	Semi-private	First cycle, aim whole primary stage	Terrassa
3	CLIL coordinator	15	State	Upper-cycle	Lleida
4	CLIL coordinator	8	State	Primary stage	Lleida
5	Head teacher	2	State	Upper-cycle	Sant Vicenç dels Horts
6	Head teacher	2	State	Upper-cycle	Reus

Regarding the specific characteristics of the participants in the semi-structured interviews (Table 37), most members of the school management team did not participate in CLIL teaching and learning. The language used in CLIL was English in all cases. In general, participants had the language level required by the Catalan Education Department to teach through a foreign language (B2). School management satisfaction regarding CLIL implementation and students' learning in CLIL was high in all cases.

Table 37. *Characteristics of the respondents of the semi-structured interview.*

School	CLIL teacher	CLIL language	Language level ³⁰	Satisfaction towards CLIL implementation (out of 6)	Satisfaction towards students' learning (out of 6)
1	Yes	English	C1	5	5
2	No	English	B2	6	6
3	Yes	English	B2	5	5
4	Yes	English	B2	5	5
5	No	English	A1	4	4
6	Yes	English	B2	6	6

5.4.3.3. Instruments

Two different instruments were used to study the objectives established for study 3: school management teams' questionnaire and school management teams' semi-structured interview. The process followed to elaborate the instruments and their characteristics are detailed now.

School-Management Teams' Questionnaire

A close-ended questionnaire with a 6-point Likert scale was used to analyse school management teams' perceptions regarding their training and training needs for CLIL, their opinion about teachers' training and training needs for CLIL, as well how CLIL had been implemented in their schools, what conditions had favoured it and how they assessed this process ([Appendix 6](#)). A close-ended questionnaire was used because it allowed to study a wider sample and generalise the findings (Hernández-Sampieri et al., 2006).

The close-ended questionnaire was an adaptation of Laorden and Peñafiel's (2010) questionnaire since this instrument was created to study the perceptions of school-management teams from Madrid. This questionnaire was used because, on the one hand, it had already been used in another research with the same purpose and included the main elements that were aimed to be studied. On the other hand, despite contextual differences, the use of this questionnaire allowed to explore whether the perceptions of Catalan school leaders were endemic of the context or, on the contrary, they were common in other contexts. Consequently, this questionnaire made possible to obtain information about school management teams' training for CLIL, the school resources, school organisation and the difference between professional profiles.

³⁰ According to the Common European Framework of reference for languages.

Despite the relevance of this questionnaire, some changes were made in order to adjust the instrument to Catalan context and characteristics. For instance, the role of CLIL coordinators from the Educational Department was included, as well as some of the peculiarities of this research. Significant changes were made in the identification section of the questionnaire. One of these changes was to make the instrument anonymous. This decision was made because it was considered that, following the principles of Responsible Research and Innovation (RRI), it was necessary to preserve participants' anonymity to conduct a responsible research. It was believed that participants would feel more comfortable and safer. Additionally, the research objective was not to know the individual needs of the participants but to explore and analyse the most common needs of school management teams.

On the other hand, new questions were added in the identification section to characterise the respondents. In addition, these questions allowed to control for some independent variables when the results from the questionnaire would be analysed. The identification questions focused on: school ownership; school's level of complexity; number of groups per course; area (urban, semi-urban or rural); subject in which the CLIL approach was implemented; the number of hours devoted to CLIL per week; the amount of experience as teachers; and language knowledge. As for the experience as teachers, the stages established for teachers' life-cycle were used (de la Cruz, 1995).

After the identification questions, there were the questions related to the purpose of this research. It was decided to add two general questions at the beginning of the questionnaire to know school management teams' satisfaction about CLIL implementation and students' learning in CLIL Settings. Even though previous studies have stated that general questions to measure participants' satisfaction should appear at the end of the instrument, other studies consider that these questions could be affected by the previous questions when they are at the end (Martínez-Olmo, 2002). For this reason, it was decided to include these general two questions at the beginning of the instrument. Moreover, including these two questions at the beginning made that respondents started with simple and easy questions, as previous research has suggested (Latorre, 1996; Valles, 1999).

The order of the questionnaire's section was also modified so as to orientate the organisation to the research objectives. Thus, first, the questions relative to the organisational changes made as a consequence of CLIL implementation and the main difficulties were presented. Second, school management teams were asked for the training they had received and the training that any school leader should have to implement a CLIL project. Next, school leaders had to rate the

training that teachers should have for CLIL and their main training needs. Finally, participants were asked about their opinion regarding the aspects they had to improve and three potentialities of this project.

The items of each questions were also modified, especially in the questions about organisational changes and pedagogical and organisational training needs. These changes were made for several reasons: first, aspects relative to organisational needs and teacher education that previous research had highlighted were included. Second, the competences identified by Bertaux et al. (2009) and Marsh et al. (2010) were considered. Finally, the results obtained in studies 1 and 2 were taken into account for data triangulation purposes.

Finally, a brief introduction was added to the questionnaire in order to explain the aim of the research and the questionnaire. Additionally, it was made clear that the questionnaire was anonymous and that the data would be analysed globally. At the end of the questionnaire, a section was added to express thanks for participating in the study and to ask participants for their voluntarily participation in further stages of this research.

Concurrently to the creation of the questionnaire, the Language Service from the Catalan Education Department was contacted to determine the procedure that should be followed to have the information about primary school that had a CLIL project. It was agreed that the questionnaire would be sent through the Education Department, concretely through CLIL coordinators from each territorial service who would sent the questionnaire to the schools. The questionnaire was sent to 170 primary schools from the Catalan context with a CLIL project.

Once the questionnaire was created, it was validated to ensure its internal validity (Corral, 2009). A **validation template** ([Appendix 7](#)) was created in order to assess the intelligibility and reliability of each question and item. Each question was rated using a qualitative scale (Excellent, Good, Poor and Bad). Moreover, it was included a space to write the observations. The questionnaire and the validation template were sent through email in which it was explained the thesis' aim and the purpose of the questionnaire and its validation. An expert in educational methodology and eight members of school management teams were contacted. The validation process was done during May, 2016. At the end, the validations of the expert in educational methodology, two head teachers, one head of studies and one CLIL coordinator from three different schools were returned.

The comments turned to be very valuable. Almost all suggestions were taken into account and the necessary modification were done. The suggestions tended to focus on the items' wording in

order to avoid ambiguity and favour clear questions and answers. For instance, the following change was made in order to make the wording specific (Figure 15).

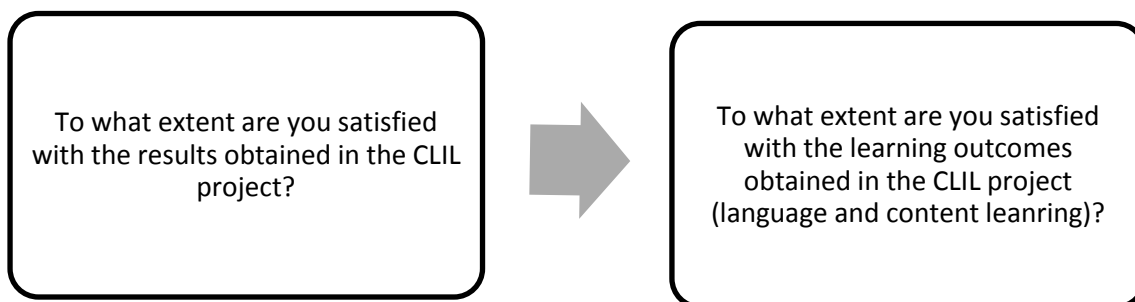


Figure 15. Example of the modifications made based on the suggestions received in the validation process.

Surprisingly, school management teams tended to perceive the identification questions as not relevant, especially those relative to teaching and management experience. However, these questions were not removed because it was believed that they were important not only to describe the sample, but also to analyse possible tendencies between the characteristics of the respondents and the schools with the answers obtained. Additionally, the other validators did perceive that these types of questions were relevant.

Table 38. Example of type of questions asked in school management teams' questionnaire.

1. What are the main modifications that had to be done to implement the CLIL project ? (1- completely disagree, 6- completely agree).						
Items	1	2	3	4	5	6
To modify teachers' schedule.						
To modify content allocation between teachers.						
To increase the coordination and meetings to develop the CLIL project.						
To plan and distribute the curricular content between the involved subjects.						
To modify the School's project and language project to adjust them to the CLIL project.						
To modify the methodology for teaching and learning.						
To establish new assessment methods.						
To establish new communication channels with other schools.						
Others (specify):						

Therefore, the final version of *School Management Teams' Questionnaire* had the following structure (Table 38):

1. Identification Questions. This section included 16 questions about the characteristics of the school and the respondent.

2. Questionnaire. This section was subdivided in:
 - a. Two questions about school leaders' overall satisfaction with CLIL project.
 - b. School organisation.
 - c. School management teams and teachers' education for CLIL.
3. Opinion.

School Management Teams' Semi-Structured Interview

The aim of the **school management teams' semi-structured interview** was to comprehend and delve into how CLIL was implemented in the schools so as to have a more adjusted perspective ([Appendix 10](#)). For this reason, the interview script started from the results previously obtained in the school management teams' questionnaire, using a mixed methodological design by stages ([Figure 16](#)). For instance, while the questionnaire intended to collect information that allowed to describe the process followed during school-based CLIL implementation, the semi-structured interview aimed to understand how this process had been carried out and why, as well as to know school management team's opinion about the process followed.

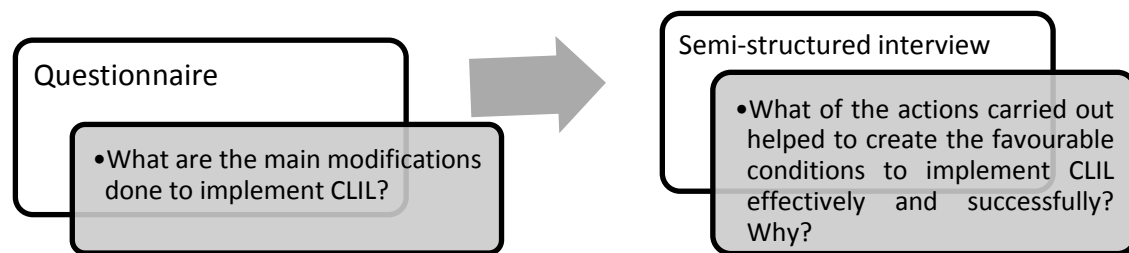


Figure 16. Example of the type of questions asked in the questionnaire and in the semi-structured interview.

However, even though the interview started from previous findings, the objectives of the thesis were also considered. Therefore, the questions in the script referred to both teachers and school management teams' education and training needs and the organisational conditions that favoured CLIL implementation and sustainability. Likewise, some general questions were added to identify participants' opinion about CLIL in their schools. Previous literature was also considered to design the script, especially previous works that referred to school-based conditions for educational change, as summarised in chapter 3. The conditions established by previous studies were used to ask more concrete questions or to write down some sub-questions that would be asked in case that the respondent had not made reference to that topic. In this way, the validity of the instrument was ensured (Corral, 2009).

Once the interview script had been created ([Appendix 8](#)), it was sent to an expert of school organisation together with a validation template ([Appendix 9](#)). The aim of this validation was twofold: one the one hand, to identify the relevance and intelligibility of the proposed questions. On the other hand, to assess the adequacy of the questions in relation to the study objectives and the participants. This validation revealed that there was no question that directly addressed school management teams and teachers' education and training needs for CLIL. Indeed, there was a certain tendency towards generic questions. Consequently, this validation was used to rethink the semi-structured interview and orientate the script towards the research objectives ([Appendix 10](#)). Each question of the interview was linked to the research objective it referred to (Table 39). Nevertheless, more questions were orientated to comprehend how CLIL was implemented in Catalonia and the decisions and modifications made because it was considered that school leaders were the adequate group to ask about these aspects.

Table 39. *Alignment between the objectives and the questions of the semi-structured interview.*

OBJECTIVE	DIMENSION	QUESTION
Objective A: To know the training needs.	Teachers' education and training needs.	5
	School management teams' education and training needs.	6
Objective B: To know school-based conditions to implement CLIL.	Coordination, participation and innovation.	2,3,8,9
To know the overall opinion about CLIL implementation.	Opinion about the results and the Educational Department support.	4,7

The final version of the school management teams' semi-structured interview ([Appendix 10](#)) included nine questions. Some of these questions had, at the same time, some sub-questions to guide the interviewee in case the answer to these questions was not provided from the generic question. Table 40 shows an example of question and some sub-questions. The interviews were held between November 2016 and March 2017. All interviews were held through Skype or telephone. Following the RRI principles, participants were informed about the purpose of the interview, they voluntary participation and how the data would be used. Once they were informed, they were asked to sign an informed consent ([Appendix 11](#)). The interviews were recorded for their later transcription. Interviews lasted around 22 minutes on average.

Table 40. Example of one of the questions in school management teams' semi-structured interview.

In general, what of the carried out actions have allowed to create the favourable conditions to implement CLIL effectively and successfully?
<ul style="list-style-type: none"> • What coordination actions have encouraged the implementation and development of CLIL? How have these actions been done? (rols, coordination, meetings...). • What actions have been carried out to motivate the participation and communication between CLIL teachers, the teaching staff and the families? What impact has had this participation on CLIL implementation? • How does the school management team encourage new ideas, proposals and solutions? What do you do to ensure that there is coherence between what is done, the school's principles and new proposals?

5.4.3.4. Data Analysis

The process followed to analyse quantitative and qualitative data was different. Quantitative data, which was obtained through school management teams' questionnaire, was analysed with the software package SPSS 22. Once the data was included in the software, the reliability of the data was analysed through Cronbach's Alpha which was $\alpha=.904$. According to the establish parameters, the data is reliable and consistent when Alpha's values are equal or higher than .8 ($\alpha \geq .80$) (Cortina, 1993). After ensuring data reliability, it was analysed whether data was normally distributed through Shapiro-Wilk test. In general, all items were normally distributed. The outliers were identified and removed for the items that did not present a normal distribution. Once these adjustments were made, normality of distribution was ensured.

Quantitative data were analysed using descriptive and inferential statistics. With regard to descriptive statistics, the mean and standard deviation were calculated. As for inferential statistics, one of the statistical tests used was *Pearson's r* to correlate the results between two variables and explore whether there was a relationship between these two variables. For instance, the training contents were correlated. Another statistical test used was *Student t* or *t-test* to analyse possible significant differences between two means. For example, t-test was used to explore whether there were significant differences between the necessary training for a member of the school management team and their perceived training needs. On the other hand, *ANOVAs* were used to study any possible main effect of, for example, training needs or organisational change. *ANOVAs* were also used to study if causal relationships could be established between independent variables (school's ownership, school location, level of complexity, etc.) and dependent variables (training, training needs and organisational conditions).

As for **qualitative data**, all interviews were transcribed *verbatim* because the focus was on *what* school leaders said and not on *how* they said it. Once the interviews were transcribed, they were sent to the participants so that they could validate the transcription. Interviewees were given a week to make the suggestions and changes they considered necessary. No suggestion and modification were made for any of the interviews. Thus, once the transcription was validated, the interviews were analysed using the software NVivo 11. All the interviews were added to the software and were analysed, coded and categorised using the constant comparative model of Glaser and Strauss (1967). The interviews were read and, by constant comparison of ideas, codes (minimum unit with meaning) were assigned to the emergent ideas from the interviews. The data were simultaneously analysed and coded (Taylor & Bogdan, 1992). Note that the categorisation process of school management teams' interviews was done together with CLIL experts' interviews (study 4). Therefore, the process followed and the categories established were the same for both instruments.

Initially, the categorisation process was inductive. Once the first codes were created, they were related so as to group them into meaning categories; that is, those codes that referred to the same topic but addressed different aspects were put into the same category (Hernández-Sampieri et al., 2006). The organisation of codes under categories was done taking into consideration the aims of the PhD thesis and study 3: to identify teachers and school management teams' training needs for CLIL implementation, as well as to know the organisational conditions that favoured school-based CLIL implementation.

During the categorisation process, it was ensured that categories were selective; that is, that it was not possible that a same idea could be included in two different categories (Sandín, 2002; Taylor & Bogdan, 1992). Additionally, it was ensured that categories were exhaustive and that they covered all possible factors or relevant elements. Moreover, the categories were organised in such a way that reading them showed a narrative discourse. In some cases, both school management teams and CLIL experts referred to relevant aspects, but they were not strictly related to the research aims. For instance, some school leaders mentioned some activities carried out that were not related to the CLIL project. For this reason, it was decided not to include these topics in the categorisation process.

Even though, initially, the categorisation process was purely inductive, while the categories were built, a deductive approach was also used so as to ensure the coherence between the research objectives and the theoretical framework established. For example, only the ideas that were aligned with the definition of competence used in this doctoral dissertation were categorised as

competences. Therefore, despite mentioning *content knowledge* as a competence, content knowledge was not categorised under the competence category. With all these decisions in mind, the first version of the categorisation was done ([Appendix 12](#)). This first version was assessed by the thesis supervisor who acted as an external judge. From her comments, a new version of the categorisation was made. This process was repeated five more times in order to polish and adjust the categories and codes. Table 41 intends to show some of the changes made between the first and last version of the categorisation for the macrocategory ‘CLIL conceptualisation’.

Table 41. *Example of some of the modifications made between the different version of the categorisation process.*

Macrocategory: CLIL Conceptualisation	
Version 1	Final Version
1.1.Language Acquisition. 1.2.Translation into English. 1.3.Teaching and learning methodology. 1.4.Language integrated approach. 1.5.Integration of content and language.	1.1.Conceptualisation of CLIL from a language perspective. 1.2.Conceptualisation of CLIL from a methodological perspective. 1.3.Conceptualisation of CLIL from content and language integration perspective.

All the changes made during the different revisions are narrated and justified in [Appendix 13](#). Each time the categorisation was revised, the process became more deductive because the categories were contrasted with the theoretical framework to adjust them. The final version of the categories included 7 macrocategories with their corresponding categories and subcategories. These categories were defined within the framework of this doctoral thesis ([Appendix 14](#)). The final version of the categorisation is presented:

1. **CLIL CONCEPTUALISATION**
 - 1.1. **CLIL conceptualisation from a language perspective.**
 - 1.2. **CLIL conceptualisation from a methodological perspective.**
 - 1.3. **CLIL conceptualisation from a content and language integration perspective.**
2. **CLIL POTENTIALITIES**
 - 2.1. **Curricular potentialities.**
 - 2.2. **Positive effects on students’ learning.**
 - 2.3. **Democratisation of foreign language access.**
3. **CLIL OPPORTUNITIES**
 - 3.1. **Reflection on teachers’ practice and students’ needs.**
 - 3.2. **Transferring good practices to other scenarios.**
 - 3.3. **Improvement of students’ motivation.**
 - 3.4. **Teachers’ coordination.**
 - 3.5. **Participate in a project from the Educational Department.**
 - 3.6. **Teacher training.**
4. **CLIL TEACHER**
 - 4.1. **Language teacher.**
 - 4.2. **Content teacher.**

- 4.3. **Team-teaching.**
- 4.4. **Double specialist.**
- 4.5. **Variable profile depending on the educational stage.**
- 5. **TEACHER EDUCATION**
 - 5.1. **Teachers' competences as a reference for training.**
 - 5.1.1. *Self-reflection Competence.*
 - 5.1.2. *Assessment Competence.*
 - 5.1.3. *Materials Development Competence.*
 - 5.1.4. *Classroom Management Competence.*
 - 5.1.5. *Project Management Competence.*
 - 5.1.6. *Methodological Competence.*
 - 5.1.7. *Communicative Competence.*
 - 5.1.8. *Research Competence.*
 - 5.1.9. *Digital Competence.*
 - 5.1.10. *Coordination Competence.*
 - 5.1.11. *Ethical Commitment Competence.*
 - 5.1.12. *Intercultural Competence.*
 - 5.2. **CLIL Teachers' Requisites.**
 - 5.2.1. *Content knowledge as a requisite for CLIL teachers.*
 - 5.2.2. *CLIL theoretical underpinnings as a requisite for CLIL teachers.*
 - 5.2.3. *Language knowledge as a requisite for CLIL teachers.*
 - 5.2.4. *Methodology as a requisite for CLIL teachers.*
 - 5.3. **Teachers' training needs.**
 - 5.3.1. *Cause.*
 - 5.3.1.1. *Initial Teacher Education.*
 - 5.3.1.2. *Prescriptive need.*
 - 5.3.1.3. *Perceived need.*
 - 5.3.2. *Areas where training needs are identified.*
 - 5.3.2.1. *Language knowledge as a training need.*
 - 5.3.2.2. *Content knowledge as a training need.*
 - 5.3.2.3. *CLIL theoretical underpinnings as a training need.*
 - 5.3.2.4. *CLIL conceptualisation as a training need.*
 - 5.3.2.5. *Curricular training need.*
 - 5.3.2.6. *Organisational training needs.*
 - 5.3.3. *Comparably to other contexts.*
 - 5.3.3.1. *Comparable to other contexts.*
 - 5.3.3.2. *No comparable to other contexts.*
 - 5.4. **Level of CLIL training.**
 - 5.4.1. *CLIL training.*
 - 5.4.2. *Participating in CLIL training*
 - 5.4.3. *No CLIL training.*
 - 5.5. **Training conditions.**
 - 5.5.1. *Contextual variables.*
 - 5.5.2. *Personal variables.*
 - 5.6. **Moment of training.**
 - 5.6.1. *Before deciding to implement CLIL.*
 - 5.6.2. *Before starting the project.*
 - 5.6.3. *During the process.*
 - 5.6.4. *At the end.*
 - 5.7. **Training Modality.**
 - 5.7.1. *Face-to-face.*
 - 5.7.2. *School-based.*
 - 5.7.3. *Practical.*
 - 5.7.4. *Theory-based.*
 - 5.8. **Opinion about teachers' training for CLIL.**
 - 5.8.1. *Positive opinion about teachers' training for CLIL.*
 - 5.8.2. *Negative opinion about teachers' training for CLIL.*

- 5.9. Articulation of teachers and school management teams' training.**
 - 5.9.1. All together.
 - 5.9.2. Coordinated.
- 6. SCHOOL MANAGEMENT TEAMS' EDUCATION**
 - 6.1. School management teams' competences as a reference for training.**
 - 6.1.1. *Project Management as a competence for school leaders.*
 - 6.1.2. *Methodology as a competence for school leaders.*
 - 6.2. School management teams' requisites.**
 - 6.2.1. *CLIL theoretical underpinnings as a requisite for school management teams.*
 - 6.2.2. *CLIL conceptualisation as a requisite for school management teams.*
 - 6.3. School management teams' training needs.**
 - 6.3.1. *Causes.*
 - 6.3.1.1. *Prescriptive training needs for school management teams.*
 - 6.3.1.2. *Perceived training needs for school management teams.*
 - 6.3.1.3. *No previous training for school management teams.*
 - 6.3.2. *Areas where training needs are identified for school management teams.*
 - 6.3.2.1. *CLIL theoretical underpinnings as school management teams' training need.*
 - 6.3.2.2. *Curricular training needs for school management teams.*
 - 6.3.2.3. *Organisational training needs for school management teams.*
 - 6.3.2.4. *CLIL conceptualisation as school management teams' training need.*
 - 6.4. Moment of training for school management teams.**
 - 6.4.1. *Before starting the project for school management teams.*
 - 6.4.2. *During CLIL implementation for school management teams.*
 - 6.4.3. *At the end of the project for school management teams.*
 - 6.5. Training Modality for school management teams.**
 - 6.5.1. *School-based for school management teams.*
 - 6.5.2. *Practical for school management teams.*
 - 6.5.3. *Theory-based for school management teams.*
 - 6.6. Opinion about school management teams' training.**
 - 6.6.1. *Positive opinion about school management teams' training.*
 - 6.6.2. *Negative opinion about school management teams' training.*
- 7. ORGANISATIONAL CONDITIONS**
 - 7.1. Leadership**
 - 7.2. Needs Analysis**
 - 7.2.1. *Reasons to implement CLIL.*
 - 7.3. Planning**
 - 7.3.1. *Project's Adaptation. .*
 - 7.3.2. *People in charge of CLIL management.*
 - 7.4. Staff involvement and transfer to other scenarios.**
 - 7.5. Qualified teachers**
 - 7.5.1.1. *Measures to train the teaching staff.*
 - 7.5.1.2. *Measures to recruit teachers trained in the CLIL approach.*
 - 7.6. School modifications.**
 - 7.6.1. *Organisational modifications.*
 - 7.6.2. *Curricular modifications.*
 - 7.7. Coordination.**
 - 7.8. Evaluation.**
 - 7.8.1. *Projects' evaluation.*
 - 7.8.2. *Students' assessment.*
 - 7.9. Collaboration with other institutions.**
 - 7.10. Dissemination**

After validating the interviews categorisation, the codification of all interviews was revised in order to guarantee that there was coherence between what the participants said and the

assigned code, as Hernández-Sampieri et al. (2006) and Taylor and Bogdan (1992) recommend to ensure results validity.

Once the categorisation had been validated, not only the codes were analysed, but also the frequency of each code. Even though the aim of the semi-structured interviews was to comprehend the current CLIL situation in Catalonia, it was also aimed to identify what were the aspects that concerned participants the most. That is why it was calculated how many school management teams referred to each code during the interviews. Note that the numbers presented in the section will refer to the total number of school management teams that mentioned an idea and not the frequency with which an idea appeared (total number of times that the same idea is repeated in the interviews).

Additionally, the relationships between codes were studied with NVivo 11 option ‘compare codes’. This option enabled to compare whether two ideas occurred at the same time. For instance, if a particular conceptualisation of CLIL was linked to the identification of some training needs. The codes comparison was made with the aim to analyse whether specific opinions and perceptions could be explained by individual, contextual or institutional variables. These findings will be presented in the results chapter (see section 6.3).

5.4.4. Study 4: CLIL Experts’ Opinion

5.4.4.1. Methodological Design

Study 4 aimed to compare CLIL experts’ opinions with those of the different groups consulted about teachers and school management teams’ education for CLIL and organisational conditions to implement a CLIL project. Table 42 shows the relationship between the aims of this study and the objectives and hypotheses of the doctoral thesis.

Table 42. *Alignment between the specific objectives and hypotheses of the PhD and the objectives of study 4.*

Specific objectives of the PhD	Hypotheses of the PhD	Study 4 objectives
SO1: To explore Catalan teachers and school management teams’ perceived pedagogical and organisational training needs.	H1: CLIL teachers’ profile varies depending on CLIL conceptualisation and the context. H2: Teachers and school management teams perceive that they do not have enough pedagogical CLIL training to confront the demands of this approach.	SO1: To know CLIL experts’ perceptions about teachers and school management teams’ pedagogical and organisational training needs. SO2: To identify what profile should CLIL teachers have according to CLIL experts.

School-based Conditions and Teacher Education for CLIL Implementation

	H3: Teachers and School management teams believe that they do not have enough organisational training to implement CLIL projects.	
SO2: To know the competences and training requisites of CLIL teachers and school management teams.	H4: Language knowledge, content knowledge and methodological competence are considered essential requisites for CLIL teachers and, consequently, training has to address these requisites. H5: Leadership is a key competence of school management teams. H6: The most effective training modality for CLIL is that one that addresses teachers' training needs depending on the characteristics of the context.	SO3: To identify what competences should teachers and school management teams develop to implement a CLIL project according to the experts. SO4: To know what type of training would be more effective to train CLIL teachers and school management teams.
SO3: To identify the organisational conditions of primary schools that favour the implementation and sustainability of CLIL projects.	H7: The reason why primary schools decide to start a CLIL project and how CLIL is conceptualised determine how CLIL is implemented. H8: CLIL implementation and sustainability requires some organisational conditions being teacher collaboration one of the most prominent and the shortage of teachers qualified for CLIL its main barrier.	SO5: To identify the organisational conditions that favour CLIL implementation in Catalan primary schools according to the experts.
SO4: To analyse the concurrence between teachers and school management teams' perceptions with the inspectors, CLIL coordinators from the Education Department and CLIL experts' opinions.	H9: Teachers and school management teams concur in the key competences and knowledge for CLIL, but their perceptions in terms of current training needs vary.	SO6: To compare CLIL experts' opinions about CLIL training and organisational conditions with the perceptions of the other groups consulted.

The **qualitative methodological approach by stages** was used because the main aim was to know CLIL experts' opinion about teachers and school management teams' training for CLIL and

the organisational conditions in order to validate the results obtained in the three previous studies. The data collection instrument used was a semi-structured interview. All the questions asked relative to teacher education and organisational conditions started from the findings of the three previous studies (Table 43). A semi-structured interview was used because it allowed to orientate the interviewee’s answers towards the research aims, at the same time that the script was flexible enough to be adapted depending on participants’ answers.

Table 43. Example of how previous findings were used to design CLIL experts’ semi-structured interview.

Previous Results	Question																					
<table border="1"> <caption>CLIL Teacher: Current vs Ideal Scores</caption> <thead> <tr> <th>Category</th> <th>Current</th> <th>Ideal</th> </tr> </thead> <tbody> <tr> <td>Language</td> <td>3.4</td> <td>2.4</td> </tr> <tr> <td>Language_sup_content</td> <td>2.0</td> <td>3.1</td> </tr> <tr> <td>Content</td> <td>1.8</td> <td>1.8</td> </tr> <tr> <td>Content_sup_language</td> <td>1.9</td> <td>3.2</td> </tr> <tr> <td>Teamteaching</td> <td>2.5</td> <td>4.3</td> </tr> <tr> <td>Double specialist</td> <td>4.0</td> <td>4.0</td> </tr> </tbody> </table>	Category	Current	Ideal	Language	3.4	2.4	Language_sup_content	2.0	3.1	Content	1.8	1.8	Content_sup_language	1.9	3.2	Teamteaching	2.5	4.3	Double specialist	4.0	4.0	<p>In general, school management teams prefer that CLIL classroom implementation is the result of the close collaboration and planning of content and language teachers, followed by a double specialist. However, currently, the CLIL teacher tends to be the language teacher or a double specialist.</p> <p>Do you agree with school management teams’ opinion?</p>
Category	Current	Ideal																				
Language	3.4	2.4																				
Language_sup_content	2.0	3.1																				
Content	1.8	1.8																				
Content_sup_language	1.9	3.2																				
Teamteaching	2.5	4.3																				
Double specialist	4.0	4.0																				

The qualitative data was analysed using the **systemic design**. Following the constant comparative model of Glaser and Strauss (1967), qualitative data was revised and, through constant comparison, meaning categories and units were created. These categories were revised and modified several times in order to polish them. Likewise, the categories were organised in such a way that they had a narrative sense.

5.4.4.2. Participants

The participants of this study were 10 CLIL experts from the Spanish context. The selection of CLIL experts was limited to Spain because the characteristics of the educational systems and CLIL implementation tend to vary considerable between countries. Experts were selected taking into account some selection criteria. First, a CLIL expert was someone who had a wide experience in CLIL research or had been working for a long time with schools and teachers who had a CLIL project implemented. For this reason, the number and type of published papers were considered in order to select the experts, as well as their lines of research. Secondly, CLIL experts’ selection also included a geographical criterion. Participants had to be from different

autonomous communities in order to show a wider scenario. The selection of the communities intended to balance bilingual and monolingual regions. However, the CLIL experience and encouragement of each autonomous community were also considered. The communities initially selected were: Galicia, Basque Country, Madrid, Andalusia, Valencia and Catalonia. Thirdly, it was intended that experts' profile was divers; that is, CLIL experts that had worked on CLIL from a linguistic and teaching perspective were included. These selection was made based on their professional career and their publications. Additionally, people from the administration were also included in the initial selection of CLIL experts (Education inspector, people in charge of ongoing development). Table 44 shows the profile of the Spanish CLIL experts that met the criteria to be included in the study. Note that no CLIL experts were found that met the criteria and their field of expertise was educational organisation.

Table 44. *CLIL experts that met the inclusion criteria to participate in study 4.*

Participant	Autonomous Community	CLIL Publications	Lines of Research	
			Language	Teaching and Teacher education
1	Catalonia	Yes		X
2	Catalonia	Yes	X	X
3	Catalonia	Yes	X	
4	Catalonia	Yes		X
5	Catalonia	Yes		X
6	Valencia	Yes	X	X
7	Valencia	Yes		X
8	Andalusia	Yes	X	
9	Andalusia	Yes		X
10	Andalusia	Yes	X	X
11	Madrid	Yes	X	
12	Madrid	Yes	X	X
13	Madrid	Yes	X	
14	Basque Country	Yes	X	
15	Basque Country	Yes	X	
16	Basque Country	Yes	X	X
17	Galicia	Yes		X

The 17 experts that met the criteria were contacted through email. In the first email, they were explained what the aim of the doctoral thesis was and, more concretely, what the purpose of the interview was. Additionally, experts were told how the interview would be carried out, that it would be recorded and that their anonymity would be preserved, following the principles of Responsible Research and Innovation (RRI). Experts were also told that the findings would be used for academic purposes, such as this doctoral thesis or the publication of some papers. This

email was sent at the beginning of February, 2017. Out of these 17 experts, 10 accepted to participate in the study (Table 45). CLIL experts were from all the autonomous communities initially selected, except for Galicia. Nevertheless, there was a greater representation of Catalan experts in comparison to other communities. Moreover, the balance between bilingual and monolingual communities was not achieved since there were more experts from bilingual communities. However, there was a greater balance between CLIL experts' lines of research.

Table 45. *Characteristics of the experts participating in the semi-structured interviews.*

Autonomous Community	Bilingual/ Monolingual	Num. of participants	Area		
			Language	Teacher education	Administration
Andalusia	Monolingual	1		1X	
Catalonia	Bilingual	4	1X	1X	2X
Madrid	Monolingual	1	1X	1X	
Basque Country	Bilingual	2	2X		
Valencia	Bilingual	2	1X	1X	

The interviews were held between February and April 2017 depending on experts availability. The interviews were done through Skype, except for most Catalan experts who asked to do the interview face-to-face. One week before the interview, the interview script and a graphic document ([Appendix 15](#)) were sent to the interviewees so that experts could have time to analyse the results that were presented in a synthetic way with figures and tables. The interviews were recorded for their later transcription and analysis. The interviews lasted around 40 minutes on average.

5.4.4.3. Instrument

The data collection instrument used was a semi-structured interview for CLIL experts ([Appendix 15](#)) which aimed to compare the results obtained in the three previous studies with CLIL experts' perceptions. For this reason, the elaboration process of this interview was concurrent; that is, it was done once the data from previous studies had been obtained. Therefore, a **qualitative design by stages** was used (Hernández-Sampieri et al., 2006).

The interview was organised around four big areas, which were linked to the aims of the doctoral thesis: teacher education, competences, organisational conditions and general questions (Table 46). Each question or group of questions were linked to some of the previous findings obtained, as table 43 shows. A visual document with figures and tables was created in order to facilitate the understanding of previous findings. The figures and graphs showed the results that would be commented ([Appendix 15](#)). Even though the interview script and the

graphic document were sent a week in advance, it was decided to add a brief summary of the findings together with the questions in order to focus CLIL experts' attention on the results obtained (Table 47). A grid was created so that the PhD candidate could use it during the interviews (Appendix 16). This grid included the graphic or table given to the experts, a summary of the findings and the question to be asked.

Table 46. *Examples of the type of questions of CLIL experts' semi-structured interview.*

Area	Example of the type of questions
Teacher education	Are these training needs characteristic of CLIL teachers or CLIL implementation accentuates them and makes them more salient?
Competences	Do you think that content, language and CLIL theoretical underpinnings are competences or requisites for CLIL teachers?
Organisational Conditions	Do you think that implementing CLIL in a grade or in the whole primary stage has consequences on the type of changes carried out? How?
General questions	Currently, what are the main difficulties CLIL projects have? What are the main advantages or strengths of encouraging and sustaining CLIL projects?

The interview script was first written in Catalan. Several versions of the interview were done before the final version was obtained. Each version was validated by the PhD supervisor who acted as an external judge to ensure the validity of the instrument (Corral, 2009). The different version aimed to polish the questions so as to adjust them to the research aims. The final version included 18 questions and some of them had some subquestions in case the interviewee did not made reference to that aspect during the interview. The script and the graphic document were translated into Spanish because the interview was held with some experts that did not speak Catalan. Table 48 shows the number of questions per each objective of the study.

Table 47. *Example of the grid used by the PhD candidate during CLIL experts' interviews.*

Graphic				Summary and Question
Training needs	Initial teacher education	In-service teachers without CLIL experience	In-service teachers with CLIL experience	
Considerable	Language	Language	Language	<i>Pre-service teachers perceive they have considerable training needs for language and methodology. They also indicate that they need more training on classroom management, content knowledge, interschool collaboration, materials' development and collaboration.</i> 1. Are these training needs characteristic of CLIL teachers or CLIL implementation accentuates them and makes them more salient?
	Methodology	Methodology	Methodology	
Moderate	Classroom Management	Theoretical Underpinnings	Theoretical Underpinnings	
	Content	Project Management	Research	
	Interschool Collaboration		Assessment	
	Materials Development Collaboration	Materials Development	Materials Development	

The semi-structured interview was designed to delve into teacher education for CLIL, organisational conditions for CLIL implementation and the overall experts' opinion about CLIL current potentialities and barriers. In addition, the interview aimed to know if the findings obtained in the Catalan context were endemic or were common in other contexts.

Table 48. *Relationship between the objectives, dimensions studied and questions of the interview.*

OBJECTIVE	DIMENSION	QUESTIONS
Objective A: To know teacher and school management teams' education and training needs.	Teachers' training needs.	1, 2,
	CLIL teachers and school leaders' competences.	4, 5
	School management teams' training needs.	11
	Type of training	12, 13, 14
Objective B: To know the institutional conditions to implement a CLIL project.	Coordination, Participation and innovation.	7, 8, 9,15
Objective C: To know experts' overall perception of CLIL.	Evaluation of CLIL's current situation.	16, 17, 18
Objective D: To generalise the findings.	Generalisation of the results.	3,6, 10

5.4.4.4. Data Analysis

CLIL experts' semi-structured interviews were analysed qualitatively. The process followed to analyse the data was the same as for school leaders' semi-structured interviews ([see Data analysis of section 5.4.3.4](#)) since both interviews were analysed together.

Thus, following the same rationale as for school leaders' semi-structured interviews, CLIL experts' interviews were first transcribed *verbatim* and sent to the experts for validation. Most experts agreed with the transcription and recognised the ideas expressed. However, there was an expert who asked to delete some parts of the interviews in which she asked for clarification to the interviewer. Another expert wanted to modify her interview so as to avoid repetitions and reformulations of the same idea, something that is common in oral communication, but it is strange in a written transcript. All these changes were accepted because it was the interviewees' right to decide what they wanted to appear or not in their interviews.

As with school leaders' semi-structured interviews, the transcriptions were analysed with the software NVivo 11. The constant comparative model of the Grounded Theory (Glaser & Strauss, 1967) was used to code and categorise the interviews. Thus, the codes were created by the constant comparison of the ideas from the interviews. Then, the codes were grouped into

meaning categories. Although the process was purely inductive at the beginning, each time the categorisation was revised, the process became more deductive because the codes and categories were compared with the theoretical framework.

The codes and categories were organised in a way that they had a narrative sense, but also they were aligned with the doctoral thesis' objectives. It was ensured that categories and codes were selective, exhaustive and that they covered all possible factors or relevant elements. The final version of the categories included 7 macrocategories with their corresponding categories and subcategories. These categories were defined within the framework of this doctoral thesis ([Appendix 14](#)).

Once the categorisation had been validated, not only the codes were analysed, but also the frequency of each code. Even though the aim of the semi-structured interviews was to comprehend CLIL implementation and teacher education, it was also aimed to identify what were the aspects that concern participants the most. That is why it was calculated how many CLIL experts referred to each code during the interviews. Note that the numbers presented in the results will refer to the total number of experts that mentioned an idea and not the frequency with which an idea appeared (total number of times that the same idea is repeated in the interviews).

Additionally, the relationships between codes were studied with NVivo 11 option 'compare codes'. This option enabled to compare whether two ideas occurred at the same time. For instance, if a particular conceptualisation of CLIL was linked to the identification of some training needs. The codes comparison was made with the aim to analyse whether specific opinions and perceptions could be explained by individual, contextual or institutional variables. These findings will be presented in the results chapter (see section 6.4.).

5.5. Block II: Methodological Design of the Quasi-Experimental Study

5.5.1. Justification

The specific objective 5 of this doctoral thesis was **to design, implement and evaluate an initial CLIL teacher education proposal for primary teachers from the competences and training requisites identified**. This proposal was designed for the double degree of infant and primary education from the University of Barcelona so that student teachers could develop the associated competences to CLIL teaching and learning.

The starting point of this proposal was the revision of previous studies that focused on CLIL teachers' training needs and difficulties to implement CLIL in the school and in the classroom. In

addition, the findings obtained in studies 1 to 4 were also used. As indicated in chapter 4, CLIL teachers, independently of their experience, have training needs for language and content knowledge, CLIL theoretical underpinnings, as well as methodology, assessment, classroom management, materials development and collaboration (Di Martino & Di Sabato, 2012; Durán-Martínez & Beltrán-Llevador, 2017; Pappa et al., 2017; Pérez-Cañado, 2016c).

Previous studies, mainly focused on the analysis of in-service teachers' perceptions, together with the findings of this doctoral thesis, raised three questions:

1. Were these training needs exclusive of CLIL teachers or CLIL made them more evident?
2. Were these training needs related to the key teachers' competences identified by previous studies?
3. If so, was teacher education, both initial and ongoing development, giving an answer to competences development?

Research evidence, which was synthesised in chapter 4, seemed to indicate that CLIL teachers' training needs were closely linked to key teachers' competences (Table 49). Moreover, research evidence appeared to indicate that CLIL implementation made teachers more aware that using a traditional pedagogy or translating the contents to the additional language did not work when students did not master the target language (Banegas, 2012). Therefore, as a result of their teaching experience, CLIL teachers perceived that they should change their teaching practice, but they did not have the sufficient knowledge and resources to make this change (Pérez-Cañado, 2016c; Turner, 2015). Some of these training needs could be attributed to CLIL (e.g. evaluating content and language integratively without one delaying the other). However, other training needs seemed to indicate that teachers had not received enough training or, at least, training that helped them to apply the theoretical content to the classroom and face the new challenges (Durán-Martínez & Beltrán-Llevador, 2017; Morton, 2016; Pérez-Cañado, 2016c).

Even though most studies focused on in-service teachers, it was considered that some training needs had their origin in initial teacher education. That is, initial teacher education had not provided the sufficient knowledge, strategies and resources to teacher students to be able to apply these knowledge and strategies to their teaching practice. An example would be all the training needs related to methodological and classroom management competences. Independently of the language of instruction, all teachers should know how to manage a classroom considering students' individual differences and to create meaningful learning experiences.

Table 49. *Synthesis of teachers' key competences and CLIL teachers' training needs revised in chapter 4.*

Teachers' key competences	CLIL teachers' training needs
Pedagogical Competence	Methodology
Assessment	Assessment
Classroom management	Classroom management
Inclusion	Inclusion
Digital	Digital Resources
Materials and learning resources	Materials
Self-reflection	-
Communicative	-
Research and Innovation	-
Learning to Learn	-
Collaboration	Teacher collaboration Interschool collaboration
Leadership and Organisation	Organisational

Likewise, previous findings suggested that teachers did not consider language as the object and the means for learning (de Graaff, 2016). Indeed, some teachers tended to think that language learning was the responsibility of language teachers (Bovellan, 2014; Hüttner & Smit, 2014; Pappa et al., 2017). Therefore, evidences seemed to indicate that teacher education is not making teachers aware that language use and learning are intrinsic to any learning situation. Consequently, most in-service teachers had never planned language teaching and learning explicitly. Therefore, not only was language planning something new to them, but also teachers did not perceive it was their responsibility (Koopman et al., 2014; Lo, 2017b; Van Kampen, Meirink, Admiraal, & Berry, 2017).

Some decisions were made based on the revision of previous literature, but also considering the results obtained in studies 1 to 4. As for the first decision, it was not considered that it was enough to identify the institutional conditions and teacher education for CLIL implementation. It was aimed **to contribute to initial teacher education**. Second, **an initial teacher education proposal was designed** that intended to provide an answer to the identified needs. It was decided to focus on initial teacher education because, despite the relevance of ongoing development for updating and improving teachers' practice, it was believed that initial teacher education had to assure that teacher students achieved a certain competence level by the end of the degree.

On the other hand, it was decided that this proposal would be **the same for all teacher students**, independently of their future specialisation. This decision was made based on the training needs

identified. As already stated, most of these needs were general to any teacher and, consequently, all teacher students could benefit of this proposal. Additionally, previous studies had defended the idea that CLIL is not only about foreign language teaching, but a characteristics of good pedagogy (Nikula et al., 2016). Moreover, it was considered that this proposal had to address competences' development, as it is established in the European Higher Education Area (EHEA) (European Commission, 2018a). Therefore, it was necessary to identify CLIL teachers' competences and design a training proposal that allowed to develop them. Finally, it was decided to design this proposal for the **double degree of infant and primary education of the University of Barcelona** because these studies offered the possibility to teach in English. Additionally, the PhD candidate was a teacher of these studies. It was thought that, apart from working some contents theoretically and in practice, teacher students could experience CLIL and transfer these experiences to their own pedagogical practices in the classroom through vicarious learning.

It will be presented the designed proposal for the double degree of infant and primary education to develop CLIL teachers' competences. First it will be explained the process followed to create the competence map of this degree. Second, the design made to apply this competence map to the selected courses will be presented.

5.5.2. Proposal Design

The design of the intervention proposal had two main phases. The first phase aimed to design a competence map that established the competences and the competence level to be worked during the double degree of infant and primary education. Therefore, this first stage affected the whole degree. Once this map was created, the aim of the second phase was to implement this proposal to two courses. Next, it will be detailed the process followed in each of the design's phases.

5.5.2.1. Design of the Competence Map

It was necessary a training design that was framed within the competence-based approach (Council of Europe, 2009) to design a proposal for initial teacher education that offered knowledge, strategies and resources that allowed student teachers to overcome CLIL pedagogical and organisational challenges. The process followed to design the competence map for the double degree had the following phases:

1. Analysis of previous literature.
2. Competences' selection.
3. Definition of the selected competences.

4. Description of the competence levels.
5. Analysis of the double degree of infant and primary education curriculum.
6. Creation of a competence map.
7. Validation of the competence map.

Analysis of Previous Literature

The first step to elaborate the competence map consisted of a systematic review of previous research that had studied CLIL teachers' competences and training needs. For this reason, the process started with the search of those studies that could be included in the systematic review. The search was conducted during Spring 2016. Consequently, all published studies after this date were not considered for the elaboration of this competence map.

This search had language limitation since the studies that could be considered had to be published in English, Spanish or Catalan. The data bases used for the search were SCOPUS and ERIC (ProQuest). However, second search techniques were also used, such as hand search in the reference list of some studies. A log was used to organise all the information (Table 50). The keywords used to search the studies were: CLIL, competence; bilingual education; teacher education; knowledge; and, skills.

Inclusion criteria were established to decide whether a study was included in the systematic review:

1. The study had to clearly identify CLIL teachers' competences or it had to establish the content for CLIL teacher education from the identification of teachers' training needs. That is, it was not enough that a study identified the content for teacher education.
2. The study had to define each competence or training content for its later analysis. There were some studies that referred to the same competence using different names (e.g. methodological competence, planning competence or pedagogical competence). On the contrary, some studies used the same label to refer to different aspects. This was particularly the case of "language competence" since it was sometimes used to refer to language knowledge and others to communicative competence.
3. The study had to justify why those competences were selected.

36 eligible studies were obtained in the initial search. Once the inclusion criteria were applied, 20 studies fulfilled all requirements ([Appendix 17](#)). Most studies were discarded for two reasons: one the one hand, the studies only referred to the results of CLIL training. On the other hand,

some competences were presented but it was not justified why those competences were selected or the competences were not defined.

Table 50. Example of the log used to organise and analyse the studies.

Title	Year	Reference	Country/ Region	Identified Competences
<i>The CLIL teacher's Competences Grid</i>	2009	Bertaux, P., Coonan, C.M., Frigols, M.J., Mehisto, P. (2009): The CLIL teacher's Competences Grid. Common Constitution and Language Learning (CCLL) Comenius Network. Available at http://www.istitutoinsolera.gov.it/doc/Cliil/The%20CLIL%20Teacher's%20Competences%20Grid.pdf	Europe	Defining CLIL; Adopting an approach to CLILM Adapting CLIL to the local context; Linking the CLIL programme with school ethos; Articulating quality assurance measures for CLIL; Using BICS and CALP; Using the language of classroom management; using the language of teaching; Using the language of learning activities; defining a course; working with others to enhance student learning; Building constructive relationships with students.
<i>A scaffolding framework for CLIL teacher Education</i>	2010	Dafouz, E., Llinares, A., Morton, T. (2010). CLIL across contexts: A scaffolding framework for CLIL teacher Education. In U-Smit, B. Schiftner, C. Dalton-Puffer (Eds.) <i>Current Research on CLIL 3</i> . Vienna: Viewz.	Europe	Planning; students' needs; multi-modal; Curricular literacy; context and culture; cooperation and reflection; interaction and evaluation.
First steps in CLIL: Training the teacher	2011	Hillyard, S. (2011). First steps in CLIL: Training the teacher. <i>Latin American Journal of Content & Language Integrated Learning</i> , 4, 2, 1-12. DOI:10.5294/lacilil.2011.4.2.1 ISSN 2011-6721	Not specified	Language knowledge; Content knowledge; methodological competence.
Competences of teachers from Bilingual Schools Framework	2011	Lorenzo, F., Trujillo, F., Vez, J.M. (2011). <i>Educación Bilingüe. Integración de Contenidos y Segundas Lenguas</i> . Madrid: Editorial Síntesis.	Spain	Reflection and ongoing development; pedagogical competence; content and language knowledge; methodological competence; management competence; interpersonal competence; collaboration with colleagues and the environment.

This systematic review included 20 studies which had been published between 2001 and 2016 (Appendix 20). The characteristics of the studies are summarised in Table 51. Nine out of the 20 studies aimed to define CLIL teachers' competences, whereas the other studies were focused on analysing teacher education for CLIL teaching and learning (object of training, training needs...). However, some studies had a twofold aim: to identify CLIL teachers' competences and to analyse teacher training. 10 out of the 20 selected studies had been conducted in Spain, 8 in Europe and one in South America. Out of the eight European studies, four integrated different countries, three were conducted in Italy and one in United Kingdom.

Table 51. *Characteristics of the analysed studies.*

Study	Country/ Region	Aim: Competences	Aim: Teacher Education	Theoretical Study	Empirical Study
Alejo, R., Piquer-Píriz, A. (2010). CLIL Teacher Training in Extremadura: A Needs Analysis Perspective. A Lasagabaster & Y. Ruiz de Zarobe (Eds). <i>CLIL in Spain: Implementation, results and teacher training</i> (pp.219-242). Newcastle: Cambridge Scholars Publishing.	Spain		X		X
Ball, P., Lindsay, D. (2010). Teacher training for CLIL in the Basque Country: the case of the Ikastolas in search of parameters. En D. Lasagabaster & Y. Ruiz de Zarobe (Eds). <i>CLIL in Spain: Implementation, results and teacher training</i> (pp.162-187). Newcastle: Cambridge Scholars Publishing	Spain		X		X
Bertaux, P., Coonan, C.M., Frigols, M.J., Mehisto, P. (2009): <i>The CLIL teacher's Competences Grid. Common Constitution and Language Learning (CCLL)</i> Comenius Network.	Europe	X		X	
Cabezuelo-Gutiérrez, P., Fernández-Fernández, R. (2014). A case study on teacher training needs in the Madrid Bilingual Project. <i>Latin American Journal of Content and Language Integrated Learning</i> , 7(2), 50-70. DOI: 10.5294/laclil.2014.7.2.3	Spain		X		X
Coonan, C.M. (2009). CLIL in (language) teacher training. Presented at <i>Semlang Seminar CLIL Workshop</i> , Sèvres, France, July 2009	Italy		X	X	
Dafouz, E., Llinares, A., Morton, T. (2010). CLIL across contexts: A scaffolding framework for CLIL teacher Education. In U-Smit, B. Schiftner, C. Dalton-Puffer (Eds.) <i>Current Research on CLIL 3</i> . Vienna: Viewz.	Europe	X		X	
Escobar-Urmeneta, C. (2010) Pre-service CLIL teacher-education in Catalonia: expert and novice practitioners teaching and reflecting together. En D. Lasagabaster & Y. Ruiz de Zarobe (Eds). <i>CLIL in Spain: Implementation, results and teacher training</i> (pp. 188-218). Newcastle: Cambridge Scholars Publishing	Spain		X	X	
Halbach, A. (2010). From the classroom to University and Back: Teacher training for CLIL in Spain at the Universidad de Alcalá. En D. Lasagabaster & Y. Ruiz de Zarobe (Eds). <i>CLIL in Spain: Implementation, results and teacher training</i> (pp. 243-256). Newcastle: Cambridge Scholars Publishing	Spain		X	X	
Hillyard, S. (2011). First steps in CLIL: Training the teacher. <i>Latin American Journal of Content & Language Integrated Learning</i> , 4(2), 1-12. DOI:10.5294/laclil.2011.4.2.1 ISSN 2011-6721	Not specified	X		X	
Hunt, M. (2011). UK teachers' and learners' Experiences of CLIL Resulting from the EU-funded Project CLILT. <i>Latin American Journal of Content and Language Integrated Learning</i> , 4(1), 27-39.	UK		X	X	
Lorenzo, F., Trujillo, F., Vez, J.M. (2011). <i>Educación Bilingüe. Integración de Contenidos y Segundas Lenguas</i> . Madrid: Editorial Síntesis.	Spain	X		X	
Lucietto, S. (2008). A Model for Quality CLIL Provision. <i>International CLIL Research Journal</i> , 1(1).	Italy	X			X

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http://www.icri.eu/11/article7.html					
Marsh, D., Mehisto, P., Wolff, D., Frigols-Martín, M.J. (2010). <i>European Framework for CLIL Teacher Education. A framework for the professional development of CLIL teachers</i> . European Centre for Modern Languages. Council of Europe.	Europe	X		X	
MIF anglès (2016). <i>La Formació Inicial de Mestres a Catalunya en relació a l'Anglès: Estat de la Qüestió i Propostes de Futur</i> . Barcelona: Programa de Millora i Innovació en la Formació de Mestres.	Catalonia		X	X	
Pavón-Vázquez, V. & Ellison, M. (2013). Examining teachers' roles and competences in content and language integrated learning (CLIL). <i>Linguarum Arena</i> , 4, 65-78.	Spain	X		X	
Pavesi, M., Bertocchi, D., Hofmanová, M. & Kasianka, M. (2001). Teaching through a foreign language: a guide for teachers and schools to using Foreign Language in Content Teaching, [32p.] In D. Langé (Ed.), <i>Insegnare in una lingua straniera. Unterrichten durch eine Fremdsprache. Teaching through a foreign language. Enseñar en una lengua extranjera. Enseigner dans une langue vivante</i> . Milan: M.I.U.R., Direzione Generale della Lombardia on behalf of TIE-CLIL. Retrieved from http://www.ub.es/filoan/CLIL/teachers.pdf	Italy		X	X	
Pérez-Cañado, M.L. (2016). Teacher training needs for bilingual education: in-service teacher perceptions. <i>International Journal of Bilingual Education and Bilingualism</i> , 19(3), 266-295. DOI:10.1080/13670050.2014.980778	Europe		X		X
Pistorio, M.I. (2009). Teacher training and Competences for Effective CLIL Teaching in Argentina. <i>Latin American Journal of Content & Language Integrated Learning</i> , 2(2), 37-43, DOI:10.5294/laclil.2009.2.2.14	Argentina	X	X	X	
Pons-Seguí, L. (2015). <i>How well-trained are pre-service teachers to instruct CLIL? A needs analysis from stakeholders' perspective</i> . Master thesis: Universitat de Barcelona (unpublished document)	Spain	X	X		X
Salaberrí-Ramiro, M.S. (2010). Teacher Training Programmes for CLIL in Andalusia. En D. Lasagabaster & Y. Ruiz de Zarobe (Eds.) <i>CLIL in Spain: Implementation, Results and Teacher Training</i> (pp. 140-161). Newcastle: Cambridge Scholars publishing.	Spain		X	X	

It is not arbitrary that half of the studies were conducted in Spain and that almost all studies were from Europe. CLIL has its origin in Europe, although it has surpassed its borders. Indeed, the equivalent of CLIL in the United States and Canada is Content-Based Instruction (CBI). On the other hand, CLIL teacher education and teachers' needs is a field of research that has been mainly studied in Spain (Cenoz, 2013; Dalton-Puffer et al., 2014; Pérez-Cañado, 2012).

Process of Competences' Selection

A qualitative approach was adopted to analyse and compare the results obtained in the different studies. Concretely, the **descriptive-interpretative approach** was used. This approach allowed to analyse both descriptive or phenomenological information and interpretative or hermeneutics (Timulak, 2009). This approach established the following steps:

1. The data was classified into categories and units.
2. The meaning units were delineated.
3. The categories were generated by the constant comparison of meaning units.
4. The main findings were abstracted.

The first step was to identify CLIL teachers' competences described in each study. These competences constituted the meaning units; that is, the minimum unit with meaning. The second step was to compare and align the competences identified in the different studies. This comparison was made using the definitions and descriptions made of each competence since different terms were used to refer to the same domain, as well as the same term was used to refer to different domains. For instance, 'language competence' was sometimes used to mention language knowledge and others to refer to communicative competence. For this reason, the definition offered in each study was used to know whether this meaning unit was categorised as knowledge or competence. Third, categories were created by the constant comparison of meaning units created in step 1. However, some changes were made in relation to the competences mentioned in the studies. In this way, several studies categorised content knowledge, language knowledge, learning theories and second language acquisition theories as competences. Nevertheless, if the definition of competence adopted in this doctoral thesis³¹ was considered, knowledge could not be considered as a competence, but as a necessary requisite to be competent. For this reason, and due to the fact that these requisites were repeatedly mentioned, they were included, but requisites and competences were distinguished. Once the meaning categories and meaning units were created, the frequency of each competence was calculated; that is, how many studies mentioned a given competence (Table 52).

The results of the initial categorisation revealed that the analysed studies referred to 13 competences and 3 requisites (Table 52). Since previous literature recommended that the number of competences was not large and that competences were meaningful (Perrenoud, 2004b; Tardif, 2008), the identified competences were revised so as to integrate them and reduce their number. Those competences that were close to each other were analysed, such as organisational competence, project management, CLIL policies and interschool collaboration. These four competences were integrated within the label 'CLIL project Management Competence' because these four competences referred to organisational aspects. However, the limitation of this integration was that such a broad competence could difficult its development during teacher education. Additionally, this competence could be considered as a collective

³¹ A competence is a person's ability to mobilise and integrate knowledge, procedures and attitudes rapidly, adequately and creatively to solve complex situations in a given context.

competence rather than a person's competence. Nevertheless, it was decided to maintain CLIL Project Management as an individual competence because, although organisational aspects are the responsibility of all the education community, each teacher has to be competent to actively participate in the organisation.

Table 52. *Identified competences and requisites in the qualitative analysis.*

Competence	Frequency
Methodological Competence	20
Communicative Competence	13
Classroom Management Competence	9
Assessment Competence	8
Organisational Competence	8
Self-reflection Competence	8
Material Development Competence	7
CLIL Policies Competence	5
Research and Innovation Competence	4
CLIL Project Management	3
Interschool Collaboration Competence	2
Inclusion Competence	2
Digital Competence	2
Requisites	Frequency
Content knowledge	11
Language knowledge	8
Theoretical Underpinnings	5

Material development competence and digital competence were also revised. This revision showed that some aspects of digital competence were included within material development one because studies referred to digital competence as the ability to use ICT as a resource for CLIL teaching and learning. Therefore, it was decided to integrate material development competence and digital competence in one label "material and learning resources competence". In the same line, it was revised how inclusion competence had been defined. This revision showed that inclusion competence was partially included within methodological and classroom management competences. For this reason, it was decided to integrate inclusion within the two aforementioned competences.

Even though digital and inclusion competences had been mentioned by a few studies, the revision did not aim to eliminate those competences that had been referred the least because it was not considered that a competence was less relevant if it had been less mentioned. However, it was aimed to avoid that two competences encompass the same aspects; that is, that they referred to similar aspects. Having said that, one of the characteristics of competences is that

they overlap, the development of a competence is nourished by the others. Therefore, although the selected competences and definitions aimed to show the different domains of a CLIL teacher, the truth is that the integration of all these domains is what can lead to a good teaching practice.

After the revision of the initial selected competences, the competences identified for a CLIL teacher were the following ones:

- Self-reflection competence.
- Communicative competence.
- Methodological competence.
- Assessment competence.
- Classroom management competence.
- Materials and learning resources competence.
- CLIL project management competence.
- Research and innovation competence.

Together with the following requisites:

- Content knowledge.
- Language knowledge.
- Theoretical underpinnings.

These competences and requisites were defined within the framework of this doctoral thesis. The definition will be presented in the following subsection.

Competences and Requisites Definition

The competences and requisites were defined considering the theoretical framework used to develop this doctoral thesis. Therefore, the definition of these competences and requisites intended to integrate some of the ideas previous research had stressed. Nevertheless, it was ensured that the definitions made clear the distinction between competences and requisites (necessary knowledge to be competent). Table 53 presents the definition of CLIL teachers' competences and requisites.

Table 53. *Definition of CLIL teachers' competences and requisites.*

Requisites	
Language knowledge.	It is the mastery of the additional language used for CLIL teaching and learning. That is, the mastery of language skills (reading, writing, speaking, listening and interaction), the adequate, correct and coherent use of language, a vast knowledge of vocabulary and grammar.
Content knowledge.	It is the command of teaching and learning content, as well as the practices associated to the discipline. Content knowledge also implies knowing what students have to learn and how they have to represent that knowledge.
Theoretical underpinnings.	It is the knowledge and mastery of psychological and pedagogical theories that sustain and explain the teaching and learning process, as well as the specific didactics of each discipline, content and language integrated learning and second language acquisition.
Competences	
Self-reflection competence.	It is the ability to explore and analyse the own beliefs about the teaching and learning process, in general, and, in particular, about content and language integrated learning. In addition, self-reflection competence refers to the ability to analyse and assess the own teaching practice to self-regulate the own practice and to identify the areas of improvement and training needs, as well as good practices.
Communicative competence.	It is the ability to adapt and scaffold the additional language used for CLIL to the teaching and learning context, students' needs and characteristics, as well as the project's aims and the learning outcomes in order to foster students' comprehension and language use in order to learn both the content and language.
Methodological Competence.	It is the ability to plan, implement and assess curricular proposals that integrate content and language, as well as consider students' individual needs. Planning implies the selection of content and language aimed to be worked, establishing the learning outcomes, learning and assessment activities, as well as assessment criteria and the methodology. All these elements have to be adjusted to the characteristics of the context, the school, students, content and CLIL approach. Implementing implies realising the planning in the classroom in order to encourage content and language learning. Finally, assessment has to allow identifying the level of attainment of the learning outcomes in order to make future decisions.
Assessment competence.	It is the ability to collect information about students' learning processes to assess the level of attainment of the learning outcomes relative to content and language. For this, it is necessary to establish assessment criteria, selecting and establishing the assessment strategies and tools that will allow to assess students'

	level of attainment. This analysis has to lead to making informed decisions about teaching and learning. Assessment competence also implies involving the students in the assessment process, as well as informing them about their learning process.
Materials and learning resources competence.	It is the ability to select the materials and learning resources that have to allow students to learn content and language. This implies establishing some criteria to access, adapt and design learning materials that have to favour students active participation in their learning process and assess the relevance of these materials and resources according to the learning outcomes to be attained.
Classroom management competence.	It is the ability to use several organisational dynamics and strategies to manage the classroom and students to foster students' learning, as well as their interaction and communication. Additionally, this competence implies analysing classroom dynamics and creating opportunities for incidental learning and intrinsic motivation considering students' individual differences.
Research and innovation competence	It is the ability to identify the aspects in which the teaching practice has to improve and offer creative solutions to these problems. Decisions should be based on previous evidences, especially the ones relative to content and language integrated learning.
CLIL project management competence	It is the ability to adapt the CLIL project to the characteristics and needs of the context, school and students, as well as integrating the project within the official curriculum and the school's educational project. It also implies establishing the parameters that will be used to evaluate the project. For this, it is necessary to create the necessary conditions to involve the educational community (teaching staff, students, families, educational stakeholders...) to develop the project so as to build up shared knowledge that will sustain the project. This competence also implies the ability to establish the parameters to manage the project at the school level: the roles, the project's aims, coordination, collaboration, teamwork, project development, selection and integration of curricular content, integration of curricular languages.

Note that the term methodology is understood and defined in a broad sense, following English-speaking tradition of using the term methodology to refer to pedagogy and didactics. Therefore, within the context of this doctoral thesis, methodology goes further than the teaching and learning methods and strategies. However, some of the analysed studies only used the term methodology to refer to the methods, whereas others used methodology as a synonym of pedagogy.

The selected competences were related to the key competences previous literature had identified for teachers (Table 54). This process was done to check the credibility of the selected competences (Guba & Lincoln, 1985); that is, whether the proposed competences had theoretical validity (Sandín Esteban, 2000).

Table 54. *Comparison of key teachers' competences, foreign language teachers' competences and the identified competences in this study* (duplicate of table 16).

CLIL Teachers' Competences (identified in this PhD)	Teachers' Key Competences (revision of previous literature)	Foreign Language Teachers' Competences (revision of previous literature)
Methodological Competence	Methodological Competence Inclusion Competence	Methodological Competence Inclusion Competence
Communicative Competence	Communicative Competence	-
Classroom Management Competence	Classroom Management Competence Inclusion Competence	Classroom Management Competence Inclusion Competence
Assessment Competence	Assessment Competence	Assessment Competence
Self-reflection Competence	Self-reflection Competence Learning to Learn Competence	Self-reflection Competence Learning to Learn Competence
Material and Learning Resources Development Competence	Materials competence Digital Competence	Materials Competence Digital Competence
Research and Innovation	Research and Innovation Competence	Research and Innovation Competence
CLIL Project Management Competence	Collaborative Competence Leadership and Organisation Competence	Collaborative Competence Leadership and Organisation Competence
Requisites		
Content knowledge	Content knowledge	-
Language knowledge	-	Language knowledge
Theoretical Underpinnings	Pedagogical content knowledge	Pedagogical language knowledge

Once CLIL teachers' competence and requisites had been selected and defined, the levels of competence development were also established. It was decided to define these levels for different reasons. First, as it has been explained in the theoretical framework, being competent is not dichotomous, it is a lifelong process that, in the case of teacher's competences, starts in initial teacher education and continues during the professional career. Second, the findings from previous research suggest that CLIL teachers have considerable training needs which could be caused by the initial teacher education received. Consequently, it was considered that it should be determined the desired competence level that teacher students should achieve by the end of

the degree. This desired level should orientate the pedagogical practices applied during pre-service education.

Scaffolding competences in competence levels was done for the double degree of infant and primary education of the University of Barcelona. Three levels were established: basic, intermediate and expert. These three levels were selected because competence development is a gradual and slow process. Additionally, it could be assured that most of the competences could be sequenced in these three levels during the degree. Moreover, it was believed that these three levels illustrated teacher students' progress from their entrance to the studies until their graduation. In general, the basic level implied having a general knowledge about the aspects and dimensions that each competence included and becoming aware of these dimensions. The intermediate level implied applying some knowledge in practice to solve guided problems and contexts. Finally, the expert level implied using the acquired knowledge to solve educational situations autonomously.

Ideally, competences should be worked from a basic level at the beginning of the degree and, progressively, move on an expert level. Competences' scaffolding aimed to guide teacher trainers practice to address competences development. Moreover, these levels could help student teachers to become aware of where they were and what actions they should undertake to progress.

Table 55 shows the descriptors per each competence and requisite for each level of attainment.

Table 55. *Descriptors for each competence and requisite's level.*

REQUISITES	LEVEL OF DEVELOPMENT		
	BASIC	INTERMEDIATE	EXPERT
<p>Language knowledge³²: It is the mastery of the additional language used for CLIL teaching and learning. That is, the mastery of language skills (reading, writing, speaking, listening and interaction), the adequate, correct and coherent use of language, a vast knowledge of vocabulary and grammar.</p>	<ul style="list-style-type: none"> ·To understand the main ideas of written and oral texts about educational topics in an additional language. ·To produce oral and written simple texts about education in an additional language. ·To describe, explain and justify educational topics in an additional language. 	<ul style="list-style-type: none"> ·To comprehend the main ideas of written and oral complex texts about educational topics in an additional language. ·To produce clear and detailed oral and written texts in which the own opinion about an educational topic is expressed. ·To express fluently and clearly, an opinion about an educational topic in an additional language. 	<ul style="list-style-type: none"> ·To comprehend long and complex oral and written texts, and their implicit meaning, about educational topics in an additional language. ·To produce clear, structured and detailed oral and written texts about educational topics, showing a high proficiency in the additional language. ·To use the additional language fluently and spontaneously to express, exchange and justify ideas about education.
<p>Content knowledge: It is the command of teaching and learning content, as well as the practices associated to the discipline. Content knowledge also implies knowing what students have to learn and how they have to represent that knowledge.</p>	<ul style="list-style-type: none"> ·To identify the learning content to be worked. ·To think of different strategies that foster content acquisition. ·To have a general knowledge of the content areas. 	<ul style="list-style-type: none"> ·To identify the adequate content for learning depending on students' characteristics. ·To analyse diverse strategies and select the most appropriate one to foster students' learning. ·To have a general knowledge of the content areas, being aware of the peculiarities of each area regarding the common practices, contents, procedures and values. 	<ul style="list-style-type: none"> ·To select the adequate content for learning for students and identify the difficulties they could have. ·To use different teaching and learning strategies to teach the content and use the most suitable for content characteristics and students' needs. ·To have a sound knowledge of the content areas and their peculiarities in terms of content, procedures and values.

³²Scaffolding based on Common European Framework of Reference.

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<p>Theoretical underpinnings: It is the knowledge and mastery of psychological and pedagogical theories that support and explain the teaching and learning process, as well as the specific didactics of each discipline, content and language integrated learning and second language acquisition.</p>	<ul style="list-style-type: none"> ·To define CLIL and its main characteristics. ·To identify the pedagogical underpinnings beyond curricular integration. ·To know the theories of second language acquisition that sustain CLIL and language integrated curriculum. ·To identify the main CLIL benefits and challenges in relation to other second language approaches. ·To know the main learning theories. 	<ul style="list-style-type: none"> ·To define CLIL and the main acceptations of the term. ·To analyse the practical implication of the pedagogical underpinnings beyond CLIL. ·To analyse the characteristics of learning theories and second language theories to infer their practical implications. ·To think of possible solutions for CLIL challenges and foster its benefits. 	<ul style="list-style-type: none"> ·To define CLIL and analyse their peculiarities and differences in relation to other integrative approaches of second language learning. ·To reflect on and select the CLIL acceptance that is aimed to be used through the analysis of pedagogical and second language theories. ·To design CLIL practices from the knowledge of the theories that are beyond this approach. ·To provide an answer to some of CLIL current challenges from the theoretical underpinnings beyond this approach.
COMPETENCES	LEVEL OF DEVELOPMENT		
	BASIC	INTERMEDIATE	EXPERT
<p>1. Self-reflection Competence: It is the ability to explore and analyse the own beliefs about the teaching and learning process, in general, and, in particularly, about content and language integrated learning. In addition, self-reflection competence refers to the ability to analyse and assess the own teaching practice to self-regulate the own practice and identify the areas of improvement and training needs, as well as good practices.</p>	<ul style="list-style-type: none"> ·To identify and reflect on the own beliefs about teaching and learning. ·To recognise and reflect on the own beliefs about content and language integrated learning. ·To explore and reflect on the own characteristics as a teacher, the potentialities and the areas of improvement. 	<ul style="list-style-type: none"> ·To analyse and reflect on the origin and causes of the own beliefs about teaching and learning. ·To analyse the causes of the own beliefs about content and language integrated learning. ·To identify and reflect on the own characteristics as a teacher and how these characteristics are transferred to the teaching practice. ·To plan how to maintain the strengths and work the areas of improvement. 	<ul style="list-style-type: none"> ·To identify, analyse and reflect on the origin of the own beliefs and the theoretical principles that sustain these beliefs about teaching and learning. ·To analyse and reflect on the origin of the own beliefs and the theoretical principles that sustain the beliefs about content and language integrated learning. ·To analyse and assess the own teaching practice, the strengths and areas of improvement, as well as the good practices. ·To plan the own ongoing

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			development.
<p>2. Communicative Competence: It is the ability to adapt and scaffold the additional language used for CLIL to the teaching and learning context, students' needs and characteristics, as well as the project's aims and the learning outcomes in order to foster students' comprehension and language use to learn both the content and language.</p>	<ul style="list-style-type: none"> ·To identify the language that is aimed to be worked in a topic. ·To analyse and reflect on how language work is aimed to be planned. ·To identify different approaches to work language. ·To identify the key terms and structures that should be worked to foster students' content understanding. ·To plan the language that is aimed to be worked in a given unit. 	<ul style="list-style-type: none"> ·To select the language that is aimed to be worked in a topic, term and course. ·To sequence language learning throughout a unit. ·To identify and analyse the strengths and weaknesses of the different approaches to work the language. ·To explore and identify the discourse aspects that could difficult students' content understanding. ·To plan the use of different strategies to foster students' understanding and use of the foreign language. 	<ul style="list-style-type: none"> ·To select the language that is aimed to be worked in a stage, cycle, course and topic. ·To sequence and scaffold language work depending on students' characteristics and the topic worked. ·To analyse and select the approach that will be used to foster second language acquisition. ·To adapt the oral and written messages to students' characteristics and needs. ·To use different strategies to foster students' understanding and use of the foreign language.
<p>3. Methodological Competence: It is the ability to plan, implement and assess curricular proposals that integrate content and language, as well as consider students' individual needs. Planning implies the selection of content and language aimed to be worked, establishing the learning outcomes, learning and assessment activities, as well as assessment criteria and the methodology. All these elements have to be adjusted to the characteristics of the context, the school, students, content and CLIL</p>	<ul style="list-style-type: none"> ·To plan teaching and learning proposals that integrate content and learning. ·To identify and align the competences, learning outcomes, content, activities and assessment. ·To identify the methodological approach that will favour the attainment of learning outcomes and competences' development. ·To explore what strategies will favour that students build up the content. ·To propose some strategies that will foster the learning of all 	<ul style="list-style-type: none"> ·To plan, implement and evaluate teaching and learning proposals that integrate content and language. ·To identify and align the competences, learning outcomes, content, activities and assessment within a global and integrative approach. ·To identify and analyse different methodologies to select the most adequate for students to achieve the learning outcomes and competences' development. ·To use and evaluate the strategies 	<ul style="list-style-type: none"> ·To plan, implement and evaluate teaching and learning proposals that integrate content and language, as well as infer good practices that favour learning in CLIL contexts. ·To identify and align the competences, learning outcomes, content, activities and assessment within a global and integrative approach that recognises students' needs and context characteristics. ·To analyse the possibilities of integrative methodologies to decide which one will favour

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<p>approach. Implementing implies realising the planning in the classroom in order to encourage content and language learning. Finally, assessment has to allow identifying the level of attainment of the learning outcomes in order to make future decisions.</p>	<p>students. ·To establish the assessment system that has to allow to identify students' learning.</p>	<p>that allow students to build up knowledge. ·To recognised and support students' individual differences. ·To establish the assessment system and how the collected information will be analysed to identify students' learning.</p>	<p>students' learning. ·To identify and analyse good practices that use strategies that foster students' construction of knowledge. ·To plan different actions to support students' individual differences. ·To establish an assessment system to analyse the collected data, to identify students' learning and make informed decisions.</p>
<p>4-Assessment Competence: It is the ability to collect information about students' learning processes to assess the level of attainment of the learning outcomes relative to content and language. For this, it is necessary to establish assessment criteria, selecting and establishing the assessment strategies and tools that will allow to assess students' level of attainment. This analysis has to lead to making informed decisions about teaching and learning. Assessment competence also implies involving the students in the assessment process, as well as informing them about their learning process.</p>	<p>·To identify content and language learning outcomes aimed to be assessed. ·To decide the strategies and tools that will be used to assess the learning outcomes. ·To propose an assessment system that allows to identify content learning without being delayed by language knowledge. ·To establish a mechanism to assess the teaching practice.</p>	<p>To establish content and language learning outcomes aimed to be assessed. ·To use assessment strategies and tools to foster students' participation in the assessment process, at the same time that the strategies and tools allow to identify students' learning. ·To use an assessment system that allows to identify content learning without being delayed by language knowledge. ·To analyse the information obtained through the assessment process. ·To assess the own teaching practice and the results obtained.</p>	<p>·To assess content and language learning outcomes. ·To use assessment practices that encourage students' self-regulation and identify students' learning. ·To use an assessment system that allows to identify content learning without being delayed by language knowledge. ·To make decisions based on the information collected through the assessment process. ·To assess the own teaching practice to self-regulate it. ·To analyse and infer the common aspects between good CLIL assessment practices.</p>
<p>5. Materials and learning resources: It is the ability to select the materials and learning resources that have to allow</p>	<p>·To establish some criteria to search and select materials for CLIL teaching and learning. ·To identify sources where valuable</p>	<p>·To establish the criteria to select and adapt the learning resources for CLIL teaching and learning. ·To adapt the learning resources to</p>	<p>·To establish the criteria that has to allow to develop materials for a CLIL approach. ·To adapt and create materials that</p>

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<p>students to learn content and language. This implies establishing some criteria to access, adapt and design learning materials that have to favour students active participation in their learning process and assess the relevance of these materials and resources depending on the learning outcomes to be attained.</p>	<p>resources for CLIL teaching and learning can be obtained.</p> <ul style="list-style-type: none"> ·To value the use of ICT to support content and language integrated learning. ·To assess the selected material in terms of the possibility to work content and language integratively, at the same time that they foster students' cognitive development. ·To sequence learning activities to work the different contents progressively. ·To identify the areas in which it will be necessary to search extra material to reinforce or expand content. 	<p>students' needs and the characteristics of the content and language worked.</p> <ul style="list-style-type: none"> ·To use ICT for content and language integrated learning. ·To adapt the material in order to make it cognitively and linguistically appropriate for students and learning outcomes. ·To sequence learning activities and assess their adequacy. ·To look for extra material to reinforce and expand content. 	<p>allow acquiring content and language, as well as to make them cognitively demanding.</p> <ul style="list-style-type: none"> ·To design and use materials that are cognitively and linguistically appropriate for students and learning outcomes. ·To integrate the use of ICT for content and language integrated learning. ·To assess learning materials identifying their strengths and limitations. ·To create extra material that allows to address students' individual needs.
<p>6. Classroom Management Competence: It is the ability to use several organisational dynamics and strategies to manage the classroom and students to foster students' learning, as well as their interaction and communication. Additionally, this competence implies analysing classroom dynamics and creating opportunities for incidental learning and intrinsic motivation considering students' individual differences.</p>	<ul style="list-style-type: none"> ·To identify and analyse different strategies to manage communication, collaborative learning, group management, giving instructions and analyse classroom dynamics. ·To identify and analyse different strategies that allow to address students' individual differences for language, content and learning and social skills. ·To identify strategies to encourage students' participation. 	<ul style="list-style-type: none"> ·To select the strategies that will be used to manage communication, collaborative learning, group management, giving instructions and analysing classroom dynamics. ·To decide the strategies that will be used to address students' individual differences for language, content and learning and social skills. ·To plan learning environments that foster students' participation. 	<ul style="list-style-type: none"> ·To use and assess different classroom management strategies that foster communication and collaborative learning. ·To apply and assess strategies that allow to manage the group, giving instruction and analyse classroom dynamics. ·To apply classroom management strategies that allow to address students' individual differences for language, content, social and learning skills. ·To analyse and infer the common characteristics of classroom management good practices.

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<p>7. Research and Innovation: It is the ability to identify the aspects in which the teaching practice has to improve and offer creative solutions to these problems. Decisions should be based on previous evidences, especially the ones relative to content and language integrated learning.</p>	<ul style="list-style-type: none"> ·To recognise the need of change and to provide creative solutions to current educational challenges. ·To identify trustworthy sources to obtain information about CLIL research. ·To search information relative to CLIL teaching and learning. ·To identify the current evidences obtained in CLIL research. 	<ul style="list-style-type: none"> ·To propose innovation that address some current educational challenges. ·To look for information relative to CLIL research. ·To identify the main results of CLIL research. ·To identify good CLIL practices and their main common aspects. 	<ul style="list-style-type: none"> ·To design innovations that address some current educational challenges, but also adjusted to the context and students' needs. ·To analyse critically the information received from research and innovation. ·To identify future challenges and needs. ·To establish communication channels with institutions involved in CLIL. ·To disseminate the results from CLIL implementation in the school.
<p>8. CLIL Project Management Competence: It is the ability to adapt the CLIL project to the characteristics and needs of the context, school and students, as well as integrating the project within the official curriculum and the school's educational project. It also implies establishing the parameters that will be used to evaluate the project. For this, it is necessary to create the necessary conditions to involve the educational community (teaching staff, students, families, educational stakeholders...) to develop the project so as to build up shared knowledge that will sustain the</p>	<ul style="list-style-type: none"> ·To identify what contextual and learning aspects should be considered before implementing CLIL. ·To identify what internal and external agents can support the design and implementation of a CLIL project and what role they can have. ·To analyse the mechanisms used in education projects to involve the educational community. ·To identify and assess different mechanisms to favour teachers' coordination, but also the coordination between the stakeholders and institutions involved in CLIL. 	<ul style="list-style-type: none"> ·To analyse the strengths and weaknesses of the different strategies to involve the educational community in the development of an innovation. ·To decide what organisational changes have to be made to implement a CLIL project. ·To analyse different strategies to cooperate with educational stakeholders and the teaching staff. ·To explore what educational stakeholders can offer to the project. ·To search different channels to share the knowledge between the educational community. ·To decide what approach is more 	<ul style="list-style-type: none"> ·To analyse and define what challenges and barriers will difficult CLIL implementation in the school and the potential solutions. ·To involve the educational community in the development of the CLIL project establishing the goals, their roles and the communication channels. ·To adapt the project to the school characteristics, curricular demands and students' needs and establish the project's aims. ·To plan the steps that have to be carried out to implement a CLIL project. ·To create the organisational conditions that will favour

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<p>project. This competence also implies the ability to establish the parameters to manage the project at the school level: the roles, the project's aims, coordination, collaboration, teamwork, project development, selection and integration of curricular content, integration of curricular languages.</p>	<ul style="list-style-type: none"> ·To analyse the CLIL approach that can be selected and what the best option is depending on the school's characteristics. ·To reflect on the organisational and curricular implications that CLIL implementation will have. ·To explore the aspects to be considered to adapt an innovation project to the educational and contextual characteristics of a school. ·To search and propose different mechanisms to evaluate CLIL implementation. 	<p>adequate for a school depending on its characteristics and needs.</p> <ul style="list-style-type: none"> ·To plan CLIL implementation and the aims that are to be achieved. To think what curricular demands should the CLIL project consider. ·To identify what modifications have to be done in the school's educational project and the language project due to CLIL implementation. ·To establish the system that will be used to evaluate the project. 	<p>coordination between teachers and with the other members of the educational community.</p> <ul style="list-style-type: none"> ·To establish the channels to share and disseminate the project and its results. ·To adapt the school's educational project and language project. ·To evaluate the results of the project to make informed decisions.
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Once established and defined the competence levels, the next step was to analyse the double degree of infant and primary education curriculum to assign to each course the competences and requisites that should be worked.

Analysis of the Double Degree of Infant and Primary Education Curriculum

The teaching plan³³ of each course of the double degree of infant and primary education was revised to align CLIL teacher’s competences with the competences, learning outcomes and contents established in the teaching plan. This alignment aimed to determine what of the identified competences and at what level could be worked in each course. Table 57 shows the courses included in the double degree curriculum and the competences associated to each course.

A nomenclature of three characters was defined to facilitate the alignment. The first letter indicates whether it is referred to a competence (C) or a requisite (R); the number indicates the specific competence or requisite; and, the last letter indicates the level at which the competence or requisite has to be worked: basic (B), intermediate (I) or expert (E) (Table 56). Therefore, the nomenclature C1B stands for self-reflection competence at the basic level.

Table 56. *Nomenclature used to associate a competence/requisite and level to each course.*

Competence/Requisite	Requisites	Competences	Level
C=Competence R=Requisite	1=Language knowledge. 2=Content knowledge. 3=Theoretical Underpinnings.	1=Self-reflection. 2=Communicative. 3=Methodological. 4=Assessment. 5=Materials and learning resources. 6=Classroom Management. 7=Research and innovation. 8=Project Management.	B=Basic I=Intermediate E=Expert

³³ The teaching plan is a document that establishes and synthesises the competences, learning outcomes, contents and assessment criteria of a course, at the same time that it is suggested the type of methodology, learning and assessment activities. The teaching plan is shared by all teachers.

Table 57. *Competences and Requisites for each course.*

Course	ECTS	Year	Semester	Competence Level
Psicologia de l'Educació a l'Etapa de Primària (<i>Educational Psychology in Primary Education</i>).	12	1st	Annual	C1B; C3B; R3B
Infància, Salut i Educació (<i>Childhood, Health and Education</i>)	6	1st	1st	C1B; C3B; R3B
Llengua Estrangera per a l'Ensenyament (<i>Foreign language for teaching</i>)	6	1st	1st	R1B
Processos Educatius i Pràctica Docent a l'Educació Primària (<i>Educational processes and teaching practice in primary education</i>).	6	1st	1st	C1B; C3B; R3B
Sociologia de l'Educació (<i>Educational Sociology</i>)	6	1st	1st	C1B; R1B
Alfabetització Digital (<i>Digital Literacy</i>)	6	1st	2nd	C3B; R2B
Llengua Castellana per a l'Ensenyament (<i>Spanish for teaching</i>)	6	1st	2nd	C2E
Llengua Catalana per a l'Ensenyament (<i>Catalan for teaching</i>)	6	1st	2nd	C2E
Planificació, Disseny i Avaluació de l'Aprenentatge de l'Activitat Docent (<i>Planning, Design and Assessment of Learning and Teaching Activity</i>).	6	1st	2nd	C1B, R1B; C3B; C2B; C4B; C5B; C6B;
Art, Societat i Educació (<i>Art, Society and Education</i>)	6	2nd	1st	C3B; C4B; C4B; C5B; C6B;
Coneixement i Exploració de l'Entorn Natural (<i>Knowledge and exploration of the natural environment</i>)	6	2nd	1st	C1B, R1B; R2B; C2B; C4B; C5B; C6B;
Didàctica de la Llengua I (<i>Language Didactics I</i>).	6	2nd	1st	C3B; R2B; C4B; C5B; C6B
Expressió Musical i Corporal (<i>Musical and Corporal expression</i>)	6	2nd	1st	C3B; R2B; C4B; C5B; C6B
Matemàtiques, Ciències Experimentals i Educació (<i>Mathematics, Experimental Science and Education</i>).	6	2nd	1st	C3B; R2B; C4B; C5B; C6B
Sistema Educatiu i Organització Escolar (<i>Educational System and School Organisation</i>).	6	2nd	1st	R1B; C1B C6B; C7B; C8B
Aprenentatge i Ensenyament de les Ciències Naturals (<i>Learning and Teaching Natural Sciences</i>).	6	2nd	2nd	C3B; R2B; C4B; C5B; C6B
Didàctica de la Llengua II (<i>Language Didactics II</i>).	6	2nd	2nd	C3I; R2I; C4I; C5I; C6I
Intervenció a l'Aula d'Infantil (<i>Intervention in Infant classrooms</i>).	6	2nd	2nd	C1B; C3B; R3B; C4B; C5I; C6I
Pràcticum I (<i>Practicum I</i>).	18	2nd	2nd	C1B; C3B; R2B; C4B;

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				C5B; C6B; C7B; C8B
Didàctica de l'Educació Física (<i>Didactics of Physical Educatio</i>)	9	3rd	Annual	C3I;R2I; C4I; C5I; C6I
Didàctica de l'Educació Visual i Plàstica (<i>Didactics of Arts & Craft</i>).	9	3rd	Annual	C3I; R2I; C4I; C5I; C6I
Didàctica de la Música (<i>Didactics of Music</i>).	9	3rd	Annual	C3I; R2I; C4I; C5I; C6I
Didàctica de les Matemàtiques (<i>Didactics of Mathematics</i>).	9	3rd	Annual	C3I; R2I; C4I; C5I; C6I
Acció Tutorial: Relacions Escola, Família i Comunitat (<i>Tutorial Action: School relationships, family and community</i>).	6	3rd	1st	C1I; C8I
Didàctica de la Història (<i>Didactics of History</i>).	6	3rd	1st	C3I; R2I; C4I; C5I; C6I
Didàctica de la Literatura Infantil i Juvenil (<i>Infant Literature</i>).	6	3rd	1st	C3I; R2I; C4I; C5I; C6I
Didàctica de les Habilitats Comunicatives (<i>Didactics of Communicative skills</i>).	6	3rd	2nd	C3E; R2E; C4E; C5E; C6E
Teoria i Pràctica de l'Escola Inclusiva (<i>Theory and Practice of Inclusive school</i>).	6	3rd	2nd	C1I; C3I; R2I; R3I; C4I; C5I; C6E
Pràcticum II (<i>Practicum II</i>)	27	4th	1st	C1I; C3I; R2I; C4I; C5I; C6I
Recerca i Innovació en la Pràctica Educativa (<i>Research and Innovetion in Educational Practice</i>).	6	4th	1st	C7I
Didàctica de la Geografia (<i>Didactics of Geography</i>).	6	4th	2nd	C3I; R2I; C4I; C5I; C6I
Didàctica de la Matèria, l'Energia i la Interacció (<i>Matter, Energy and Interaction Didactics</i>).	6	4th	2nd	C3I; R2I; C4I; C5I; C6I
Introducció a la Didàctica de la Llengua Anglesa (<i>Introduction to English teaching and learning</i>)	6	4th	2nd	R1I; C3I; R2I; C2I; R3I; C4I; C5I; C6I
La Planificació Docent a L'àrea de Llengua (<i>Planning of language discipline</i>).	6	4th	2nd	C3E; R2E; C4E; C5E; C6E
Raonament i Activitat Matemàtica a Primària (<i>Reasoning and Mathematics' activity in primary</i>).	6	4th	2nd	C3E; R2E; C4E; C5E; C6E
Pràctiques II (<i>Practicum I</i>)	30	5th	Annual	C1E; R1E; C3E; R2E; C2E; C4E; C5E; C6E;C7E; C8E
Specialisation: compulsory course 1	6	5th	1st	It will vary depending on the selected specialisation
Specialisation: compulsory course 2	6	5th	1st	It will vary depending on the selected specialisation
Final Project	6	5th	1st	It will vary depending on the topic selected
Specialisation: Compulsory course 3	6	5th	2nd	It will vary depending on

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				the selected specialisation
Specialisation: optional course 1	3	5th	2nd	It will vary depending on the selected specialisation
Specialisation: optional course 2	3	5th	2nd	It will vary depending on the selected specialisation
Specialisation: optional course 3	3	5th	2nd	It will vary depending on the selected specialisation
Final Project	6	5th	2nd	It will vary depending on the topic selected.

Allocating the competences and requisites to each course allowed to design the competence map for the double degree of infant and primary education. It was established what competences were worked each semester and at what level during the five years (Table 58).

Table 58. *Competence Map for the double degree of Infant and Primary Education.*

COMPETENCE	1st YEAR		2nd YEAR			3rd YEAR			4th YEAR			5th YEAR	
	1st semester	2nd semester	3rd semester	4th semester		5th semester	6th semester		7th semester	8th semester		9th Semester	10th Semester
Language knowledge	Basic	Basic	Basic	Basic						Intermediate		Expert	Expert
Content knowledge	Basic	Basic	Basic	Basic	Intermediate	Intermediate	Intermediate	Expert	Intermediate	Intermediate	Expert	Expert	Expert
CLIL underpinnings	Basic	Basic		Basic			Intermediate			Intermediate		Expert	Expert
Self-reflection	Basic	Basic	Basic	Basic	Intermediate	Intermediate	Intermediate		Intermediate			Expert	Expert
Communicative		Basic	Basic							Intermediate		Expert	Expert
Methodological	Basic	Basic	Basic	Basic	Intermediate	Intermediate	Intermediate	Expert	Intermediate	Intermediate	Expert	Expert	Expert
Assessment	Basic	Basic	Basic	Basic	Intermediate	Intermediate	Intermediate	Expert	Intermediate	Intermediate	Expert	Expert	Expert
Material and learning resources	Basic	Basic	Basic	Basic	Intermediate	Intermediate	Intermediate	Expert	Intermediate	Intermediate	Expert	Expert	Expert
Classroom Management	Basic	Basic	Basic	Basic	Intermediate	Intermediate	Intermediate	Expert	Intermediate	Intermediate	Expert	Expert	Expert
Research			Basic						Intermediate			Expert	Expert
CLIL Project Management			Basic			Intermediate			Intermediate			Expert	

The graphic representation of the competence map showed that there were some competences and requisites that were worked during the whole degree. This is the case of content knowledge, methodological, assessment, learning resources and classroom management competences. Nevertheless, the competence map also showed that there were other competences and

requisites that were not worked continuously what made more difficult to assure that pre-service teachers would finish their studies with an expert level. This is the case of language knowledge requisite, as well as communicative, research and innovation and project management competences. Therefore, this analysis suggests that, if these were the competences to be worked during the degree, the curriculum should be revised to assure that it would be possible for teacher students to attain the expert level for all competences. However, the competence map designed for this doctoral thesis is parallel to the existing one for the double degree³⁴. Consequently, this competence map could include other competences, which are worked throughout the degree, that were not considered in this study.

On the other hand, the competence map obtained, and considering that this is specific of a degree in a given context, seems to partially explain some of the training needs identified in previous studies.

After designing the first version of the competence map, the aim was to validate it through different channels. First, the thesis supervisor acted as an external expert making some suggestions in competence selection, their definition and the competence map. Indeed, it was thanks to her suggestions that the number of competences was reduced, as well as the competence map was represented graphically.

At the same time, it was intended that this proposal was validated by a CLIL expert with a wide experience in CLIL teacher education. However, after several attempts, it was not possible. On the other hand, institutional validation and support was also asked. The head of Didactics and School Organisation Department at that point in time offered his support to implement this proposal in the courses that are responsibility of this department. In the same line, the acceptance of the academic coordinator and the language coordinator of the double degree was asked. The former approved the implementation of the designed proposal. The language coordinator assessed and validated the proposal making some suggestion for its implementation that were considered in the planning (see section 5.5.2.2. Design and Planning of the Intervention), such as language scaffolding.

The design of the competence framework that had to base the intervention together with the institutional support led to the design and planning of the intervention in the two selected courses: (1) *Planning, Design and Assessment of Learning and Teaching Activity* and (2) *Educational System and School Organisation*.

³⁴ Even though the competence map was asked, it was not possible to access to it, what made difficult the analysis of the designed proposal and its adequacy to the context.

5.5.2.2. Design and Planning of the Intervention

Intervention Design

The specific objective 5 of this doctoral thesis was **to design, implement and evaluate an initial CLIL teacher education proposal for primary teachers from the competences and training requisites identified**. Therefore, not only was it necessary to identify CLIL teachers' competences and design a competence map for the double degree of infant and primary education, but also it was also necessary to implement this proposal in different courses. This design was piloted in two courses of the double degree: (1) *Planning, Design and Assessment of Learning and Teaching Activity* and (2) *Educational System and School Organisation*. Several stages were necessary to go from the competence map to the evaluation of the intervention:

1. Design of the competence map.
2. Revision of the principles of good training programmes.
3. Decision-making process based on previous evidences.
4. Planning the intervention.
5. Implementing the intervention.
6. Evaluating the intervention.

The implementation in these two courses had to follow the same criteria so that it could be analysed whether this proposal had a positive effect on students' competences development. For this reason, the **characteristic principles of good training programmes** established by Darling-Hammond and Bransford (2005) were considered. These characteristics were:

- *Connection and coherence*. A set of big ideas are established and continuously revisited; there is a strong and common vision of what good teaching means; a set of standards are established.
- *Content organisation*. The design of teaching programmes is based on the content of teacher education, the learning process and the learning context.
- *The subject matters*. There is a conscious planning of what is learnt, but also how it is learnt.
- *The Learning Process*. Establishing key foundation ideas that serve as a base for future learning; learning is scaffolded; learning about practice also takes place in practice
- *Situated learning*. Teacher's education should be developed in ways that connect to the content and students pre-service teachers will teach.

As for the first characteristic, it was considered that the nexus that connected the designed proposal was the competence map and the selection of the competences established for the

double degree. However, it was considered that this was not enough and, consequently, it was necessary to make some decisions to assure the connection and coherence between the two selected subjects and how the content was organised and worked (characteristic 2) and the type of learning situations offered to develop teacher student learning process (characteristics 3 and 4).

Aiming to offer a greater coherence in the decision-making process, planning and implementation of the proposal, the principles of competence-based approach, the principles of the OECD report *The nature of learning* (Dummont et al., 2010) and the report *Initial Teacher Education in Catalonia in relation to English: State of the art and future proposal for CLIL teaching* (Grup de treball d'Anglès del Programa MIF, 2016) were considered. These reports were selected because they were the result of the research on teacher education and, based on this analysis, the reports established how teacher education should be orientated. Likewise, the OECD report was the result of an international study, what allowed its generalisation. The MIF report was local since it studied the Catalan context, but it summarised what the main challenges for CLIL teacher education were and how initial teacher education could address them. Even though all these principles and characteristics have been summarised in chapter 4, a synthesis will be presented so as to relate these principles to the design and planning.

Provided that the aim was to develop CLIL teachers' competences, it was used a teaching and learning competence-based approach. The **competence-based approach** is characterised by:

- Learning activities that allow to select and integrate different types of knowledge (concepts, abilities, attitudes...) (Cano, 2015; Rogiers, 2007).
- Showing the competence level in action. Consequently, practical activities, in which the student integrates and applies knowledge to solve a complex tasks, are fostered (Cano, 2015; de Miguel, 2006; Perrenoud, 2004b; Rogiers, 2007).
- Each problem and complex situation is solved in the context where they occur (Cano, 2015; Gordon et al., 2009).
- Placing the student in the centre of the learning process, as an active agent in the learning process (Caena, 2011; Cano, 2015), fostering his autonomy, critical thinking, self-assessment and self-regulation.

Besides the principles of the competence-based approach, the **seven principles of the OECD report *The nature of learning*** (Dummont et al., 2010) were considered to prepare teacher students for the challenges they would have to face in their schools. Conner and Sliwka (2014)

argue that these seven principles should be followed by effective initial teacher education to prepare teacher students. These seven principles are:

1. Develop learning environments that recognise learners as the core participants and promote student-centred approaches.
2. Base the pedagogical decisions on the social nature of learning theories and promote collaborative learning.
3. Attune the teaching practice to learners' motivations and emotions.
4. Create a learning environment that is sensitive to the individual differences among the learners and include their prior knowledge.
5. Demand hard work and challenge for all without excessive workload.
6. Establish clear expectations and use assessment strategies consistent with these expectations.
7. Promote horizontal connectedness across areas of knowledge and subjects, as well as the community and the wider world.

The aim of this intervention was to develop CLIL teachers' competences. For this reason, the design of the intervention had to also follow the principles of this approach. The points established in the report *Initial Teacher Education in Catalonia in relation to English: State of the art and future proposal for CLIL teaching* (Grup de treball d'Anglès del Programa MIF, 2016, p. 13) were also considered to design a proposal that was aligned with CLIL principles. According to this report, CLIL training should ensure (p.13):

- A C1 level in the target language.
- Discursive competence in the academic genres characteristic of the content subject: terminology, genres, etc.
- Training in the content subject pedagogy.
- Training in the role of the additional language in the Catalan curriculum and about acquisition of additional languages in the school context.
- Training on the integration of content and language: planning, assessment, methodological strategies and resources.
- Training in classroom management: scaffolding, manage the communication, students' participation, etc.
- Training on ICT to encourage communication in the additional language.
- Training in collaboration between teachers of different areas and educational levels so as to plan, implement and evaluate the CLIL project.

All these principles and characteristics had consequences for courses planning. **Some decisions were made to follow this principles and characteristics in practice:**

Decision 1: The course planning had to include the competence to be worked, as well as the learning outcomes, contents and assessment criteria had to be aligned with the competences and integrate the content and language to be worked.

Decision 2: Learning and assessment activities had to be competence-based; that is, they had to encourage the integration and mobilisation of different kinds of knowledge to solve a problem in a given context putting the students in the centre.

Decision 3: Learning and assessment activities had to be demanding and represent a cognitive challenge for students since the activities would be competence-based.

Decision 4: Practical activities would be used to apply theory and to infer theory from practice.

Decision 5: The activities had to encourage different types of students' grouping (individual, in pairs, small groups...), as well as to foster collaborative learning.

Decision 6: It would be reflected on the role of language in the learning process from a curricular and organisational perspective.

Decision 7: Formative assessment would be used and different assessment agents (self-assessment, peer-assessment...), strategies, tools and formative feedback would also be used.

Decision 8: Content and language (terminology, genres...) would be assessed.

Decision 9: Learning outcomes and assessment criteria of the learning and assessment activities would be shared with the students so that they could self-regulate their own practice.

Decision 10: Systematic reflection on their learning process and competence development would be foster through a portfolio.

Decision 11: Students' individual differences in terms of content and language knowledge, as well as interests and motivation would be taken into consideration.

Decision 12: Technology would be used as a support for the teaching and learning process (activities, self-reflection, assessment...).

These decisions were the backbone for planning the intervention in the two courses selected to pilot the design. The explanation of how these decisions were materialised is included in the following section.

Planning of the Intervention

The designed proposal was piloted in the courses (1) *Planning, Design and Assessment of Learning and Teaching Activity* and (2) *Educational System and School Organisation* from the double degree of infant and primary education. As indicated in the curriculum (Table 57), the former is a first-year course from second semester and considered as basic training subject. This first course is focused on curriculum and classroom planning. The second course, *Educational System and School Organisation*, is a second-year, first semester course which is focused on the organisation and the educational system. The selection of these two subjects was not arbitrary. On the one hand, the content addressed in these two courses allowed to work the identified competences for a CLIL teacher. On the other hand, these two subjects allowed to follow the students longitudinally.

The process followed to plan and design the intervention in the subjects *Planning, Design and Assessment of Learning and Teaching Activity* and *Educational System and School Organisation* was the same. First, the **competences and the competence level** established in the competence map were identified (Table 59). For both subjects, the competence level was the basic one.

Table 59. *Competences and Requisites to be worked in each course.*

Planning, Design and Assessment of Learning and Teaching Activity	Educational System and School Organisation
Requisites	
Language knowledge. Content knowledge . Theoretical underpinnings.	Language knowledge. Content knowledge.
Competences	
Self-Reflection competence. Communicative competence. Methodological competence. Assessment competence. Material and learning resources competence. Classroom management competence.	Self-Reflection competence. Classroom Management competence. Research and Innovation competence. Project Management competence.

The second step was to **analyse the teaching plan** of each subject to align the competences and competence level with the teaching plan. First, the competences, learning outcomes, contents and assessment criteria of the teaching plan were aligned. Second, the competences established

for a CLIL teacher were compared to those of the teaching plan and its definition to align them. Third, the learning outcomes, contents and assessment criteria were compared with the definition of each competence and the established competence levels. If there was not a clear alignment, it was decided to add to the planning those aspects that were not include in the teaching plan (in bold). The premise followed was that it could be never reduced what the teaching plan established because it is the document that regulates what has to be taught in each course for all teachers in charge of that subject. However, those aspects that were not considered in this document were added (Table 60).

Table 60. Example of the alignment and modifications made in the teaching plan.

COMPETENCES	LEARNING OUTCOMES	CONTENTS	ASSESSMENT CRITERIA	RELATIONSHIP COMPETENCE LEVEL
8. To understand learning as a global, complex and transcendental fact; self-regulate the own learning, mobilise different types of knowledge, adapting to the new contexts and integrate knowledge to construct new knowledge. [Self-reflection competence]	<ul style="list-style-type: none"> ·To build a practical, critical and reflective understanding and perspective of learning and teaching processes and their planning. ·To reflect and construct a new practical and reflective perspective about content and language integrated learning. ·To elaborate the own informed criteria about key learning at primary education and the methodologies that favour and foster this learning. 	<ul style="list-style-type: none"> ·The key content: selection and organisation. ·Methodologies for teaching and learning. 	<ul style="list-style-type: none"> ·Teaching and learning processes and their planning are critically reflected from the identification of the own beliefs, teaching characteristics, as well as the current learning results. ·Key competences for primary education are identified through the analysis of the curriculum and current learning results. 	<ul style="list-style-type: none"> ·To identify and reflect on the own beliefs about teaching and learning. ·To recognise and reflect on the own believes about content and language integrated learning. ·To explore and reflect on the own characteristics as a teacher, the potentialities and the areas of improvement.

The alignment made for *Planning, Design and Assessment of Learning and Teaching Activity* (Appendix 18) required more modifications than the one for *Educational System and School Organisation* course (Appendix 19) because the former did not include the assessment criteria or

all the established indicators. The section ‘language knowledge’ was added for both courses because it was not included for any of the subjects. Additionally, language had to be carefully planned because both subjects would be taught in English.

Once the alignment was made, the **sessions were planned**. The planning was based on the alignment made and the decisions established above. With regard to the integration of the decisions, these were included in the planning of the subject *Planning, design and assessment of learning and teaching activity* ([Appendix 20](#)) as it is synthesised in Table 61.

Table 61. *Explanation of how the decisions were adapted to Planning, Design and Assessment of Learning and Teaching Activity Course.*

Decisions	How were these decisions materialised?
<i>Decision 1:</i> The course planning had to include the competence to be worked, as well as the learning outcomes, contents and assessment criteria had to be aligned with the competences and integrate the content and language to be worked.	<ol style="list-style-type: none"> 1. The teaching plan was aligned with the competences and the competence level established in the design of this proposal (appendix 20). 2. The competences, learning outcomes, contents and language were made explicit per each session (appendix 20). 3. The assessment criteria of each assessment activity were aligned to the established competences. 4. Each assessment task had an assessment criterion that referred to language. 5. It had to be clearly established what the cognitive, conceptual and language aims were in each activity to know which of these three elements should receive the focus.
<i>Decision 2:</i> learning and assessment activities had to be competence-based; that is, they had to encourage the integration and mobilisation of different kinds of knowledge to solve a problem in a given context putting the students in the centre.	<p>Learning and assessment competence-based activities were designed. An example of this kind of activities is the analysis of PISA and key competences exams to infer the characteristics of competence-based activities (appendix 20, session 09/03/2017, activity 2).</p> <p>An example of assessment task with a competence-based approach is the analysis of a text book to argue whether the teacher students would recommend that book to the rest of the teaching staff of their school or not (appendix 21, assessment activity: analysis of a textbook).</p>
<i>Decision 3:</i> Learning and assessment activities had to be demanding and represent a cognitive challenge for students since the activities would be competence-based.	<p>Learning activities were demanding since students had to mobilise, integrate and apply different types of knowledge to solve a complex task.</p> <p>An example is the assessment activity in which students were asked to elaborate a global unit (Appendix 21, assessment activity global unit). In this activity, students had to plan a unit in which the contents worked in the subject were included.</p>
<i>Decision 4:</i> Practical	It was used a training modality that combined theory and

<p>activities would be used to apply theory and to infer theory from practice.</p>	<p>practice. An example is the introductory activity to teaching and learning methodologies (Appendix 20, session 06/04/2017, activity 1). Students had to participate in different activities that used diverse methodologies (projects, gamification, corners, simulations, workshop...) so as to identify the characteristics, potentialities and shortcomings of each methodology.</p>
<p><i>Decision 5:</i> The activities had to encourage different types of students' grouping (individual, in pairs, small groups...), as well as foster collaborative learning.</p>	<p>Different types of grouping were fostered during the sessions depending on the educational aim. For instance, the whole group arrangement was used to work theoretical aspects or to share the work done in small groups. From the very beginning of the subject, students were grouped in groups of 4. These groups were used to do some classroom activities, as well as the design of the didactic unit. Small group were also used to discuss a question or an opinion, as well as to reflect on a given topic before saying it aloud in English. Pairs and small groups were also used for immediate feedback in the classroom. As can be seen in appendix 20, each activity specifies the type of grouping used.</p>
<p><i>Decision 6:</i> It would be reflected on the role of language in the learning process from a curricular and organizational perspective.</p>	<p>The reflection on the role of language in the learning process was made from a curricular perspective. Concretely, it was worked through the analysis of the curriculum and the competence-based approach, as well as CLIL approach. Additionally, special emphasis was given to language planning and its integration in content learning while working the teaching and learning process.</p>
<p><i>Decision 7:</i> Formative assessment would be used and different assessment agents (self-assessment, peer-assessment...), strategies, tools and formative feedback would be used.</p>	<p>Formative assessment was used because constant feedback was provided to students for classroom and assessment activities. Additionally, some changes in the initial planning were made based on the results of the assessment. Moreover, assessment activities were submitted several times so that students could integrate the received feedback in future versions. On the other hand, the teacher assessed the tasks, but peer-assessment was also fostered through classroom activities and assessment tasks. Self-assessment was encouraged systematically through the portfolio. Rubrics and scales were sometimes used to assess some activities.</p>
<p><i>Decision 8:</i> Content and language (terminology, genres...) would be assessed.</p>	<p>The established assessment criteria per each assessed task, as well as informal assessment, made reference to content, processes, attitudes and language. In fact, each assessment activity had a criterion that made reference to language (appendix 21).</p>
<p><i>Decision 9:</i> Learning outcomes and assessment criteria of the learning and assessment activities would be</p>	<p>The learning outcomes and assessment criteria were shared with the students. On the one hand, the description of each task always included its objectives and how it would be assessed. On the other hand, the learning outcomes and assessment criteria were discussed with the students when they were presented the</p>

shared with the students so that they could self-regulate their own practice.	task. The oral presentation of the final project (planning a unit) was assessed through a rubric created collectively (appendix 21, session 18/05/2017, activity 3).
<i>Decision 10:</i> Systematic reflection on their learning process and competence developed would be foster through a portfolio.	One of the assessment activities was to elaborate a portfolio. The aim was that students reflected on their own learning process and competence development. For this reason, at the beginning of the course, students had to explain what their starting point was in relation to the competences, what goals they established for this subject and what actions they would undertake to achieve these goals. The portfolio had to include 6 learning evidences, which were selected by the student, that showed their learning progress and how they had achieved their goals and competence level. At the end of the subject, students had to include a final self-assessment.
<i>Decision 11:</i> Students' individual differences in terms of content and language knowledge, as well as interests and motivation would be taken into consideration.	Students' individual differences were considered in different ways. First, open learning and assessment activities were proposed so that students could solve them depending on their level or interests (for instance, select the topic of the unit). Second, a forum was open on Moodle titled "Questions & Doubts" in which students could ask questions and solve the doubts themselves. The answers were validated by the teacher. On the other hand, several tutorials were conducted with those students that had more difficulties with language or content learning. Groups were heterogeneous so that students with a higher language proficiency or content mastery could support their peers. Finally, during small group activities, the teacher made sure that those students that had more language difficulties were following the lessons.
<i>Decision 12:</i> Technology would be used as a support for the teaching and learning process (activities, self-reflection, assessment...).	ICT was used as a support to the learning process. GoogleSites ³⁵ was used to create the portfolio. In addition, Moodle's tools (Wikis, forums, Workshops...) were used to develop the teaching and learning process. Finally, other tools, such as Socrative ³⁶ were used for immediate assessment of students' understanding and performance. This immediate feedback allowed the teacher and students to be aware of students' understanding.

As mentioned in table 61, assessment tasks that were aligned to the competences, learning outcomes and contents to be learnt were established. For the course *Planning, design and assessment of learning and teaching activity*, the following assessment assignments were established (Appendix 21):

³⁵ <https://sites.google.com/view/pdacourseportfolio/home>

³⁶ <https://b.socrative.com/teacher/#import-quiz/22962271>

1. **Learning activities developed in the classroom.** These activities were done in the classroom and their aim was to apply, infer or reflect on some content. Some of these activities were assessed so as to monitor students' learning progress. All these activities tended to be done in small groups.
2. **Analysis of a textbook.** This activity aimed to analyse an infant or primary textbook from a curricular perspective so as to decide whether student teachers would use that book with their future students and why. This activity was individual.
3. **Design and planning of a cross-curricular didactic unit.** This assignment aimed to design and plan a cross-curricular unit in a foreign language. Students had to describe the educational context (group, school...), justify the relevance of this unit, plan and design the activities and the assessment. Students had to plan and design activities that allowed to work and integrate both language and content. Likewise, students had to anticipate the support primary students would need to achieve the learning outcomes. Apart from designing the didactic unit, each group had to present a part of the unit during the process in order to receive feedback from their peers. Additionally, the whole unit was presented at the end of the course. This assignment was done in small groups.
4. **Portfolio.** The aim of the portfolio task was that students self-assessed and self-regulated their learning process and competence development. For this reason, they had to self-assess their starting point at the beginning of the course in terms of competence level, establish the learning outcomes for this subject and the actions that would help them to undertake these actions. The portfolio had to include at least six evidences (activities, readings, informal learning experiences...) that showed students' learning process, together with a reflection in which it was justified why that evidence had been included. At the end, students had to self-assess their learning process and their attainment at the end of the course. Table 62 shows the deadlines to submit each assignment for course 1 and 2.

Table 62. *Deadlines of the assessment tasks for course 1 and 2.*

	Essays	Final Project	Portfolio
Course 1	16 th March 2017	30 th May 2017	6 th June 2017
Course 2	Essay 1: 31 st October 2017 Essay 2: 5 th December 2017	19 th December 2017	9 th January 2018

The planning for *Educational System and School Organisation* course followed the same structure as the previous course ([Appendix 22](#)). This was not trivial because one of the aims was the coherence of the planning so as to follow the students longitudinally. However, some

modifications were made based on teacher’s perceptions but, specially, due to the results of satisfaction surveys administered by the university. The changes were:

- To systematise the language worked in a *Wiki* were the most common language mistakes or problems would be posted so that students could try to find the correct form.
- To give more time to discuss in small group the topics worked before discussing them with the whole class. This strategy would give students more time to prepare the answers in a foreign language and participate in the activity. Additionally, this strategy would increase the participation of those students more reluctant to communicate in an additional language.
- The teaching and learning process slows down when the language of instruction is not mastered by the students. For this reason, it was reduced the number of tasks so as to focus on the essential content of the subject to encourage deep learning.
- To provide greater support and guidelines to elaborate the portfolio since, in general, students had difficulties to self-assess their learning process.

In the same line as in course 1, table 63 shows some examples of how the decisions made in previous stages of the design were materialised in *Educational System and School Organisation Course*.

Table 63. *Explanation of how the decisions were adjusted to Educational System and School Organisation course.*

Decisions	How were these decisions materialised?
<i>Decision 1:</i> The course planning had to include the competence to be worked, as well as the learning outcomes, contents and assessment criteria had to be aligned with the competences and integrate the content and language to be worked.	<ol style="list-style-type: none"> 1. The teaching plan was aligned with the competences and the competence level established in the design of this proposal (appendix 22). 2. The competences, learning outcomes, contents and language were made explicit per each session (appendix 22). 3. The assessment criteria of each assessment activity were aligned to the established competences. 4. Each assessment task had an assessment criterion that referred to language. 5. It had to be clearly established what the cognitive, conceptual and language aims were in each activity to know which of these three elements should receive the main focus.
<i>Decision 2:</i> learning and assessment activities had to be competence-based;	Learning and assessment competence-based activities were designed. An example of a competence-based activity is the one in which students had to pretend that they were in a teaching

<p>that is, they had to encourage the integration and mobilisation of different kinds of knowledge to solve a problem in a given context putting the students in the centre.</p>	<p>staff meeting. Students had to discuss time organisation in this meeting based on a reading students had to prepare for that session (each student selected the reading). Decisions had to be made based on the theory and the readings (appendix 22, session 23/11/2017, activity 1).</p>
<p><i>Decision 3:</i> Learning and assessment activities had to be demanding and represent a cognitive challenge for students since the activities would be competence-based.</p>	<p>Learning activities were demanding since students had to mobilise, integrate and apply different types of knowledge to solve complex tasks. <i>The innovation project</i> is an example of this type of activities (Appendix 23, assessment task, innovation project). Students had to analyse an educational innovation from an organisational perspective. Students had to base the innovation of theory, analyse it and propose suggestions to improve it based on the results obtained in the analysis and what theory says.</p>
<p><i>Decision 4:</i> Practical activities would be used to apply theory and to infer theory from practice.</p>	<p>It was used a training modality that combined theory and practice. An example is the activity that aimed to make students aware of the importance of organisation and teacher collaboration (Appendix 22, session 10/10/2017, activities 1,2 and 3). In this activity, students had to reflect and write down individually what they understood by organisation. Then, a role-playing was conducted in which the class was divided in three groups that had different characteristics in terms of how they were organised in the space, the aim and the head teacher's role. They had 20' to achieve the objective. There were three students that acted as observers. At the end, it was discussed the situation of each group, the difficulties and strengths they had so that students become aware of the conditions that favoured collaboration.</p>
<p><i>Decision 5:</i> The activities had to encourage different types of students' grouping (individual, in pairs, small groups...), as well as foster collaborative learning.</p>	<p>Different types of grouping were fostered during the sessions depending on the educational aim. For instance, the whole group arrangement was used to work theoretical aspects or to share the work done in small groups. From the very beginning of the subject, students were grouped in groups of 4. These groups were used to do some classroom activities, as well as the innovation project. Small groups were also used to discuss a question or an opinion, as well as to reflect on a given topic before saying it aloud in English. Pairs and small groups were also used for immediate feedback in the classroom. As can be seen in appendix 22, each activity specifies the type of grouping used.</p>
<p><i>Decision 6:</i> It would be reflected on the role of language in the learning</p>	<p>The reflection of the role of language in this subject was made from an organisational perspective. This work was done through the analysis of educational regulations, as well as the analysis and</p>

<p>process from a curricular and organizational perspective.</p>	<p>reflection on the language project</p>
<p><i>Decision 7:</i> Formative assessment would be used and different assessment agents (self-assessment, peer-assessment...), strategies, tools and formative feedback would be used.</p>	<p>Formative assessment was used because constant feedback was provided to students for classroom and assessment activities. Additionally, some changes in the initial planning were made based on the results of the assessment. Moreover, assessment activities were submitted several times so that students could integrate the received feedback in future versions.</p> <p>On the other hand, the teacher assessed the tasks, but peer-assessment was also fostered through classroom activities and assessment tasks. Self-assessment was encouraged systematically through the portfolio. Rubrics and scales were sometimes used to assess some activities.</p>
<p><i>Decision 8:</i> Content and language (terminology, genres...) would be assessed.</p>	<p>The established assessment criteria per each assessed task, as well as informal assessment, made reference to contents, processes, attitudes and language. In fact, each assessment activity had a criterion that made reference to language (appendix 23).</p>
<p><i>Decision 9:</i> Learning outcomes and assessment criteria of the learning and assessment activities would be shared with the students so that they could self-regulate their own practice.</p>	<p>The learning outcomes and assessment criteria were shared with the students. On the one hand, the description of each task always included its objectives and how it would be assessed. On the other hand, the learning outcomes and assessment criteria were discussed with the students when they were presented the task.</p> <p>Moreover, the final oral presentation (innovation project) was assessed with the assessment criteria discussed and established by the students.</p>
<p><i>Decision 10:</i> Systematic reflection on their learning process and competence developed would be foster through a portfolio.</p>	<p>One of the assessment activities was to elaborate a portfolio. The aim was that students reflected on their own learning process and competence development. For this reason, at the beginning of the course, students had to explain what their starting point was in relation to the competences, what goals they established for this subject and what actions they would undertake to achieve these goals. The portfolio had to include 6 learning evidences, which were selected by the student, that showed their learning progress and how they had achieved their goals and competence level. At the end of the subject, students had to include a final self-assessment.</p>
<p><i>Decision 11:</i> Students' individual differences in terms of content and language knowledge, as well as interests and</p>	<p>Students' individual differences were considered in diverse ways. First, open learning and assessment activities were proposed so that students could solve them depending on their level or interests (for instance, select the innovation they wanted to study). Second, a forum was open on Moodle titled "Questions &</p>

<p>motivation would be taken into consideration.</p>	<p>Doubts” in which students could ask questions and solve the doubts between them. The answers were validated by the teacher.</p> <p>On the other hand, several tutorials were conducted with those students that had more difficulties with language or content learning. Groups were heterogeneous so that students with a higher language proficiency or content mastery could support their peers. Finally, during small group activities, the teacher made sure that those students that had more language difficulties were following the lessons.</p>
<p><i>Decision 12:</i> Technology would be used as a support for the teaching and learning process (activities, self-reflection, assessment...).</p>	<p>ICT was used as a support to the learning process. GoogleSites³⁷ was used to create the portfolio. In addition, Moodle’s tools (Wikis, forums, Workshops...) were used to develop the teaching and learning process. Finally, other tools, such as Socrative³⁸ were applied for immediate assessment of students’ understanding and performance. This immediate assessment allowed the teacher and students to be aware of students’ understanding.</p>

The assessment proposed for *Educational System and School Organisation* course maintained three types of the assessment tasks proposed in the previous subject: classroom activities, a project and the portfolio. It was decided to reduce the assessment activities from four to three because, as already stated, students’ considered that the amount of work for the previous course was considerable. Likewise, during the first semester of the second year, students of the double degree had six different courses instead of five. For all these, three assessment activities were proposed with the aim to make a better optimisation of them (Appendix 23):

1. **Classroom Activities.** In the same line as in the previous course, this block included all the activities that were done in the classroom (or started in the classroom) aiming to apply, infer or reflect on some content. Some of these activities were assessed so as to monitor students’ learning process. Most of these activities were done in small groups. Language work through the wiki was included in this block (Appendix 24).
2. **Innovation Project.** The aim was to analyse an educational innovation from an organisational perspective. Students had to justify the innovation theoretically, analyse the innovation and propose some suggestion to improve it based on the results obtained and the theoretical framework. This project was made in three stages: first, students had to select the innovation and plan the tasks to be done. The following two stages consisted of developing this initial planning. These three stages were submitted so as to receive a formative feedback from their peers and the teacher offered a general

³⁷ <https://sites.google.com/view/esso/home>

³⁸ <https://b.socrative.com/teacher/#import-quiz/30908619>

feedback to all groups. At the end, each group presented their innovation to the rest of the class.

3. **Portfolio.** In the same line as in the previous subject, the aim of the portfolio task was that students self-assessed and self-regulated their learning process and competence development. For this reason, they had to self-assess their starting point at the beginning of the course in terms of competence level, to establish the learning outcomes for this subject and the actions that would help them to undertake these actions. The portfolio had to include at least six evidences (activities, readings, informal learning experiences...) that showed students' learning process, together with a reflection in which it was justified why that evidence had been included. At the end, students had to self-assess their learning process and their attainment at the end of the course.

Once designed the intervention proposal, this design was implemented with the students. The following section explains how this implementation was carried out.

5.5.3. Implementation of the Proposal

The proposal was implemented in two courses of the double degree of infant and primary education of the University of Barcelona: (1) *Planning, Design and Assessment of Learning and Teaching Activity* and (2) *Educational System and School Organisation*.

With regard to the students, they were diverse. In the first course, the group was formed by 42 students (39 female, 3 male). However, three students drop the studies at the end of the first course. Consequently, there were 39 students (37 female, 2 male) in the second course. The students participating in this study were diverse in terms of their language knowledge since there were students with a high proficiency (C2 according to the CEFR) and other with a basic level (B1 according to the CEFR). Moreover, there were also differences in terms of the previously coursed studies. Most students had studied upper secondary education and accessed university after passing the external exams to enter university (PAU). Nevertheless, there was another group of students that had studied an upper cycle of VET before entering the university. This last group had not studied English for at least two years. For most of the students, it was their first time at university, although there were three students that had started another degree before. Additionally, in general, it was the first time students learnt a content subject in an additional language.

The implementation started in *planning, design and assessment of learning and teaching activity* course, which was from the first year, second semester, course categorised as basic training

subject. The implementation was done in the academic year 2016-2017 (Table 64). The subject started during the second half of February and finished at the end of May. There were a total of 27 sessions. The second course, *educational system and school organisation*, was a second year, first semester subject, categorised as basic training subject. The implementation started during the first semester of the academic year 2017-2018, at mid-September. The continuous assessment finished on December, the 19th. There were a total of 24 sessions.

Table 64. *Information about the courses.*

	Planning, Design and Assessment of Learning and Teaching Activity	Educational System and School Organisation
Course and semester	1st Curs, 2nd semester	2nd curs, 1st Semester
Starting Day	14/02/2017	14/09/2017
End of course	30/05/2017	19/12/2017
Number of sessions	27	24
Number of students	42	39

As any other teaching and learning situation, the planning of both subjects was modified depending on students' needs. These modifications consisted of increasing the amount of time to work a given topic, add some new activities that were not initially planned or offering extra resources. Additionally, extra support was provided through individual and group face-to-face tutorials.

5.5.4. Evaluation of the Proposal

The design was evaluated to analyse whether the competence-based approach had an effect on students' competences development. For this reason, a self-perceived competence level questionnaire was administered at the beginning and at the end of each course as pre- and post-test. This questionnaire was also administered to two control groups. In addition, students' marks and learning evidences were also used to evaluate the proposal.

The explanation of how the design was evaluated and how the self-perceived competence level questionnaire was designed are included in this section. The results obtained from this evaluation are presented in chapter 7.

Methodological Design

Study 5 aimed to tackle specific objective 5 of the doctoral thesis: to design, implement and evaluate an initial CLIL teacher education proposal for primary teachers from the competences and training requisites identified. In this section, the methodological designed to evaluate the designed proposal is explained (Table 65).

Table 65. *Alignment between the specific objectives and hypotheses of the PhD and study 5 objective.*

Specific objectives of the PhD	PhD Hypotheses	Study 5 specific objectives
SO5: To design, implement and evaluate an initial CLIL teacher education proposal for primary teachers from the competences and training requisites identified.	H10: The design and the implementation of a competence-based training proposal for CLIL teaching and learning and CLIL implementation have a positive impact on the development of student teachers' CLIL competences.	SO1: To evaluate longitudinally the effects of competence-based approach on the development of pre-service teachers' CLIL competences.

A **quasi-experimental longitudinal methodological design** was used to evaluate the impact of the training proposal on CLIL competences development and teacher students' learning process. The design was quasi-experimental because it was aimed to analyse the effect of competence-based approach (independent variable) on pre-service teachers' competences development (dependent variable). Therefore, the methodological design was experimental because there was an intentional manipulation of some variables (Latorre et al., 1996; Valles, 1999) and there was a control group. However, there were some differences between the experimental and control groups. Consequently, the design was not purely experimental, but quasi-experimental (Hernández-Sampieri et al., 2006). Although the differences between the experimental and control groups will be later detailed, it is worth highlighting that one of the most remarkable difference is that the teachers from the control and experimental groups were different. Moreover, the process to access teacher education studies were different for the students in the experimental group and those in the control group. These differences, among others, made that the selected methodological design was quasi-experimental.

On the other hand, a **longitudinal** methodological design was used to evaluate the impact of the designed proposal on competences' development. The same group of students (experimental group) was followed during two semesters (2nd semester academic year 2016-2017; 1st semester academic year 2017-2018). A longitudinal design was used because competence development is a process and, therefore, it could be that the effects of the experience were the result of a continuous implementation of a competence-based approach, instead of an isolated experience of just a semester. Furthermore, previous studies seem to indicate that the potential benefits of using an additional language as the language of instruction are the result of a sustained implementation of this approach (Lo & Macaro, 2015; Pladevall-Ballester & Vallbona, 2016). In addition, the longitudinal design allowed to follow and show the learning process and

competences' development of teachers students in the experimental group. Since all participants from the experimental group were followed during the two semesters, the panel longitudinal design was used (Hernández-Sampieri et al., 2006).

Participants

The participants of this study were pre-service teachers from the Faculty of Education of the University of Barcelona enrolled in *Planning, Design and Assessment of Learning and Teaching activity* course (henceforth, course 1) and *Educational System and School Organisation* (henceforward, course 2). (Table 66). With regard to the experimental group, they were enrolled in the double degree of infant and primary education of the University of Barcelona, whereas control group participants were enrolled in primary education degree of the same university. The double degree group was selected as the experimental group for two reasons: one the one hand, it was possible to teach content subjects through English with double degree students. On the other hand, the double degree groups are stable over time because there is one group per course. This fact facilitated following the students' over time. Note that the differences between number of students enrolled in the experimental group is due to drop out. Since there is only one group in the double degree studies, control groups were selected from primary education studies. Teacher students' from primary education studies were also selected because the subjects in which the design was implemented belonged to primary education studies' curriculum.

Table 66. *Number of students enrolled in each subject and group.*

Group	Students enrolled in subject 1	Students enrolled in Subject 2
Experimental group	42	39
Control group 1	47	55
Control group 2	47	46

What the **experimental and control groups had in common** was: first, students were enrolled in the courses in which the design was piloted. Second, all the groups followed the same teaching plan. Therefore, all teachers teaching these subjects had to orientate the teaching and learning activity to work and attain the same competences, learning outcomes and contents established in the teaching plan. Third, it was the first or second year at university for most of the students in these three groups. Even though primary education degree lasts 4 years and the double degree lasts 5 years, the teaching plan of the double degree integrates the subject of infant and primary education degrees. All groups, except control group 1 in the second subject, had their lessons in the afternoon. Note that students enrolled in afternoon groups tend to combine their studies with part-time jobs. In addition, schedules are selected according to the marks obtained

in the university entrance exams. Thus, students obtaining higher marks choose the group first. Consequently, those students with lower marks tend to select afternoon schedules because morning ones are full. However, this does not apply to the double degree group because the lessons are only offered in the afternoon schedule.

Despite the common aspects between the three groups, there were some **differences** between them that made that the methodological design was quasi-experimental. These differences between the group are actually a limitation to interpret the results. First, the process to access primary education degree and the double degree was slightly different. Both groups had to pass the national exam to enter university. However, students' from the double degree were advised to have a B2 level in English since some courses would be taught in English. Additionally, the double degree tends to attract high performing students. Second, teachers were different for the three groups and in the two courses. Only the teacher from the experimental group (the PhD candidate) was the same in both courses. Due to the impact teachers have on students' learning, it is possible that some of the differences between the three groups could be explained by the teacher each group had. Third, all three groups had different teachers in all other courses. Therefore, even though the teaching plan was the same, students did not participate in the same learning experiences. This could explain possible differences in the starting point of each group, as well as the final competence level attained. The individual differences of each student should also be considered, what makes that two groups are never equal (Latorre et al., 1996). Finally, while the experimental group had lessons in the afternoon, the control group 1 from the second subject was a morning group.

The students in the control groups changed from one course to another. The same students could not be tracked because the groups were not stable. That is, students can select different groups and schedules each academic year. This causes that groups change considerably from one year to another. Nevertheless, some students from the control groups were the same in both courses. In short, the differences between the groups must be considered as variables that can affect the experience and, consequently, the results obtained.

Experience

The implementation of the proposal consisted of applying a competence-based approach that allowed to develop the competences associated to courses 1 and 2 at the desired performance level. Table 67 shows the competences and requisites to be worked in each of the courses in which the design was piloted. All competences were worked at the basic level, as the competence map established.

Table 67. *Requisites and Competences associated to the two courses involved in the experience.*

Competences and Requisites	Planning, Design and Assessment of Learning and Teaching Activity	Educational System and School Organisation
Requisites	Language knowledge Content knowledge Theoretical principles	Language knowledge Content knowledge
Competences	Self-reflection Communicative Methodological Assessment Material and learning resources Classroom Management	Self-reflection Classroom management Research and innovation CLIL project management

Considering the characteristics of the competence-based approach stated in chapter 4 of the theoretical framework, student-centred tasks in which teacher students had to apply and integrate different types of activities were designed. Likewise, active methodologies were used, such as projects, cases, oral presentations or simulations. For both subjects, assessment tasks included a final project, in which the theoretical content had to be applied, a portfolio, where students had to reflect and show their learning and competence level, and classroom activities that allowed the practical application of the course contents. Additionally, self-assessment and peer-assessment activities were encouraged. Table 68 shows the deadlines to submit the final version of the assessment tasks.

Table 68. *Due dates of the final version of each assessment task (duplicate of table 62).*

	Essays	Final Project	Portfolio
Course 1	16 th March 2017	30 th May 2017	6 th June 2017
Course 2	Essay 1: 31 st October 2017 Essay 2: 5 th December 2017	19 th December 2017	9 th January 2018

Apart from these adaptations, the group from the double degree was selected because it was possible to use English as the language of instruction. Therefore, CLIL methodologies and strategies could be applied. This should allow students to better understand CLIL approach and, in the future, transfer these strategies to their teaching practice through vicarious learning.

A self-perceived competence level questionnaire was administered as pre- and post-test so as to analyse the effect the competence-based approach had on student teachers' competences development. Apart from the questionnaire, the effect of this approach was also analysed through the final marks and learning activities of each course.

Instruments

The *Self-perceived competence level questionnaire* aimed to know the perceived competence level of pre-service teachers participating in the experience regarding the competences and requisites to be worked during the two courses in which the design was piloted.

The competence level established in the competence map was considered to develop this questionnaire. Therefore, the content of the questionnaire was different for *Planning, Design and Assessment of Learning and Teaching Activity* ([Appendix 28](#)) and *Educational System and School Organisation* ([Appendix 29](#)) because the competences associated to each subject were different. Even though the content of the questionnaire was different, the structure, the organisation and the decisions made were the same for both questionnaires.

A close-ended questionnaire with a 10-point Likert scale was created. The indicators of the basic competence level (level established in the competence map for both subjects) were used to design the questionnaire's items (Figure 17). These indicators were worded differently; that is, initially they were written in infinitive, whereas they were written in first person singular in the questionnaire. At the beginning of each item it was added the structure "I am able to...".

The first version of the questionnaires ([Appendixes 25 and 26](#)) were sent to the control groups' teachers and the language coordinator of the double degree so that they could validate the instruments. All of them acted as external judges to ensure the reliability of the questionnaire (Corral, 2009). The questionnaire was sent together with a validation template ([Appendix 27](#)). The aim of the validation was twofold: first, to assess the relevance of the items regarding their adequacy to the courses' characteristics and objectives. Second, to assess the intelligibility of the items. With regard to intelligibility, it was aimed that all students answering the questionnaire, independently that they participated or not in the piloting, could understand what they were asked.



Figure 17. Example of how the indicators were adapted for the self-perceived competence level questionnaire.

The validation results indicated that the items were considered to be relevant or very relevant in all cases. However, the intelligibility was not always believed to be high. For this reason, the language and wording was simplified because the questionnaires were aimed to first and second year university students. In addition, some items were modified because they integrated two

different aspects. When this occurred, the items were divided in two or it was looked for a general term that encompassed both ideas. Figure 18 shows an example of the changes made in the wording of the items based on the suggestions of the validators.

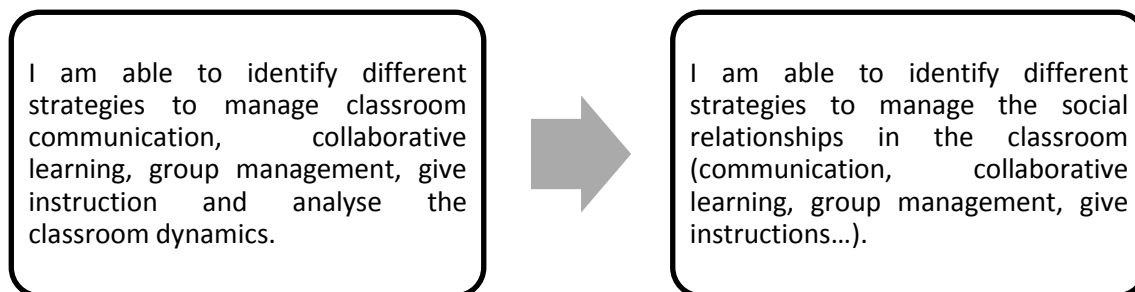


Figure 18. Example of the changes made in the wording of the items.

Self-Perceived Competence Level Questionnaire for Course 1

The questionnaire designed for *Planning, Design and Assessment of Learning and Teaching Activity* (Appendix 28) had 30 questions assessed with a 10-point Likert scale. Table 69 shows the competences assessed through these questionnaire and the number of items that assessed each of the competences and requisites.

Table 69. *Number of items per each competence/requisite assessed in course 1.*

COMPETENCES & REQUISITES	NUMBER OF ITEMS
Self-reflection Competence	3
Communicative Competence	5
Methodological Competence	5
Assessment Competence	4
Material and Learning Resources Competence	4
Classroom Management Competence	4
Language knowledge	3
Content knowledge	2

Table 70 shows an example of the self-perceived competence level questionnaire designed for course 1. In the example presented, the items refer to self-reflection and communicative competence (shaded in grey).

Once the final version of the questionnaire had been elaborated, a Google form³⁹ was created so that the questionnaire could be administered online. All items that refer to the same competence were placed together in the designed questionnaire, but they were presented randomly because the 'random' option from Google forms was selected.

³⁹ <https://goo.gl/forms/X5yBhlt6eFmefbgb2>

Table 70. Example of some of the items of the self-perceived competence level questionnaire for course 1.

	1	2	3	4	5	6	7	8	9	10
1. I am able to identify and reflect on my beliefs regarding teaching and learning.										
2. I am able to recognise and reflect on my beliefs about content and language integrated learning.										
3. I am able to explore and reflect on my teaching characteristics, my potentialities and the areas of improvement.										
4. I am able to identify the characteristics uses of language in a specific discipline (genre, structure, terminology...).										
5. I am able to identify the language aspects that are to be worked in a unit plan.										
6. I am able to plan how to work the language in a specific theme so that it can favour students' learning.										

This questionnaire was administered to students as a pre-test the first day of the course, which was the 14th of February, 2017. The PhD candidate went the three groups to present the thesis' aims and, more concretely, study 5. In line with the RRI principles, it was explained that the data would be used confidentially and that their individual information would not be published or would have an impact on their performance in the course they were enrolled in. Likewise, they were told that the identification number from the University of Barcelona (NIUB) was asked because the pre- and post-test results would be later compared. Student teachers were also told that their participation was voluntarily and that they accepted to participate in the study by answering the questionnaire.

The questionnaire was administered again at the end of the subject, concretely during the last week of May. This time, the administration of the questionnaire was not the same day for the three groups because each group followed a different process to close the subject.

Table 71. Percentage of filled pre and post questionnaires *i*.

GROUP	TOTAL NUMBER OF STUDENTS	% OF PRE-TEST	% OF POST- TESTS	% OF PRE & POST TEST	% NO IDENTIFIED
Experimental	42	95,24%	97,62%	92,86%	0%
Control 1	47	63,83%	46,8%	42,55%	10,64%
Control 2	47	80,85%	61,7%	38,3%	21,27%

Students answered the questionnaire through their electronic devices (mobile phones, laptops or tablets) during lesson time. Table 71 shows the percentage of questionnaires answered in relation to the number of students enrolled in each group. The results of the self-perceived competence level questionnaire for course 1 will be presented in chapter 7.

Self-Perceived Competence Level Questionnaire for Course 2

The Self-Perceived Competence Level Questionnaire for Educational System and School Organisation course ([Appendix 29](#)) had 20 questions which were assessed with a 10-point Likert scale. Table 72 shows the competences and requisites assessed and the total number of items that assessed each of the competences and requisites.

Table 72. *Number of items per each competence and requisite assessed in course 2.*

COMPETENCES & REQUISITES	NUMBER OF ITEMS
Self-reflection Competence	3
Classroom Management Competence	3
Research and Innovation Competence	3
Project Management Competence	7
Language Knowledge	3
Content Knowledge	1

Table 73 shows an example of some of the questions asked in the self-perceived competence level questionnaire for course 2. In the example presented, the items refer to research and innovation competence and Project management competence (shadowed in grey).

Table 73. *Example of some of items of self-perceived competence level questionnaire for course 2.*

	1	2	3	4	5	6	7	8	9	10
10. I am able to look for and identify trustworthy resources to obtain information about the educational system and school organisation.										
11. I am able to critically reflect on the research results regarding teaching innovations.										
12. I am able to critically analyse the educational proposals that come from research, innovation and the educational administration.										
13. I am able to assess what contextual and educational aspects should be considered when implementing an innovation project in a school.										
14. I am able to identify what internal and external stakeholders can support the design and development of CLIL projects and the role they have.										

Once the final version of the questionnaire was designed, a Google form⁴⁰ was created so that the questionnaire could be answered online. As course 1 questionnaire, all items that refer to the same competence were together in the designed questionnaire, but they were presented randomly because the ‘random’ option from Google forms was selected.

The self-perceived competence level questionnaire was administered during the first week of the course (18th-22nd of September, 2017) during class time. The questionnaire was administered face-to-face through Google forms. Therefore, students answered the questionnaire through their electronic devices (mobile phones, laptops and tablets). In line with the RRI principles, the PhD candidate went to each group to explain the thesis and study objectives. Again, it was explained that the data would be used confidentially and it would not be published or would not have an impact on their performance in the course they were enrolled in. Likewise, they were told that the identification number from the University of Barcelona (NIUB) was asked because the pre- and post-test results would be later compared. Student teachers were also told that their participation was voluntarily and that they accepted to participate in the study by answering the questionnaire.

Table 74. Percentage of filled pre- and post-tests for course 2.

GROUP	Nº OF SUDENTS	% OF PRE-TEST	% OF POST-TEST	% PRE AND POST	% NO IDENTIFIED
Experimental	39	87.18%	97.87%	82.05%	0%
Control 1	55	65.45%	52.72%	47.62%	1.81%
Control 2	46	76.08%	58.7%	45.65%	0%

The questionnaire was administered again at the end of the course, more concretely during 14th-21st of December, 2017. The post-test questionnaire was not administered the same day to all groups because each group followed a different process to close the subject. Table 74 shows the percentage of pre- and post-tests answered and the percentage of students that answered both the pre and post-tests. The results obtained in the second course self-perceived competence level questionnaire are presented in chapter 7.

Data Analysis

The process followed to analyse the collected data through the self-perceived competence level questionnaires was the same for both courses. Data was introduced to the software package SPSS 22, which was used to analyse the data quantitatively. Next, the consistency and reliability

⁴⁰ <https://goo.gl/forms/Mg7CElydLrUTp99v1>

of the data, that is that the instrument measured what intended to measure, were calculated through Cronbach's' Alpha (Corral, 2009) per each questionnaire and group.

With regard to course 1 questionnaire, the results indicate that questionnaire's reliability was high because, in all cases, Cronbach's Alpha is higher than $\alpha=.9$ for the experimental and control groups and for the pre- and post-test results (Table 75). These value has been considered to show an excellent consistency (Ruiz Bolívar, 2002). However, this high result can also be the result of the high number of items or that some items are measuring the same (Cortina, 1993).

Table 75. Cronbach's Alpha results for course 1.

Group	Cronbach's Alpha		Cronbach's Alpha for standardised items		Number of items
	Pre-test	Post-test	Pre-test	Post-test	
Experimental	.961	.928	.963	.936	30
Control 1	.948	.949	.951	.955	30
Control 2	.948	.922	.955	.931	30

As for the questionnaire for course 2, the results also indicated that the reliability of the questionnaire was high since in all cases Cronbach's Alpha was equal or higher than $\alpha=.9$ for all groups and for both the pre- and post-test (Table 76). Once ensured the reliability of the results, it was explored if the data was normally distributed using *Kolmogorov-Smirnov* and *Shapiro-Wilk* tests. The analysis indicated that data tended to be normally distributed. However, there were some items that were not. For this reason, the data was analysed in order to identify possible outliers. These were identified and not considered for the analysis. After making these adjustments, the tests indicated that data was normally distributed.

Table 76. Cronbach's Alpha results for course 2.

Group	Cronbach's Alpha		Cronbach's Alpha for standardised items		Nº d'Ítems
	Pre-test	Post-test	Pre-test	Post-test	
Experimental	.926	.907	.921	.909	20
Control 1	.939	.927	.944	.927	20
Control 2	.964	.931	.966	.941	20

Data was analysed using descriptive and inferential statistics. Descriptive statistics were used to calculate the mean and standard deviation. Inferential statistics were applied to analyse possible causal and correlational relationships. *Pearson's r test* was used to analyse possible correlations between the different items, as well as the results obtained in the questionnaires and the

courses and assignments' marks. *T-test* or *student t* was used to study possible significant differences ($p \leq .05$) between two means in the pre- and post-test, as well as between the marks.

On the other hand, factorial analysis was used for different purposes. First, one-way ANOVAs were used to explore a main effect of items that measured the same competence, that is, to explore if participants' believed that they had all dimensions of a competence equally developed. One-way ANOVAs were also used to explore a main effect of competence; that is to say, whether participants perceived they had all competences equally developed. One-way ANOVAs were used to explore a main effect of group; that is, if the perceived level of competence could be explained by the group the students belonged to. Likewise, a Two-Way ANOVA was conducted to explore a possible effect of group * competence. It was aimed to explore if the differences between the perceived level per each competence could be explained by the group the students belonged to.

ANCOVAs were also run because the results of the t-test indicated if the perceived level of competence of each group varied between the beginning and the end of the subject. Nonetheless, they did not explain how these perceptions varied in relation to the other two groups and their starting point. For this reason, it was thought that an analysis of covariance (ANCOVA) could be conducted. An ANCOVA is

an extension of analysis of variance in which main effect and interactions of IVs are assessed after DV scores are adjusted for differences associated with one or more covariates (CVs), variables that are measures before the DV and are correlated with it (Tabachnick & Fidell, 2007, p. 195).

Apart from the results of the self-perceived competence level questionnaire, the marks from the assessment tasks of the experimental group were used to analyse the effect of competence-based approach. Even though previous evidence has suggested that self-perceptions tend to be aligned with the participants current state (Hernández-Sampieri et al., 2006), it was believed that comparing students' perceptions with their marks would allow to have a better understanding of their actual competence level, as well as having more objective data.

Each assessment criteria of the assignments referred to one of the competences that could be assessed in that piece of work. There were at least two criteria that assessed each competence per course. Two steps were done in order to explore whether students' perceptions were aligned to the marks they obtained. First, it was explored whether students' marks correlated through the non-parametric test *Spearman*. Second, a single mean was calculated per each

competence. Wilcoxon Signed Rank and Friedman's tests were used to compare possible significant differences between means.

The marks' analysis consisted of exploring whether there was a significant difference between the marks obtained per each competence and students' self-perceptions. It was also analysed if students' ratings correlated with the final marks obtained in each course. Finally, it was also explored whether students' marks improved over time showing students' progress in terms of competence development.

RESULTS

Chapter 6. Results Block I: Non-Experimental Studies

This chapter includes the results obtained in the four non-experimental studies. The results are presented separately; that is, the findings of each study are presented in isolation without being compared. This comparison will be done in the conclusions (chapter 8). The explanation of the results has the following structure: first, there is a brief introduction in which the objectives, the participants and the data collection instruments are summarised. Second, the results are presented. Finally, there is a brief summary that synthesises the main findings.

6.1. Results Study 1: Pre-Service Teachers' Training Needs

Study 1 had three aims. Firstly, the study intended to identify CLIL teachers' competences. A second aim was to know the training needs of pre-service foreign language teachers. Another purpose was to compare the perceptions of pre-service foreign language teachers (n=44) with those of teacher trainers (n=10), education inspectors (n=5) and CLIL coordinators from the Education Department (n=3). To this end, stakeholders' perceptions were studied through Peacocks' (2009) questionnaire and semi-structured interviews.

6.1.1. CLIL Teachers' Competences

The first aim of this study was to analyse the extent to which stakeholders (pre-service primary and secondary language teachers, trainers, inspectors and CLIL coordinators) perceived that communicative, self-reflection, methodological and classroom management competences were relevant for a CLIL teacher and, if so, whether these competences were perceived equally relevant by all groups. Participants had to rate, using a 6-point Likert scale (1-not relevant at all, 6-very relevant), the relevance of each domain analysed.

Several Independent-Samples Kruskal-Wallis tests were run in order to evaluate whether there were a significant effect of group (teacher trainers, inspectors and CLIL coordinators) in the perceived relevance of communicative, self-reflection, methodological and classroom management competences. The result showed that a non-significant main effect of group could be found for any of the competences. Consequently, teacher trainers, inspectors and CLIL coordinators' results were analysed together.

The overall medians for each competence were calculated (Table 77). Communicative, methodological and classroom management competences got the higher score (6), whereas self-reflection got an overall median of 5.

Table 77. *The perceived relevance of each competence (median).*

	Pre-service primary	Pre-service secondary	Teacher trainers	Inspectors	CLIL Coord.	Median
Communicative Competence	6	6	6	6	6	6
Self-reflection Competence	6	6	5	4	5	5
Methodological Competence	6	6	6	6	6	6
Classroom Management Competence	6	6	5	6	5	6

A Friedman's Two-Way Analysis was run in order to analyse whether participants perceived these competences were equally important. A significant main effect of competence was found ($\chi^2(3) = 14.625$, $p = .002$, $X = .15$). This effect appeared to be moderate meaning that the competences studied were not perceived as equally important. However, all of the pairwise comparisons with the significant values (p) adjusted to the number of comparisons revealed that there was not any significant difference between the comparisons. The pairwise comparison closer to significance was the one between communicative and self-reflection competences ($p = .085$). This finding suggested that self-reflection competence was believed to be less relevant than language competence, especially for teacher trainers, Inspectors and CLIL Coordinators.

The analysis of the qualitative data (the interviews and the open-ended questions from the questionnaire) revealed stakeholders referred to other competences apart from the ones initially analysed. Since these new domains were repeatedly reported, they were included in the analysis. For this purpose, three new competences plus content knowledge were added and coded as coordination, material development and interschool collaboration competences (Figure 19).

Even though content knowledge was not considered a competence within the theoretical framework of this study, **content knowledge** was repeatedly reported as a competence by the participants of this study. Stakeholders believed that a good CLIL teacher should possess an extensive knowledge of the content subject and its peculiarities since language and content

were taught integratively in CLIL: “More cross-curricular knowledge; teachers should know about other subjects apart from their specialty.” (I⁴¹_03).

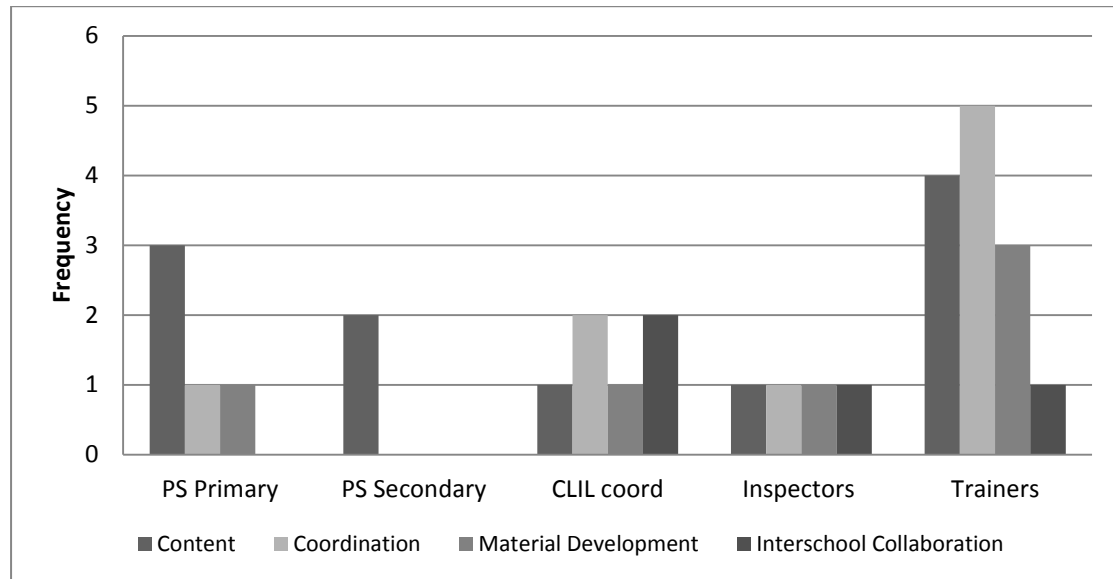


Figure 19. Number of times each new domain was mentioned by each group of stakeholders.

The ideal CLIL teacher has perfect English and has to be specialist on the content subject. Moreover, he has a third aspect: the methodology, because being proficient in the foreign language and the content is not enough. (S_01).

However, stakeholders did not believe content knowledge, language and methodology were sufficient for CLIL success and sustainability. In this sense, they believed that developing **coordination competence** was necessary to implement a project in which two subjects, which had been traditionally taught separately, could be successfully integrated. “Teachers need capacity to coordinate because teachers don’t necessary know the other subject. Thus, they need teamwork and coordination capacity.” (I_03).

Stakeholders, especially CLIL coordinators and teacher trainers, believed that **material development competence** was also necessary for a CLIL teacher. Knowing how to access, adapt and create teaching resources for CLIL learning is essential due to the scarcity of available CLIL materials. “To know how to create classroom materials. People are used to using the book or the materials other people have created, but they never have time to create their own.” (T_03).

Finally, four stakeholders (two CLIL coordinators, one teacher trainer and one inspector) reported **interschool collaboration** as a necessary competence for CLIL teachers so as to know how to share and disseminate good practices with the educational community.

⁴¹The capital letters stand for: S: pre-service primary teacher; MA: Pre-service secondary teacher; T: Teacher Trainer; I: Inspector; CC: CLIL Coordinator.

6.1.2. Pre-Service Foreign Language Teachers' Training Needs

The second aim of this study was to explore pre-service language teachers' training needs regarding CLIL competences. Pre-service teachers were asked to assess, using Peacock's (2009) questionnaire, the CLIL training received and their perceived training needs. Different items of this instrument referred to the same competence. The consistency of the items that measured the same competence was assessed using Friedman's Two-Way Analysis test. Since no main effect of item was found, a single value for each competence (communicative, self-reflection, classroom management and methodological competence) was calculated (Table 78).

Table 78. Medians of the perceived training needs regarding each competence analysed.

	Communicative Competence	Self-reflection Competence	Methodological Competence	Classroom Management Competence
Pre-service primary teachers	5.5	5	5.4	5.5
Pre-service secondary teachers	6	5.33	5.6	5.5

Another Friedman's Two-Way Analysis was run in order to explore whether pre-service teachers perceived different training needs for each competence. The results suggested that there was not a main effect of training need for pre-service secondary teachers ($\chi^2(3)=5.478$, $p=.479$, $W=.08$), but there was a significant main effect of training need for pre-service primary teachers ($\chi^2(3)=9.980$, $p=.019$, $W=.17$). The pairwise comparisons revealed that there was a significant difference between the training needs reported for language and self-reflection competences ($p=.05$), but not between the others. Apparently, pre-service primary teachers seemed to perceive that their training needs for communicative competence were higher than for self-reflection. This perception could partially explain the previous findings that indicated that communicative competence was believed to be more relevant than self-reflection. On the other hand, the different perceptions of pre-service primary and secondary foreign language teachers could be due to the training received or they experience in classroom settings.

An across group analysis between pre-service primary and secondary language teachers was carried out in order to explore differences in their perceived training needs. Several Mann-Whitney U tests were run so as to observe any possible differences. The results showed no

significant differences in language (Mdn. 6 vs. Mdn. 5.5 respectively; $U=199.500$, $z=-271$, $p=.786$, $X=.025$), self-reflection (Mdn. 5.33 vs. Mdn.5 respectively; $U=173$, $z=-1.162$, $p=.245$, $X=.12$), methodological (Mdn. 5.6 vs. Mdn. 5.4 respectively; $U=201.5$, $z=-.436$, $p=.663$, $X=.09$) and classroom management (Mdn. 5.5 vs. Mdn. 5.5 respectively; $U=196.5$, $z=-.576$, $X=.05$, $d=.15$) training needs.

A Mann-Whitney test was run to know how pre-service teachers perceived their CLIL qualification. The results suggested that pre-service secondary teachers considered they were significantly less qualified for CLIL teaching than pre-service primary teachers (Mdn. 1 vs. Mdn. 3.5 respectively; $U=384.5$, $z=3.907$, $p<.001$). Apparently, the introductory course to CLIL teaching had a positive effect on pre-service primary teachers because they felt significantly more qualified. Additionally, the overall training received for primary and secondary teachers was completely different, what could explain these different perceptions.

The training needs of pre-service foreign language teachers were further explored through the analysis of the qualitative data obtained in the open-ended questions from the questionnaire and the interviews. Training needs relative to eight different competences were reported. These competences were the four initially analysed (communicative, self-reflection, methodological and classroom management competences), as well as the four domains reported by stakeholders (coordination, interschool collaboration and materials development competences and content knowledge).

As for **communicative competence**, stakeholders mainly reported two different training needs (Figure 20). The training need reported the most was pre-service teachers' insufficient foreign language proficiency (29 references⁴² out of 62). In general, it was believed that pre-service teachers had an incomplete mastery of the foreign language to teach curricular content through an additional language. The second need identified was the lack of language awareness and pedagogical knowledge to scaffold and adapt the foreign language to students' level. "They [pre-service teachers] lack fluency in order to deliver lessons successfully. It is hard for them to adjust explanations to different levels, to explain concepts simply and efficiently, to paraphrase, to offer good examples, etc." (T_10). However, this training need was mainly reported by teacher trainers (9 out of 10 teacher trainers). Thus, the findings suggest that the main limitation in terms of communicative competence was language proficiency. However, it could also be that participants perceived that knowing the language was more important in a CLIL setting than knowing how to teach the language.

⁴² Number of times this need was reported.

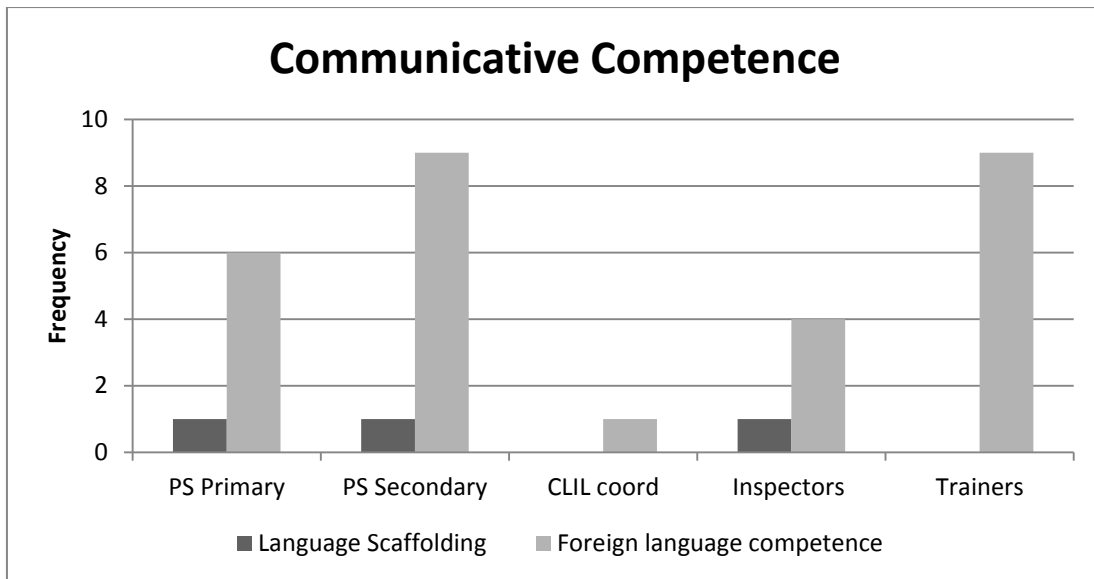


Figure 20. Training needs relative to communicative competence according to the stakeholders.

Methodological competence was the domain in which considerable training needs were identified (Figure 21). One of the needs relative to this domain was the insufficient comprehension of what integration meant and what implications it had for the teaching practice. “The most important training need is to comprehend that you are not doing English [...] you are teaching a subject” (T_01). Related to this first need, stakeholders perceived that more training should be provided regarding CLIL methodology, learner-centred methodologies (project-based learning, problem-based...) and collaborative learning: “Methodologies where the importance is on the task not on teachers’ talk: projects, collaborative tasks...” (I_02). “Specific instruction on CLIL methodology.” (MA_01).

Even though previous literature had identified **classroom management** and **self-reflection competences** as important domains for a CLIL teacher, stakeholders barely mentioned training needs relative to these two competences when they were not asked about them. Consequently, it could be that participants perceived that CLIL teachers mastered these two competences, but also that they did not believe that classroom management and self-reflection were as relevant for a CLIL teacher as other domains. However, stakeholders did report training needs relative to content knowledge, teamwork, interschool collaboration and material development competences. Regarding **interschool collaboration competence** (Figure 22), it was believed that teachers should, first, become aware of the need of sharing good CLIL practices and experiences and, second, know how to disseminate this information in an informal and formal way to the educational community. “Capacity to disseminate what you are doing in the classroom with other schools.” (T_01).

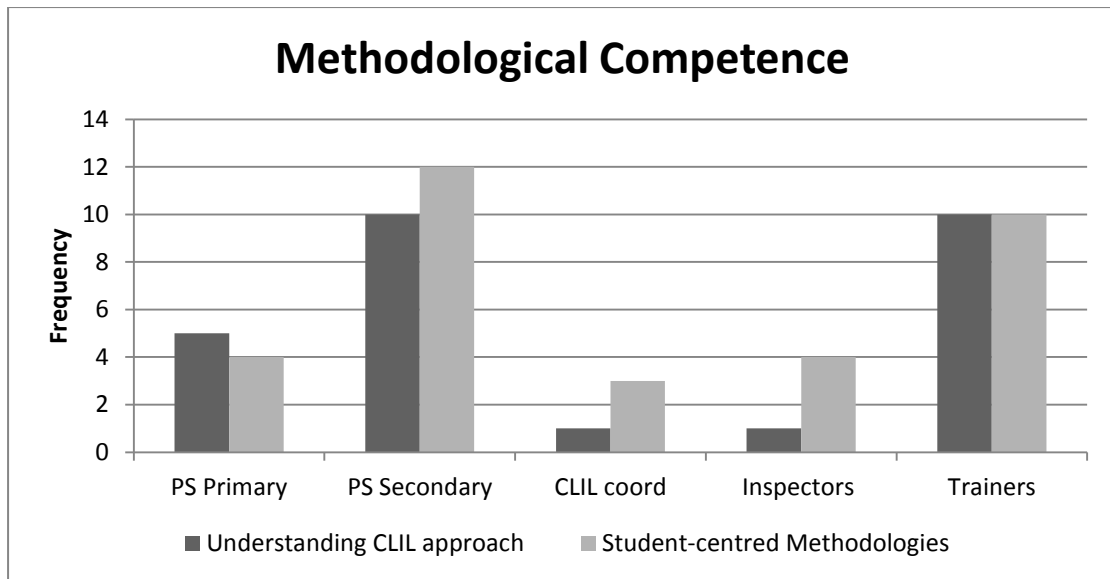


Figure 21. Training needs relative to methodological competence according to the stakeholders.

To visit and get to know schools that follow CLIL methodology; to have experienced CLIL teachers as Master's teachers so that we can have an opinion on it from a practical perspective. (MA_07).

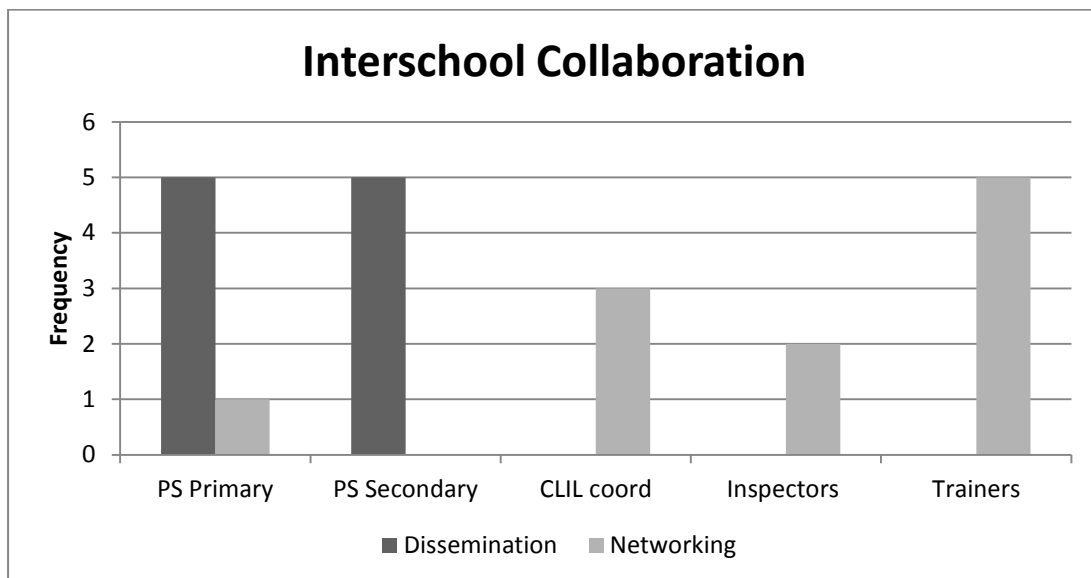


Figure 22. Training needs relative to Interschool Collaboration Competence according to the participants.

Participants also reported training needs for **coordination competence**. Stakeholders mainly perceived two training needs relative to this domain: not having enough collaborative experience, as well as the absence of structures and institutional support to enable this coordination and cooperation to occur (Figure 23). “If there isn’t collaboration between the teaching staff, the results won’t be obtained [...]. As CLIL is being developed now, students’ results are anecdotal.” (T_04).

You realise that when there is a teacher that really wants to do it [CLIL], but the rest of the colleagues either don't know how to do it or don't help him, the teacher is alone and the project eventually disappears. It is very difficult to do it on your own. (I_03).

As for the **content knowledge**, the main need indicated was the lack of knowledge in a specific field of knowledge, but also a lack of general cultural knowledge. This need was the result of teachers' specialisation that, at the end, built up curricular barriers for the integration of different subjects (Figure 24). "Secondary teachers' specialisation makes teaching a content subject in English difficult. However, there are some exceptions of content teachers that are proficient in a foreign language." (I_03).

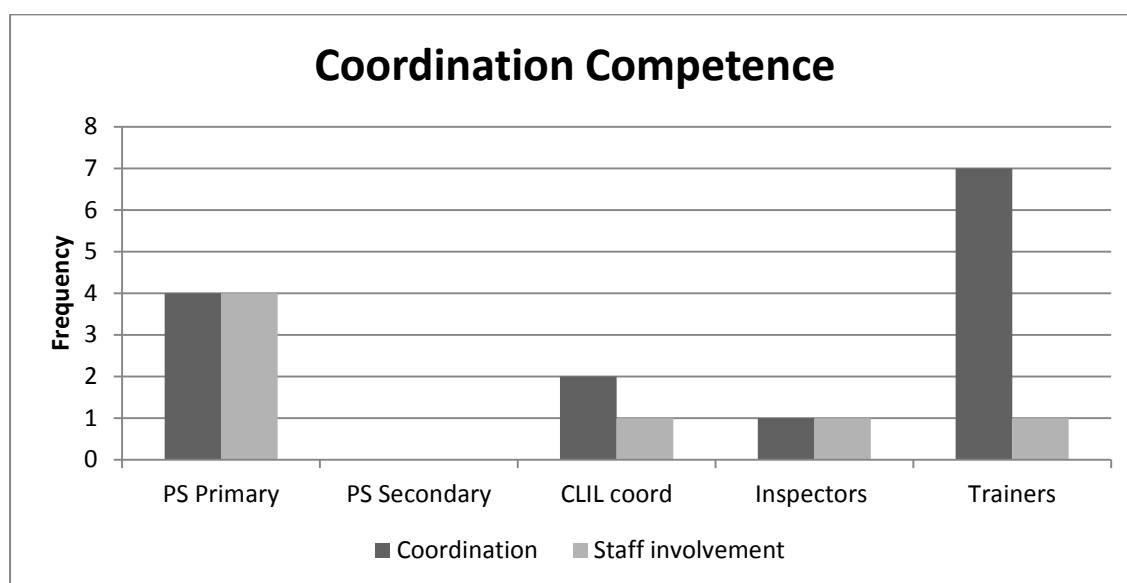


Figure 23. Training needs relative to Coordination Competence according to stakeholders.

Finally, **material development competence** was another domain where training needs were reported. Two different training needs were highlighted: first, not knowing how to access and adapt the already existing materials for CLIL teaching and learning. That is, what should be considered in order to decide whether already existing materials were adequate for the educational purposes established in terms of content and language. Second, the same problem appeared for material creation. "They [Students] also need to improve their competence in relation to the selection, adaptation and creation of activities, materials and resources." (T_10).

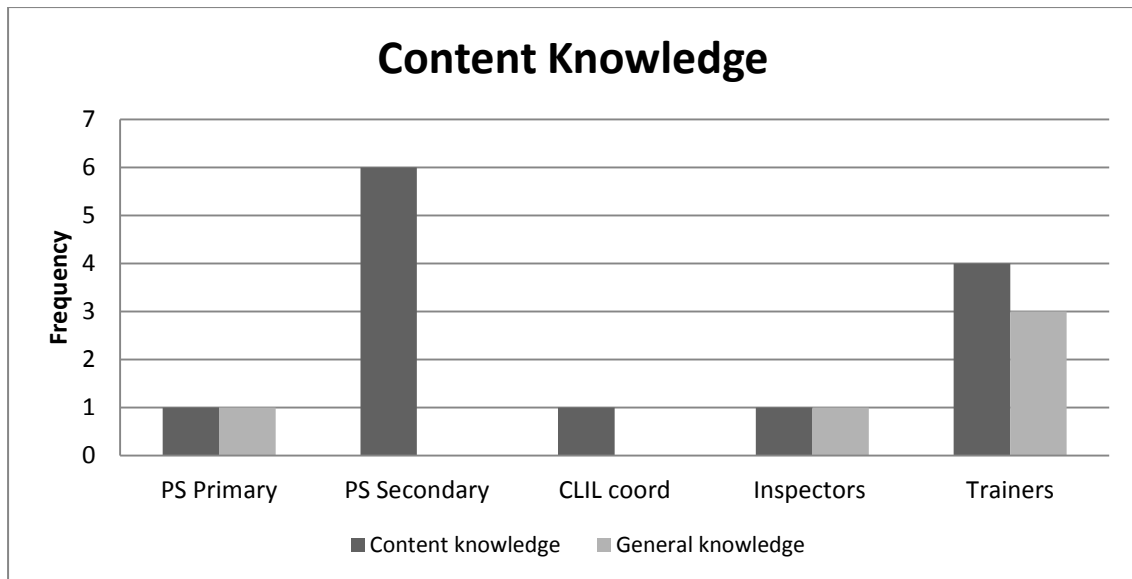


Figure 24. Training needs for Content Knowledge according to stakeholders' perceptions.

Overall, pre-service language teachers, teacher trainers, CLIL coordinators and inspectors mainly reported training needs for two of the competences initially analysed: communicative and methodological competences. However, the needs for these two domains appeared to be considerable. This could be explained because these two domains had been considered to be key for good CLIL teaching. Nevertheless, it is surprising that pre-service secondary foreign language teachers perceived they had training needs relative to language knowledge because they had a degree on English studies. On the other hand, participants also identified training needs for interschool collaboration, teamwork and material development competences and content knowledge.

6.1.3. Across-group Comparison of the Competences and Training Needs Identified

The third aim of this study was to explore whether pre-service foreign language teachers, teacher trainers, education inspector and CLIL coordinators had different perceptions regarding CLIL teachers' competences and training needs. For this reason, first, the perceived relevance of the competences will be compared. Second, the different training needs identified by the stakeholders will be matched.

In terms of competence relevance, a Kruskal-Wallis test showed a non-significant main effect of group (pre-service primary vs. pre-service secondary language teachers vs. teacher trainers, inspectors and CLIL coordinators) for communicative ($H(4)= 1.545, p=.819, W=.03$), self-reflection ($H(4)=8.383, p=.079, W=12$), methodological ($H(4)=1.131, p=.889, W=.025$) and classroom management competences ($H(4)=1.351, p=.853, W=.026$). Therefore, all participants

perceived these competences to be equally relevant for a CLIL teacher. Nevertheless, self-reflection appeared to be perceived as less relevant than the other competences, especially for teacher trainers, inspectors and CLIL coordinators. However, differences between groups appeared in the qualitative data, as Figure 19 show. While pre-service teachers, especially secondary teachers, mainly reported content knowledge as a characteristic of a good CLIL teacher, teacher trainers, inspectors and CLIL coordinators, apart from this domain, also referred to coordination, material development and interschool collaboration. However, while inspectors mentioned interschool collaboration, coordination, material development competences and content knowledge as a characteristic of a CLIL teacher, CLIL coordinators and teacher trainers mainly referred to coordination.

Regarding the training needs identified, variations were found between groups. For instance, pre-service teachers, teacher trainers, inspectors and CLIL coordinators concurred in identifying **communicative and methodological competences** as the two domains where considerable training needs were found (Figure 20). However, all groups agreed on perceiving language proficiency as the main need in terms of communicative competence, although teacher trainers also reported training needs for language pedagogical knowledge. Interestingly, opinions varied for **methodology** (Figure 21). Teacher trainers and pre-service teachers referred to the insufficient understanding of CLIL approach as an important training need. Nevertheless, teacher trainers, inspectors and CLIL coordinators were the only ones who highlighted the lack of training regarding collaborative and learner-centred methodologies.

As for **interschool collaboration**, teacher trainers, inspectors and CLIL coordinators considered that CLIL teachers needed to become aware of the importance of sharing experiences with other schools implementing CLIL (4 references out of 18). However, pre-service teachers believed that real good CLIL practices should be provided during initial teacher education (10 references out of 44 pre-service teachers). Interestingly, trainers and CLIL coordinators perceived that the educational administration limited interschool collaboration (Figure 22). Different opinions could also be found for **coordination competence**. While teacher trainers, inspectors and CLIL coordinators considered teachers tended to work independently and they did not think collaboration was crucial in CLIL programmes (4 references out of 18), trainers and pre-service primary teachers (6 references out of 29) believed school organisation was a barrier for cooperation among teachers (Figure 23). Interestingly, pre-service secondary teachers did not perceive that they had training needs for coordination. This finding could be result of their lack of experience in secondary schools.

In the case of the **content knowledge domain**, teacher trainers, inspectors and CLIL coordinators considered the lack of content knowledge as a limitation for CLIL success. Finally, different opinions could be found for **material development**. This was the domain that worried teacher trainers and coordinators the most. While pre-service primary teachers were concerned with the availability of teaching materials (10 references out of 19), trainers and coordinators were concerned with the creation and adaptation of teaching materials (6 references out of 13). Overall, the across group comparison reinforced that language and methodology were the two domains where considerable training needs were perceived.

6.1.4. Results' Summary

The analysis of pre-service primary and secondary foreign language teachers, as well as teacher trainers, education inspectors and CLIL coordinators' perceptions showed that these stakeholders were **reluctant to say that a competence was not relevant**. In general, the participants believed that communicative, methodological, classroom management and self-reflection were important for a CLIL teacher. However, a deeper analysis of the results revealed that **self-reflection competence was believed to be less relevant than the other three competences**. Interestingly, respondents mentioned other domains apart from the initially analysed. These domains were **coordination, interschool collaboration and material development competences, as well as content knowledge**.

Training needs were identified for the initially analysed competences in the study and the ones pointed by the participants. Nevertheless, **training needs appeared to be considerable for communicative and methodological competences**. In fact, quantitative results suggested that the training needs for communicative competence were deeper than for self-reflection competence. However, pre-service primary and secondary teachers barely mentioned training needs for classroom management and self-reflection in the open-ended data.

Even though pre-service primary and secondary teachers reported similar training needs, primary student teachers perceived they were more qualified for CLIL teaching and learning than their secondary counterparts. **Different training needs were reported depending on the participants' profile**. For instance, while pre-service teachers focused on content knowledge training needs, teacher trainers, education inspector and CLIL coordinators also focused on coordination, interschool collaboration and material development competences. These differences could be explained by their professional profiles, but also by the place they occupy in the educational system.

Participants' different perceptions have different implications. First, all voices have to be considered when designing a CLIL training course and analysing CLIL teacher education. Second, it could be believed that training programmes are addressing these needs, whereas trainees do not. Therefore, planned and systematic evaluation of CLIL teacher training programmes is paramount. If training programmes are to be effective, their design should be based on prescriptions (the needs of the educational system), but also on participants' needs.

6.2. Results Study 2: In Service Teachers' Training Needs

The aim of the qualitative meta-analysis was twofold. On the one hand, it sought to identify the main training needs reported by in-service primary and secondary CLIL teachers. On the other hand, it aimed to explore whether in-service CLIL teachers' training needs varied according to the teachers' experience in CLIL teaching and learning. To this end, seven studies were systematically reviewed. The training needs identified for in-service teachers will be reported first and then they will be compared in terms of in-service teachers experience in CLIL teaching and learning.

6.2.1. In-Service Teachers' Training Needs

The first aim of the study was to identify the training needs of in-service CLIL teachers with regard to CLIL teaching and learning. Training needs were identified for seven of the established competences in *The European Framework for CLIL Teacher Education* (Marsh et al., 2010): CLIL fundamentals; content and language awareness; methodology and assessment; research and evaluation; learning resources and environments; classroom management; and CLIL management. Note that not all the studies reported all the training needs identified in the meta-analysis, as appendix 30 shows. A possible explanation is that some studies sought to explore certain specific training needs directly and, therefore, all their data collection instruments addressed those particular domains. Another explanation is that different training, context and experiences could affect teachers' perceived training needs.

Almost all the studies concur in recognising **CLIL fundamentals** as a training need. Teachers mainly perceived that CLIL's underpinnings could provide them with a solid background and foundation to develop their teaching practice. These theoretical fundamentals involved both second language acquisition theory and learning theories.

Most of these teachers believe that they need more theoretical knowledge, but 30% think they learn more from everyday experience or from their colleagues' experiences. They do not think that what they need can be taught. Some also think second language teaching methodology can be extrapolated to bilingual teaching. (Pena-Díaz & Porto-Requejo, 2008, p. 158)

Language and content awareness was repeatedly reported by all studies as a domain where more training was necessary. In general, in-service teachers considered that they should improve their foreign language competence and that this improvement would have a positive impact on both their teaching and students' learning. The urgent need for foreign language mastery was felt more strongly by content teachers who were implementing CLIL. "Significant differences emerge on absolutely all linguistic items [...] always to the detriment of content teachers, who invariably evince the lowest level in this initial [linguistic and intercultural competence] block." (Pérez-Cañado, 2016, p. 284).

In terms of **methodology and assessment**, the primary training need to be identified was a lack of specific methodologies and resources for CLIL teaching and learning. This finding was consistent in all studies. The main reported idea was that CLIL entailed a change in the way content and language had been traditionally taught and learnt. Therefore, CLIL training should provide sound theoretical and practical knowledge on how teachers could adapt to the new teaching approach. Indeed, CLIL training should be a model of CLIL. Most in-service teachers had only received general bilingual methodology courses. However, such previous training tended to be more general and not specific to content and language integration. "Bilingual education training does not consist of improving trainee teachers' linguistic competence; rather, it trains them in the methodological changes involved in bilingual education" (Fernández-Fernández et al., 2005, p.168). "Handling pair/group work activities in large classes and implementing higher-order thinking skill activities represented challenges to the participants" (Diem Trang & Thanh Nga, 2015, p. 94).

With regard to methodology and assessment, training needs for CLIL assessment were highlighted. The needs for CLIL assessment were only identified in the studies by Di Martino and Di Sabato (2012) and Truscott de Mejía et al. (2012). Practitioners reported their concerns regarding how to assess the two areas both separately and together so as to observe how the development of one area helped to achieve the other one rather than delaying it. A related implicit concern was which subject required greater weight during assessment and whether the teacher's specialisation in one of the subjects should be used as a criterion.

Pérez-Cañado's (2016) study was the only one to report a lack of knowledge among in-service teachers about **classroom-based inquiry**. The study reported a need for updating information on the latest results from CLIL research, journals and books, as well as on research terminology. As for **classroom management** (Truscott de Mejía et al., 2012; Cabezuelo-Gutiérrez & Fernández, 2014; Diem Trang & Thanh Nga, 2015), the main concern was how to manage students'

motivation towards both content and language learning. This was more evident in the case of students with a lower learning level, whom teachers were worried not to leave behind (Cabezuelo-Gutiérrez & Fernández-Fernández, 2014).

Some of the analysed studies reported training needs for **CLIL management** to carry out institutional capacity building. These training needs mainly related to school organisation: how to start a programme and how to organise teachers, schedules, space or contents in order to implement and develop a CLIL project. “One of the aspects that need more attention is the lack of detailed information about how to start and structure the project; therefore, the recommendation is to establish greater contact with schools where a bilingual programme has already been implemented” (Fernández-Fernández et al., 2005, p.168).

Probably, because of the lack of specific information on how to start and implement a project such as CLIL, in-service teachers reported a need for training on how to collaborate and coordinate with their colleagues and other schools engaged in implementing and developing CLIL programmes. This also entailed a better relationship between content and language teachers since, in most cases, CLIL was implemented using a team-teaching format. In fact, one study reported collaboration problems due to a rivalry between content and language teachers (Truscott de Mejía et al., 2012). “With regard to the type of training they need to teach bilingual classes [...], 30% would like to see what other colleagues do, either at their own school or in different bilingual or English/international schools” (Pena-Díaz & Porto-Requejo, 2008, p.158).

A rivalry was noted between language and content teachers. The former found it difficult to come to grips with the concepts and knowledge that had to be taught through English in the different content areas, while the latter wanted to ensure that the objectives of a particular subject area were covered. (Truscott de Mejía et al., 2012, p. 35)

In general, practitioners considered they should be provided with ongoing developmental training (Di Martino & Di Sabato, 2012; Truscott de Mejía et al., 2012; Cabezuelo-Gutiérrez & Fernández-Fernández, 2014; Pérez-Cañado, 2016; Diem Trang & Thanh Nga, 2015), ideally CLIL-specific in nature (Pena-Díaz & Porto Requejo, 2008) with some periods spent abroad to improve language competence (Di Martino & Di Sabato, 2012; Pérez-Cañado, 2016).

6.2.2. Comparison of the Identified Training Needs

The second aim of the meta-analysis was to compare the training needs of in-service teachers who had CLIL experience with those who had little or none. For this purpose, the training needs identified by in-service teachers with experience and by those without will first be analysed

separately. Then the training needs reported by the two groups will be contrasted. Table 79 summarises the training needs reported by each study and by each group of teachers. According to the previous classification of teachers’ professional life cycle (Huberman, 1989), inexperienced CLIL teachers will be defined as those with less than three years of CLIL teaching practice, whereas experienced CLIL teachers will be those with more than three.

Table 79. *Training needs reported in each study.*

Meaning categories	Codes	Experienced teachers			Inexperienced teachers			
		Cabezuelo & Fernández (2014)	Pérez-Cañado (2016)	Truscott de Mejía et al. (2012)	Fernández-Fernández et al. (2005)	Pena and Porto- (2008)	Di Martino (2012)	Diem-T and Thanh- (2015)
CLIL Fundamentals	CLIL theory		X		X		X	
	L2 Acquisition				X	X		
Methodology and Assessment	CLIL methodology	X	X	X	X	X	X	X
	CLIL assessment			X			X	
Research and Evaluation			X					
Learning resources & environments	Material preparation		X	X	X	X		X
	ICT resources		X					
Classroom management		X		X				X
CLIL management	School organisation				X	X	X	
	Collaboration and coordination			X		X		
	Interschool organisation					X	X	
Language and Content Awareness	Foreign language skills	X			X	X	X	X
	Foreign language scaffolding	X	X	X				

6.2.2.1. Training Needs of Experienced CLIL Teachers

The meta-analysis includes three studies on the training needs of experienced CLIL teachers: Truscott de Mejía et al. (2012), Cabezuelo-Gutiérrez and Fernández-Fernández (2014) and Pérez-Cañado (2016). These studies reported training needs for all the identified competences. However, there were only two competences for which all the experienced teachers perceived training needs: language awareness and methodology. Two other training needs reflect agreement between two of the three studies: learning resources and environments (Truscott de Mejía et al., 2012; Pérez-Cañado, 2016) and classroom management (Truscott de Mejía et al., 2012; Cabezuelo-Gutiérrez & Fernández-Fernández, 2014). For all the other perceived needs, there was no agreement among the studies.

The differences may be explained by previous training, personal beliefs, teaching experiences and contextual factors. Nonetheless, the analysed data appears to indicate that the training needs are not endemic to a particular education system, despite the differences presented in each individual study. Therefore, developmental CLIL training should consider both the general concerns and the possible differences among experienced teachers.

6.2.2.2. Training Needs of Inexperienced CLIL Teachers

Four studies were included within the group of inexperienced CLIL teachers: Fernández-Fernández et al. (2005), Pena-Díaz and Porto-Requejo (2008), Di Martino and Di Sabato (2012) and Diem Trang and Thanh Nga (2015). The participants in the four studies reported training needs for all the analysed competences except research and evaluation. All four studies concurred in identifying training needs for CLIL fundamentals, CLIL methodology, CLIL management and language awareness. This is especially the case with CLIL methodology and language since all the studies identified them regardless of the moment when the study was conducted (there is an 11-year span) or the context (Spain, Italy or Vietnam).

As for **CLIL fundamentals**, in-service teachers reported training needs for both CLIL theory (Di Martino & Di Sabato, 2012; Fernández-Fernández et al., 2005) and second language theory, but the latter was only identified by the two studies analysing Spanish teachers (Fernández-Fernández et al., 2005; Pena-Díaz & Porto-Requejo, 2008). However, in the case of **methodology**, all studies concur that more training is needed. Interestingly, there is no special reference in any study on how to integrate content and language. On the other hand, in terms of CLIL management, the three European studies find that inexperienced CLIL practitioners need more training on school organisation (mainly how to start a CLIL project), but the results are less conclusive in terms of colleagues and interschool collaboration. Note that Vietnamese teachers did not report any training need in this domain. A possible explanation is that they are culturally used to working either collaboratively or in isolation. Finally, CLIL practitioners from the four studies agree on their need for further foreign language training to obtain greater language mastery.

Interestingly, the analysis reveals that there are two competences where there is an agreement between the two studies analysing in-service CLIL teachers that have received initial CLIL training but have not yet started teaching in CLIL settings (Fernández-Fernández et al., 2005; Pena-Díaz & Porto-Requejo, 2008). These two competences are **learning resources** and **classroom management**. As for the former, both studies report training needs, whereas no training needs are mentioned for the latter. Therefore, the presence and absence of perceived training needs

may be due to their inexperience and lack of knowledge of the challenges they will face. The context may offer another explanation, since both studies analyse Spanish teachers. Another explanation is that teachers' beliefs could be determined by the training received, both initial and ongoing training, as well as their experience and the institutional context where they develop their professional practice.

Less conclusive findings can be deduced from the analysis of in-service teachers with little CLIL experience (Di Martino & Di Sabato, 2012; Diem-Trang & Than-Nga, 2015). These differences may be the result of the different contexts analysed (Italy and Vietnam), but also of the training received. All in all, possessing little or no experience in CLIL settings does not appear to have a major impact on perceived training needs.

In short, the analysis of inexperienced CLIL teachers' perceptions of training needs reveals that initial CLIL teacher training for in-service teachers should focus on CLIL fundamentals, CLIL methodology, foreign language skills, materials development and project management.

6.2.2.3. Comparison of Experienced and Inexperienced CLIL Teachers' Training Needs

Two training needs were reported by all the analysed studies, regardless of the amount of teaching experience in CLIL settings or the context. They were CLIL methodology and language awareness. In the case of **methodology**, the concerns and training needs expressed by in-service teachers were constant over time. As for **foreign language awareness**, despite being reported by all the studies, practitioners' needs appeared to change with experience. That is, in Fernández-Fernández (2005), Pena-Díaz and Porto-Requejo (2008), Di Martino and Di Sabato (2012) and Diem-Trang and Than-Nga, (2015), in-service practitioners believed they needed to achieve greater fluency and acquire a certain level of foreign language skills in order to teach their lessons. On the other hand, in-service teachers in Cabezuelo-Gutiérrez and Fernández-Fernández (2014), Pérez-Cañado (2016) and Truscott de Mejía et al. (2012), who reported having a higher level of language competence and more teaching experience in CLIL settings, considered they needed further language pedagogical knowledge in order to adjust their language to the students' level and comprehension (language scaffolding). Thus, they were less worried about increasing their language competence than about making better use of it. Teaching experience, therefore, did appear to have an effect on the type of training teachers were requesting for communicative competence. Interestingly, the difference between inexperienced and experienced teachers remained constant in different contexts and over time.

Competence in **CLIL fundamentals** was reported only by the studies that included European teachers. Consequently, it could be that pre- and in-service education is not providing sufficient

theoretical grounding. In addition, CLIL teaching experience did not appear to be fulfilling this need. Some of the participants in the studies requested more training on second language acquisition theories (Fernández-Fernández et al., 2005; Pena-Díaz & Porto-Requejo, 2008), while others wanted more training on CLIL's underpinnings (Fernández-Fernández et al., 2005; Di Martino & Di Sabato, 2012; Pérez-Cañado, 2016). The difference could be explained by previous training.

The data suggested that some training needs were reported at the beginning of CLIL implementation but disappeared over time. This was clearly the case with **CLIL management**. In Fernández-Fernández et al. (2005), Pena-Díaz and Porto-Requejo (2008) and Di Martino and Di Sabato (2012), in-service teachers reported training needs regarding school organisation. However, the participants in Cabezuelo-Gutiérrez and Fernández-Fernández (2014) and Pérez-Cañado (2016) did not mention the need at all. In the case of Pena-Díaz and Porto-Requejo (2008) and Di Martino and Di Sabato (2012), in-service practitioners asked for more training related to collaboration between schools implementing CLIL. The need also appears in Truscott et al.'s (2012) study due to the rivalry between content and language teachers. Nevertheless, CLIL teaching experience appears to have a positive effect on knowing how to manage CLIL projects at the school level.

In-service teachers reported training needs on **learning resources** due to the scarcity of available CLIL materials. However, note that this need was reported alike by inexperienced teachers (Fernández-Fernández et al., 2005; Pena-Díaz & Porto-Requejo, 2008; Diem Trang & Thanh Nga, 2015) and experienced ones (Pérez-Cañado, 2016; Truscott de Mejía et al., 2012). Experience in itself may not be enough to improve the materials development competence of in-service teachers. Therefore, specific training in this domain appears to be necessary, especially because teaching and learning materials are the resources teachers and students can count with to support content and language learning.

The tendency described by experienced and inexperienced teachers is supported by Fernández-Fernández et al., (2005) and Cabezuelo-Gutiérrez and Fernández-Fernández (2014), since the two studies were carried out by the same two researchers in the same context. The former, which included the perceptions of inexperienced teachers, reported training needs for CLIL fundamentals, methodology, materials preparation, school organisation and foreign language skills, whereas the latter, in which the practitioners had experience, reported training needs relating to methodology, classroom management, foreign language skills and language scaffolding.

6.2.3. Results' Summary

The analysed studies highlighted **training needs that revolved around seven competences**. The competences reported by all the studies were **methodological and communicative**. Apart from these two major areas of concern, in-service teachers were also worried about CLIL management, CLIL fundamentals, learning resources, classroom management and received training. Finally, a less explored competence in relation to the training needs of CLIL teachers, namely, research and evaluation, appears to be emerging as a domain that should be trained and developed.

However, two relevant aspects must be highlighted: on the one hand, **experience may be enough to solve some, but not all, of the training needs** identified by inexperienced teachers (CLIL fundamentals and CLIL management). On the other hand, regardless of their experience and context, **all participants believed they needed more training on foreign language competence and CLIL methodology**.

6.3. Results Study 3: School Management Teams' Perceptions

The third study had several aims. On the one hand, it aimed to analyse the perceptions of school management teams from Catalan primary schools' about their qualification and training needs for CLIL implementation, as well as their perception regarding teachers' qualification for CLIL. On the other hand, this study intended to comprehend how CLIL had been implemented in their schools, what organisational conditions had favoured this process and how the school management teams assessed the implementation process. To this end, a close-ended questionnaire (n=54) and a semi-structured interview (n=7) were used to collect the data. This section presents and integrates the results obtained through both instruments.

6.3.1. School-based CLIL Implementation from School Leaders' Perspective

Reasons for Implementing CLIL

According to the school leaders participating in the semi-structured interviews, CLIL was decided to be implemented namely for two reasons: to increase the amount of English hours and to improve students' results in the external exams. In general, school management teams believed that CLIL enabled to **increase the exposure to the additional language** without jeopardising other curricular subjects. "The external exams' results for foreign language were the lowest. Thus, we started a reflection process in which we thought what we could do in order to improve students' foreign language." (SMT2). As for increasing the exposure, "we realised that the curricular hours for English subject weren't enough. [...] So, we implemented CLIL to expose our

students to the maximum number of hours to a language that is not present in their environment” (SMT3). Regarding to language learning, some school management teams considered that CLIL offered the possibility **to learn English in context**: “We taught English, but we thought that that English should be more contextualised, shouldn’t it?” (SL6).

Another less common reason why schools decided to implement CLIL was because of **social demands**. Some schools realised that English is more present in social life and professional careers. Additionally, some families requested a greater focus on the additional language. “It [CLIL implementation] was like a social demand, even a trend. It was a demand and it has been welcomed by families” (SL7). “Since English is becoming more necessary, we saw it [CLIL] as a good opportunity to increase the English language sessions, because this is a demand, isn’t it? Now, the universities require English proficiency, something that didn’t occur some years ago” (SL6).

Finally, a school leader made reference to the **ethical commitment** schools have. That is, she believed that schools should reduce the gap between students’ due to their socioeconomic and cultural differences. Indeed, the educational system should provide the best choice for students from deprived areas so that they could accelerate their learning.

Some pupils can study English outside of the school hours, excellent!, but some students, as the ones we have, can’t go to these afterschool activities because of economic reasons. Then, they don’t have any contact with English language outside the school. [...] If you can counterbalance this by offering more English hours in the school, this is an advantage for them. (SL6).

In sum, although the main reasons why CLIL was implemented were to increase students’ exposure to English and improve students’ English results, school leaders also referred to the social demands and students’ social differences as other causes to start a CLIL project.

CLIL Conceptualisation

The reasons why a school decided to implement CLIL were closely linked to how CLIL was conceptualised. The analysis of the semi-structured interviews showed that two out of the seven school leaders interviewed conceptualised **CLIL as the integration of content and language**. “We agreed several actions to integrate content and language. For instance, all the topics, objectives and contents that we were teaching had to be interrelated.” (SL4). “At the primary level, you have to strip the content of language so that language can’t be a barrier for content learning.” (SL3).

Three of the interviewed school leaders conceptualised **CLIL from a language perspective**. That is, the emphasis was on increasing the exposure to an additional language so as to acquire that language. However, no reference was made either to the subject-specific language or the integration of content and language. “For us CLIL is to make students aware of the different languages, their importance, what their mother tongue is...” (SL6). “We basically work reading comprehension and the different types of texts. We were doing it in Catalan and Spanish and now we do it in English, as well.” (SL5).

A third way of conceptualising **CLIL was as a methodology** for teaching and learning languages. “I think CLIL is a methodology that is good for any language and the other subjects. We are in a methodological training that is applicable to any language.” (SL2).

Therefore, the reasons why a school decided to implement CLIL were, consciously or unconsciously linked to how this approach was conceptualised. Indeed, the actions undertaken or stressed were partially explained by this conceptualisation.

Process to Implement CLIL

The narration of the followed processes to implement CLIL showed that there were two different realities. On the one hand, there were some schools that had consciously analysed the situation of their school, motivated the teachers and planned CLIL implementation. On the other hand, another group of schools had followed a more flexible and less planned process to implement CLIL (Table 80).

Table 80. *Actions and strategies carried out by each interviewed school to implement CLIL.*

School	Type of CLIL Implementation	Experience with CLIL implementation	Process
School 1	Flexible and less planned.	More than 5 years.	All teachers have to commit to carry out some lessons or activities in English. Teachers had to prepare a planning that will be assessed each month.
School 2	Needs analysis, teacher motivation and planning of CLIL implementation.	3 years.	Analysis of students' needs. Teachers' motivation and involvement. Establishing CLIL as one of the schools' identification traits. An external group provides support.
School 3	Flexible and less planned.	More than 20 years.	A teacher decided to start CLIL. She had the support of the school management team. The project is institutionalised in the school.

School 4	Needs analysis, teacher motivation and planning of CLIL implementation.	More than 5 years.	A driving group was created. This group was in charge of implementing and making the general decisions. Some general criteria were established.
School 5	Needs analysis, teacher motivation and planning of CLIL implementation.	3 years	Plurilingualism was established as an identity trait in the school's project. The project is planned in the school leaders' project and specified in the annual general planning.
School 6	Less planned.	3 years	The project is implemented in the upper-cycle. There is no reference of the general strategy used to implement the project.

With regard to schools that followed a **planned process**, despite sharing some communalities, each of them had adopted their own process to implement CLIL. The school management team of school number 2 analysed the reality of its context and the possible solutions to overcome it. A second action was to motivate and involve teachers in this project. Once this was achieved, a route map to implement CLIL was planned. This route map determined all the following decisions, such as the use of resources or teacher training, among others. Additionally, this school counted with the support of an external expert and the participation in workshops in which different schools with the same project exchanged their experiences, good practices and challenges.

The first action was to motivate the teaching staff; this was a key element. [...] Then we had to decide how we would implement CLIL. Once these issues were overcome, another transcendental question was teacher training. [...] The important thing is to establish the basic lines, where we want to go. Once you are able to decide these lines, they determine all the other decisions. (SMT2)

A second school, after analysing its needs and selecting CLIL as a possible solution, created a driving group. This group was integrated by different teachers whose main aim was to agree and establish some general criteria to implement CLIL at the school and classroom level.

We created an English commission who had to agree several actions to work towards the same direction. That is, not only all topics, objectives, units had to be interrelated, but also teacher coordination was necessary. The methodological strategies for students' to acquire both content and language were also discussed. (SMT4).

The third school that narrated a planned process to implement CLIL did it through the school's compulsory projects. That is, plurilingualism was established in the school's education project as one of the identification traits and CLIL was the approach to materialise this trait. Then, the head

teacher planned in her four-year project how CLIL would be implemented. Finally, it was specified how CLIL would be carried out each year through the general annual plan.

We specified in the school's educational project the plurilingual approach. This general idea, which is not concreted in the school's project, I tried to concrete it through the four-year head teachers' project. Then, we plan annually what actions we will be developing that year through the general annual planning (SL5).

The three other schools followed a more **flexible and less planned process** to implement CLIL. In one of these schools, the aim was to increase children's exposure to English as much as possible. Each teacher decided individually how and when he would do these lessons. There was a CLIL coordinator whose job was to support teachers and guarantee that these lessons were carried out. However, one of the characteristics of this school is that there was a lack of leadership. "School leaders don't lead, give support to the teachers or coordinate the teachers. They basically control." (SL1). What school leaders controlled was that teachers did the CLIL lessons they had planned in the monthly plans. For this reasons, teachers were asked to record parts of their lessons.

A second school that followed a more flexible implementation had a long experience with CLIL (more than 20 years). The school decided to implement CLIL because a teacher was interested in this approach and started this project with the support of the school management team. With the passage of time, the approach was expanded and started to be applied in different subjects and courses. After so many years, the project had been institutionalised. This explains why CLIL realisation was more flexible in this school since the decisions had already been made in the past and now each teacher decided how to implement CLIL in the classroom.

One of the actions was to train teachers in this methodology. We transferred this methodology and I started to implement it in Science. From here, the new teaching staff has also implemented this approach. We [the teachers] have shared the methodology, the activities, the curricular content to work... Like this. As an oil spot, so to speak. (SL3).

The last school was between a flexible and structured implementation of CLIL. CLIL was carried out in the upper cycle of primary education during an hour per week in Science lessons. No clear reference was made to the decision-making process in terms of curricular integration or organisational changes.

Overall, it seems that some schools implemented CLIL after carefully planning how to do it. Probably, this careful planning was possible because there was a clear leadership that encouraged its implementation and tried to work out the conditions for this to happen, despite

the difficulties. However, other schools followed a more flexible and less leaded process to implement CLIL. Nevertheless, no evidence is available on how the process followed to implement CLIL affects students' learning.

Subjects and Grades Involved in CLIL Implementation

The analysis of the closed-ended questionnaire (n=54) showed that the most **common subjects** selected to implement CLIL are Science (both social and natural science), Arts & Craft, Music and Physical Education (Table 81). While some schools only implemented CLIL in one subject, others established CLIL in different subjects. However, these subjects tended to be a combination of the aforementioned ones. Overall, Science seems to be one of the preferred subjects to implement CLIL.

Table 81. *Subjects in which CLIL is implemented.*

Subject	Number of schools
Science	18
Arts & Craft	7
Physical Education	1
Science and Arts & Craft	11
Arts & Craft and Physical Education	1
Science and Physical Education	3
Arts & Craft and Music	2
Science, Arts & Craft and Physical Education	8
All subjects except language subjects	3

With regard to the **number of hours** per week allocated to CLIL, these vary considerably depending on the school (Table 82). However, it appears that the most common situation in Catalan schools is that 5 or less hours are allocated to CLIL, according to almost 50% of the respondents. It is not that common that more than 10 hours a week are dedicated to CLIL. However, there are a few schools which allocated more than 20 hours to CLIL.

Table 82. *Percentage of schools that dedicate a similar amount of hours to CLIL per week.*

Number of hours dedicated to CLIL	Percentage
<5	47%
6-10 hours	27.45%
11-15 hours	9.80%
16-20 hours	1.96%
>20 hours	13.73%

The **grade** where CLIL is implemented also varies depending on the school (Table 83). The most common levels where CLIL is implemented are: the whole primary education (n=25), followed by

just implementing it in the second and third cycle of primary education (n=12). That is, from year 3 to year 6. Interestingly, when CLIL is not implemented in the whole primary education stage, first cycle students (year 1 and 2) tend not to be involved in CLIL. In addition, apparently, it is not common to implement CLIL in just one grade.

Table 83. *Grades where CLIL is implemented in Catalan primary schools.*

Stage	Students Age	Number of school implementing CLIL in that stage
Just a course.	-	5
Only second cycle	8-10	3
Only upper cycle	10-12	9
Second and third cycle	8-12	12
Primary Education	6-12	25

The CLIL Teacher

It was also explored how teachers were organised to implement CLIL and who tended to be the **CLIL teacher** in primary schools (Table 84). School management teams (n=54) were asked to rate using a 6-points Likert scale who the CLIL teacher was in their school. It was found that, in general, the teacher in charge of CLIL realisation in the classroom was a teacher with a double specialisation (\bar{x} =4.15) followed by the language teacher (\bar{x} =3.54) and the team-teaching of the content and language teacher (\bar{x} =2.94).

Table 84. *CLIL teachers' current profile (mean and standard deviation).*

Language		Language with content support		Content		Content with language support		Team-Teaching		Double specialist	
\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
3.54	2.27	2.24	1.9	2.09	1.94	2.17	1.91	2.94	1.89	4.15	2.00

It was surprising that school leaders reported that a teacher with a double specialisation was namely the one in charge of CLIL because it is rare that primary teachers have a double specialisation. The possible reason why school leaders chose this option is because English teachers receive a general training as primary teachers plus training in English teaching and learning. Additionally, according to the Catalan Education Department, English teachers are regarded as a primary teacher with an English profile. This fact could have led school management teams to select this option.

It was explored whether there was a main effect of teachers' profile through an ANOVA. The result of the repeated measures indicated that **some teaching profiles tended to be significantly**

more common in CLIL teaching at primary level than others ($F(53)=420,712$, $p<.001$, $\eta^2=.89$). The pairwise comparison indicated that the significant differences were between the double specialisation profile and all the other profiles ($p<.001$) except for the language teacher profile. Another significant difference was between the language teacher and the content teacher ($p=.008$), as well as the team-teaching and the language and content teachers with the support of the other specialist ($p=.031$). Therefore, the results suggest that the most common teaching profiles that are currently in charge of CLIL realisation in the classroom are a double specialist, understood as a language teacher that has been trained as a generalist, the language specialist and the team-teaching of content and language teachers. It was further explored whether the current CLIL teacher was determined by the subject where CLIL was implemented, the number of subjects involved and courses. However, none of the comparisons reached significance.

According to the school management teams, there were different **reasons why these teaching profiles were selected**. The main reasons were that these were: a) the teachers more qualified for CLIL (51.7%); b) it was the most feasible option (38.5%); c) it was the most reasonable option to integrate content and language (30.8%); and, d) it was the option that would benefit the most students' learning (28.8%). Teacher selection was also determined by teachers' preferences (7.7%) or the advice the school had received (7.7%). Surprisingly, CLIL teacher's selection tended not to be based on what previous research had pointed as a good practice (3.8%) or what other schools had done (3.8%). Consequently, the selection of the current CLIL teacher is not always aligned with what previous research has pointed.

Table 85. *Ideal CLIL teacher according to school management teams (means and standard deviations).*

Language		Language with content support		Content		Content with language support		Team-Teaching		Double specialist	
\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
2.09	1.77	3.44	2.14	1.69	1.45	3.52	2.2	4.56	2.06	4.19	2.01

It was also explored who **the ideal CLIL teacher** would be according to the school management teams' opinion (Table 85). School leaders' perceptions were also collected through a 6-point Likert scale. According to the results, it seems that the ideal CLIL teacher would not be a single person, but the result of the team-teaching of content and language teachers ($\bar{X}=4.56$). The second ideal CLIL teacher would be a practitioner with a double specialisation in a content and language subject ($\bar{X}=4.19$). Interestingly, the results seem to suggest that school management teams would also prefer that both the language and content teachers had the close support of

the other specialist when they had to implement CLIL in isolation in the classroom rather than doing it by their own.

An ANOVA was conducted to explore a possible main effect of teaching profile. The results of the test indicated that this effect existed ($F(53)=403.573$, $p<.001$, $\eta^2=.88$); that is, **not all teaching profiles were perceived to be equally ideal for CLIL realisation in the classroom**. The pairwise comparisons showed that the significant differences were between the language specialist with all the other profiles except for the content teacher, as well as between the content specialist with all the other profiles except for the language teacher. Both the double specialisation and the team-teaching were preferred in front of all the other options. Therefore, according to the results, the ideal CLIL teacher would be the result of the team-teaching of content and language teachers or a double specialist. Again, no significant differences were found due to the subjects involved in CLIL, the number of hours and courses.

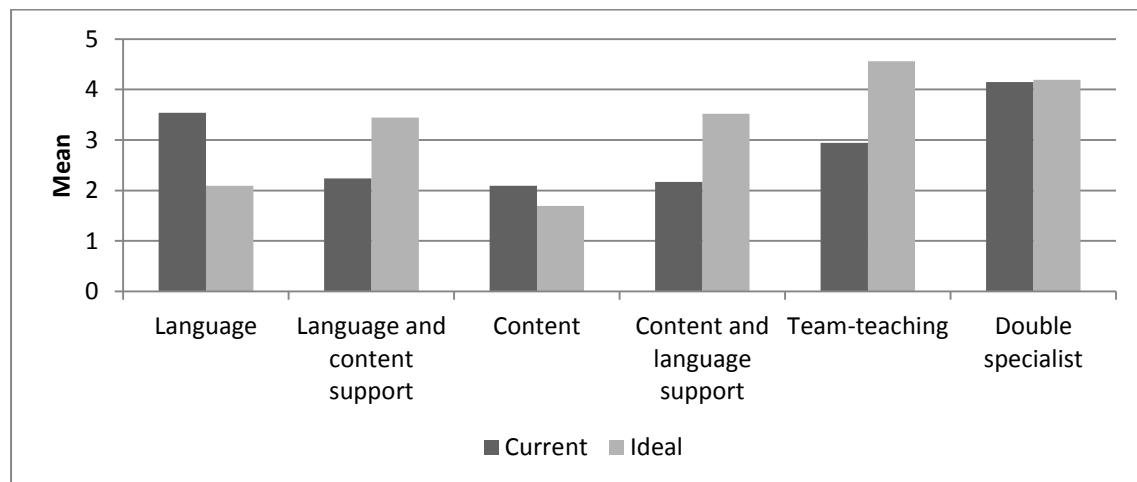


Figure 25. Comparison of the current and the ideal CLIL teacher according to school leaders.

It was analysed whether there were significant differences between the current CLIL teacher and the desired one (Figure 25). To this end, several T-Test were run. Significant differences were found for language teacher ($\bar{X}=3.54$ vs. $\bar{X}=2.09$; $t(53)=4.497$, $p<.001$); language teacher with content teacher’s support ($\bar{X}=2.24$ vs. $\bar{X}=3.44$; $t(53)=-3.630$, $p=.001$); content teacher with language teacher’s support ($\bar{X}= 2.17$ vs. $\bar{X}=3.52$; $t(53)=-4.589$, $p<.001$) and team-teaching ($\bar{X}=2.94$ vs. $\bar{X}=4.56$; $t(53)=-5.486$, $p<.001$). The results seem to indicate that the current CLIL teacher is not the desired one for the school management teams. Apparently, there is a polarisation in terms of who the CLIL teacher should be. Even though it is true that team-teaching and the double specialisation are the preferred options, it is also true that there are some school leaders that prefer the content or the language teachers as CLIL teachers. These preferences may be determined by how CLIL is understood.

School-based Changes due to CLIL Implementation

School management teams were asked to rate with a 6-point Likert scale (1- completely disagree, 6-completely agree) the organisational modifications they had to conduct when CLIL was implemented in their school (Table 86). School leaders were asked to rate what implications CLIL had on time allocation, subjects' allocation, teaching staff coordination, curricular planning, school's project and linguistic project, methodology, assessment and interschool collaboration. In general, the results seem to indicate that the school leaders agreed that these were some of the modifications a school had to undertake when implementing CLIL. Among all these changes, school leaders perceived that the **school's education project and language project** ($\bar{x}=4.87$ out of 6), as well as **methodology** ($\bar{x}=4.78$) where **the aspects mostly affected by CLIL**. On the contrary, it appeared that CLIL implementation did not had a big impact on **interschool collaboration** ($\bar{x}= 3.06$). The reason why school leaders tended to highlight the adaptation of the school's project and language project could be explained by the requirements schools had to fulfil in order to participate in the "Plurilingual Generation Project" funded by the Catalan Education Department. In fact, one of the conditions schools were asked in order to be selected as participants of this project was that they had clearly specified in their school's project that they were a plurilingual school and that the CLIL approach was implemented in their schools.

Several correlations were conducted so as to explore whether participants' opinion was consistent. In general, it was found that school management teams' perceptions highly correlated. These results seem to suggest that the school is a system in which the modification of one organisational aspect impacts on the others. That is, a systemic view of education and schools seemed to prevail. However, it is worth noting that the item "interschool collaboration" did not correlate with any of the other items. Apparently, school leaders perceived that the changes should be made at the school level rather than networking with other schools.

Table 86. *Main changes made in a school due to CLIL implementation according to the school leaders (means and standard deviations).*

Time Allocation		Subjects Allocation		Coordination		Curricular Planning		School and language projects		Methodology		Assessment		Interschool Collaboration	
\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
4.35	1.67	4.31	1.58	4.56	1.25	4.5	1.4	4.87	1.21	4.78	1.13	4.56	1.09	3.06	1.6

Furthermore, it was analysed whether there was a main effect of modification; that is, whether participants perceived that a modification was more necessary when CLIL was implemented than

others. The ANOVA's results indicated a significant main effect of modification ($F(7)=15,466$, $p<.001$, $\eta^2=.244$) which explained almost 25% of the respondents' variance when rating the different options. The pairwise comparisons showed that the significant differences were found between interschool collaboration and all the other modifications ($p<.001$). Even though there were no significant differences between all the other changes, it is surprising that school leaders did not identify curricular planning and teaching staff coordination as two of the main CLIL implications. This is surprising because curricular integration is one of CLIL's hallmarks. Additionally, teacher coordination has been regarded as CLIL's cornerstone.

It was further explored whether the changes were determined by the school's contextual variables (e.g. ownership, level of complexity, area...). Several ANOVAs were run so as to analyse a possible main effect of a contextual variable. It was only identified a main effect of grade ($F(4,49)=4.688$, $p=.003$, $\eta^2=.244$) which was large because it seemed to explain almost 25% of the variance. The results of the pairwise comparisons showed that the significant differences were found between those schools that implemented CLIL in the whole primary stage in comparison of those that only implemented the project in the middle and upper cycle ($p=.029$) or just one course ($p=.044$) (Figure 26). In general, the fewer grades involved in CLIL, the less necessary were these modifications. Thus, the results seem to suggest that these modifications will depend on the extend CLIL is regarded as a school-wide project.

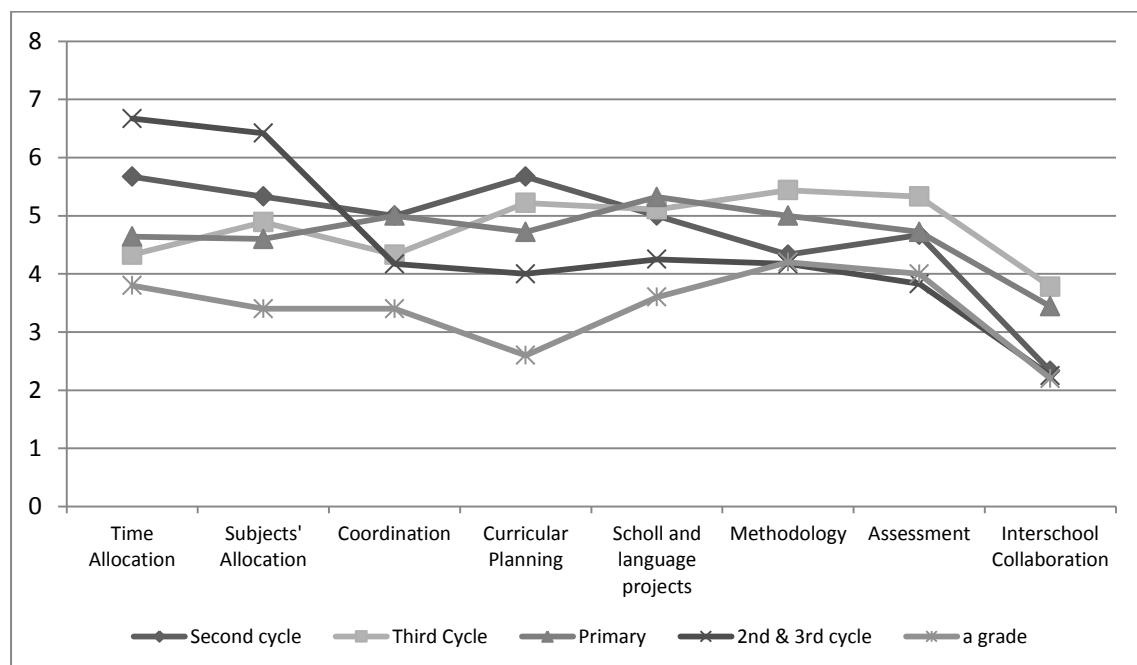


Figure 26. School leaders' perceptions about school modifications depending on the grades where CLIL was implemented.

School management teams participating in the semi-structured interviews referred to two different types of changes: curricular and organisational (Figure 27). As for **curricular changes**,

namely methodology and the organisation of an English Day were mentioned. Three out of the seven interviewed school leaders reported methodological changes due to CLIL implementation. However, they did not specify what these methodological changes consisted of. Regarding the English Day, some schools established a day which revolved around English speaking culture and English language.

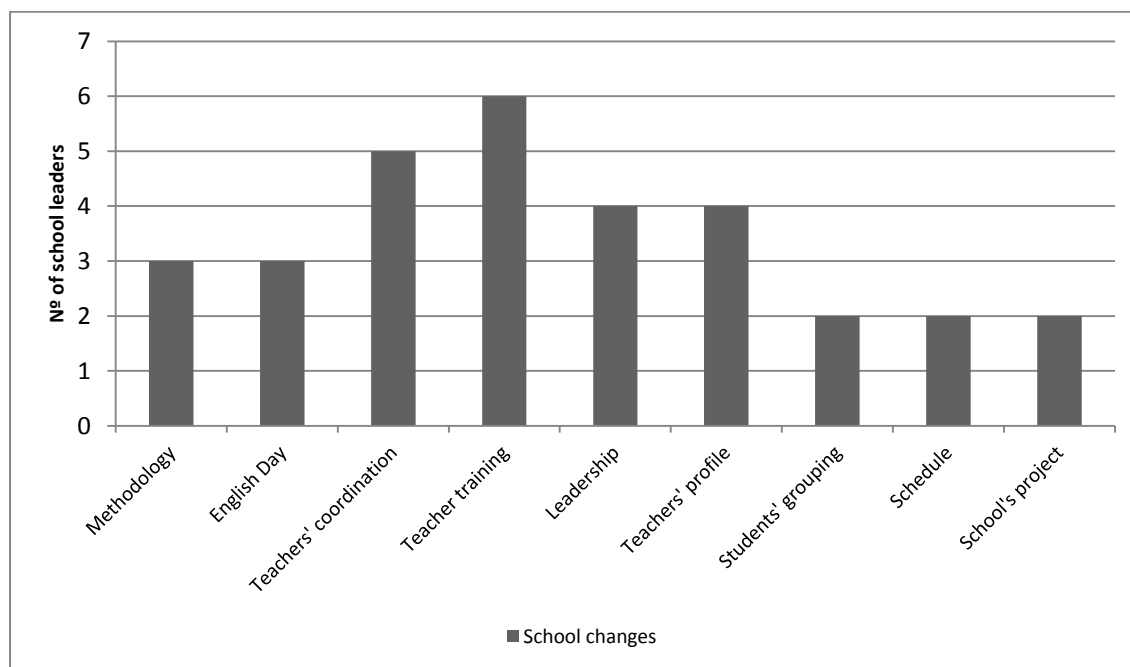


Figure 27. Curricular and organisational modifications due to CLIL Implementation.

Nevertheless, the changes school management teams referred the most were **organisational**. These modifications were: teacher coordination, teacher training, leadership, teachers' profile, students' grouping, schedule and school's project. Apparently, the most common modification was **teacher training** since all schools reported this change. Indeed, some of the interviewees regarded teacher qualification as one of their current limitations, as well as a critical element for successful and sustained CLIL implementation. Because of the relevance of teacher training, several actions were made such as participating in the GEP project and providing school-based training on CLIL or English language. "The fact that we increased the exposure to English had as a consequence an additional training for teachers. We were trained in CLIL. We did two courses: induction and deepening." (SL4).

When we realised that the Educational Department couldn't offer this training [CLIL training], it was a complicated moment because we wondered how we would do it. Offering a school-based training is very expensive; it is a big expense for the school and you may not have that money in a specific point in time. [...] We decided to offer this training, but it was a critical moment. (SL2).

Related to teacher training, another common strategy used for school leaders to get qualified teachers in CLIL was to define the teachers' profile for their school. In this way, the new temporary teachers in their schools had English proficiency and some CLIL knowledge.

Well, look, for example, one of the legal decisions head teachers have is to design structural vacants. So, I can, if it is decided in the teaching staff meeting, design a structural vacant with the English language profile. This would imply that I would have a third English specialist. (SL5).

Coordination was another aspect that had to be modified as a result of CLIL implementation. It does not mean that coordination did not exist before in these schools, but, due to CLIL, teachers that did not tend to work together started to do it. "Before CLIL, English teachers only coordinated with other English teachers, [...], but CLIL makes necessary that English and Science teachers have to coordinate." (SL6). In fact, school management teams regarded coordination as a key element for CLIL success.

I had never taught in the second-cycle or taught Science because I was an English teacher and I taught English. I hadn't much knowledge about Science. I was lucky because I could observe my colleagues' Science lessons. I could learn with them Science methodology and I added the English language and the English activities. We worked together during three years in which I entered in their Science lessons to work some contents. (SL3).

According to the school leaders, CLIL implementation demands some form of **leadership**. In some schools, this leadership was carried out by the school management team, but in other schools this leadership was exercised by a driving group or a teacher. According to the interviewees, CLIL leaders' work consisted of creating the favourable conditions for CLIL realisation. These conditions went from decision-making to teacher and schedule organisation. "We created an English commission where we had to agree some actions to work in a coordinate way. That is, we had to agree on some decision to work together." (SL4).

Even though teacher training, coordination and leadership were the most common changes, other organisational modifications took place in some schools. One of these modifications was **students' grouping**. That is, as a result of CLIL implementation, some schools reflected on other possible activities that could be offered to carry out CLIL or improve language learning. These new activities had implications on students' grouping because groups were sometimes split to do speaking activities or two different groups were joined. "We saw the need to speak in English. So we established a fix time for speaking in small groups of 5 to 6 children." (SL4). "We didn't

have English in infant Education. One of the actions we decided to promote was establishing English hours in P5 [last year of infant education]." (SL5).

All these modifications had a clear implication on the organisation of both teachers and students' **schedule**. "CLIL implied school leaders' knowledge and involvement when designing the schedule so that English teachers had hours for English teaching, but also hours with other groups to do workshops, etc. In fact, it implied a school commitment." (SL3).

As already mentioned above, the implementation of CLIL implied some changes in the school's **educational project** since some of the schools included the plurilingual approach as one of the school's identity traits.

Surprisingly, **collaborating with other institutions** to disseminate and share the followed process to implement CLIL was not a common practice of the interviewed schools. In addition, these schools did not tend to involve families in CLIL implementation except for informing them about the activities carried out or to ask their collaboration in the English Day. "We didn't have enough teachers to carry out all the English Day activities. So, we had a meeting with families' delegates to find some families who knew English and could help us." (SL5).

On the other hand, schools did not report a specific **system to evaluate the project**. They basically used the results from the external exams to evaluate the school actions. Therefore, as school leaders said, "we [the school] moved through perceptions" (SL2). Finally, most modifications referred to organisational aspects. The results also suggest that there was no much reflection on curricular integration and language integrated curriculum.

In short, the results from the two data collection instruments seem to reinforce the idea that schools do not see interschool collaboration as a necessary modification to implement CLIL. However, results are less conclusive for the key modifications when implementing CLIL. The findings of the close-ended questionnaire suggest that modifying the school's education and language projects is the most common modification, whereas the interviewed school leaders refer to teacher training, coordination and leadership. Interestingly, families' participation, results' dissemination and evaluation appear not to be one of the main worries of school leaders implementing CLIL.

6.3.2. School Management Teams and Teachers' Education and Training Needs for CLIL

School Management Teams' Education and Training Needs

One of the main aims of this study was to identify what education should school management teams receive to implement CLIL, as well as the current training needs school leaders had. The areas analysed through the closed-ended questionnaire were: CLIL theoretical underpinnings; CLIL adaptation to the school's characteristics; school-based CLIL implementation; coordination; School's project and linguistic project adaptation; materials and resources development; communicative competence; methodology, assessment and research.

School leaders were requested to report the CLIL-specific training they had received. Almost 50% of the respondents had participated in different training modalities and courses. The same number of school leaders (11,32%) reported having participated in school-based training, in training activities organised by the CLIL coordinator of the Education Department and ongoing development. Almost 10% of the respondents had never been enrolled in a CLIL training programme. The rest had participated in some form of teaching innovation activities.

School management teams were asked to rate the extent to which they believed the aforementioned domains were important for a school leader from an institution that aimed to implement a CLIL project. They had to rate the different domains using a 6-point Likert scale (1- not important at all, 6- extremely important) (Table 87). The participants perceived that all these domains were very important, being the **most important 'assessment'** ($\bar{x}=5.22$) and the **less relevant 'CLIL theoretical underpinnings'** ($\bar{x}=4.28$). It is worth noting that the members of the school management teams did not stress areas relative to school organisation and project management as the ones school leaders' education should focus on.

The results obtained for each area were correlated so as to analyse the answers' consistency. Moderate to strong correlations were found for all the items except for communicative competence. Indeed, communicative competence did not correlated with CLIL theoretical underpinnings ($r=.191$, $p=.179$), coordination ($r=.048$, $p=.739$), school's project and language project adaptation ($r=.103$, $p=.471$) and research ($r=.216$, $p=.128$). Apparently, school management teams perceived that the relevance of communicative competence diverged from the other domains. Probably, they might think that if they are not in charge of implementing CLIL in the classroom, communicative competence is less relevant.

Table 87. *Qualification required for school leaders from schools with a CLIL project.*

Theoretical underpinnings	Adaptation	Implementation	Coordination	School and language projects	Materials & Resources	Communicative	Methodology	Assessment	Research
\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}
4.28	4.96	4.87	4.54	4.59	4.41	4.44	4.96	5.22	4.63

An ANOVA was run in order to explore a possible main effect of training area. The results indicated that this effect existed ($F(10,50)=1542,51, p<.001, \eta^2=.97$). The pairwise comparisons revealed that the significant differences were between project's adaptation and CLIL theoretical underpinnings ($p=.001$) and between assessment and CLIL theoretical underpinnings ($p=.010$), materials and resources development ($p=.047$) and communicative competence ($p=.011$). It was further explored whether the perceived areas of training were determined by the personal, institutional and contextual variables. Several ANOVAs were run to control for any independent variables that could affect school leaders' perceptions. The ANOVA results indicated that there was only a **main effect of grade were CLIL was implemented** ($F(4,46)=3.028, p=0.27, \eta^2=.208$). The pairwise comparisons with the significance values adjusted to the number of comparisons revealed that the significant differences were between those schools that had only implemented the project in second and third cycle and those that had implement CLIL for the whole primary level ($p=.05$). In general, these areas were perceived as more relevant for those institutions that had implemented CLIL for all primary grades. No other main effects were found for any of the other independent variables. This fact seems to suggest that all these areas of training are important for any member of the school management team independently of the individual, contextual and institutional variables.

The results from the semi-structured interviews suggested that **school management teams were not satisfied with the training they had received** and the information they had about CLIL. According to the school management teams, they needed to know what CLIL is and its theoretical principles, as well as sharing that knowledge and experiences with other schools. However, in the close-ended questionnaire, interschool collaboration was perceived to be the less relevant aspect.

I would have liked that the first training day, I had left the training with a clear idea of what CLIL was, what it consisted of, how it is done, what steps we should follow... And I wasn't able to have it clear by the end of the training [...] I would have liked to have a clear idea to help the English teachers. (SL5).

Training would have been very helpful because we spent almost a year, lots of months, positioning ourselves. We tried to see what we had to do without having a clear knowledge of what CLIL was, with very important doubts. (SL2).

In the close-ended questionnaire, once the participants had been asked for the training areas they considered necessary for CLIL implementation, they were requested to assess their perceived training needs relative to these same areas (Table 88). The results seem to indicate that the members of the **school management teams had moderate to considerable training needs for most of the assessed areas**. Assessment (\bar{X} =4.69 out of 6) is the area in which school leaders reported higher training needs, whereas coordination (\bar{X} =2.87) is the lowest. Interestingly, the respondents considered they had considerable training needs for those areas that were closely linked to CLIL realisation in the classroom, such as assessment, methodology, language and materials and learning resources development. It seems that school leaders considered they had a better domain of the organisation-related issues.

Table 88. *School management teams' perceived training needs.*

Theoretical underpinnings	Adaptation	Implementation	Coordination	School and language projects	Materials & Resources	Communicative	Methodology	Assessment	Research
\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}
3.23	3.41	3.41	2.87	3.22	3.57	4.02	4.08	4.69	4

On the other hand, it was explored whether a main effect of training need existed. To this end, and ANOVA was conducted which revealed that this effect did exist ($F(9)=4.797$, $p<.001$, $\eta^2=.094$), but it was moderate to low, since it explained less than 10% of the variance in school leaders' perceptions. The pairwise comparisons with the p values adjusted to the number of comparisons showed that the significant differences were between assessment and CLIL theoretical underpinnings ($p=.007$), project adaptation ($p=.003$), CLIL implementation ($p=.005$), coordination ($p=.001$), school's education project and linguistic project adaptation ($p=.002$) and material and resources' development ($p=.05$). In addition, there was a significant difference between research and CLIL theoretical principles ($p=.027$) and coordination ($p=.004$).

Aiming to know whether personal and contextual variables determined school leaders' perceived training needs, it was explored a possible main effect of these independent variables. This exploration brought to light that the training needs reported by the school management teams depended on **school's level of complexity** ($F(3,46)=2.797$, $p=0.51$, $\eta^2=.154$), **school**

leaders' participation in the realisation of CLIL in the classroom ($F(2,47)=3.643, p=.034, \eta^2=.134$) and the **previous training received** ($F(5,44)=2.804, p=.028, \eta^2=.242$). The first two conditions had a moderate effect, whereas previous training had a large effect on school leaders' perceived training needs.

As for **the level of complexity**, the pairwise comparison with the significance values adjusted to the number of comparisons did not reveal any significant differences between low, middle and high complexity schools. Despite not being significantly different, the school leaders from middle level of complexity schools were the ones that reported higher training needs. With regard to the **participation of school leaders** in the realisation of CLIL in the classroom, the significant differences were between those school leaders that had never participated in CLIL implementation in the classroom and those that did it in the past ($p=.038$). In general, those members of the school management team that used to participate in CLIL realisation believed that their training needs were significantly lower than those leaders that had never participated in CLIL classroom implementation. Therefore, it seems that the knowledge gained through classroom experience helped school leaders to implement CLIL.

Regarding the **previous training received**, the significant differences were between those members of the school management team that had received school-based training and those that had never received any CLIL-specific training ($p=.038$). In this case, the perceived training needs of those leaders that did not participate in any training were significantly higher than those that received school-based training. Moreover, the comparison between the school leaders who participated in different training modalities and those that did not receive any CLIL training was close to significance ($p=.058$). Overall, these results seem to suggest that there are some types of training that have a major impact on school leaders' qualification for CLIL than others (Figure 28).

Finally, it was analysed whether there were significant differences between the school leaders' desired CLIL training and the perceived training needs reported by the school management teams. The t-tests revealed that there was a significant difference for all the analysed domains except for communicative competence (Figure 29).

School-based Conditions and Teacher Education for CLIL Implementation

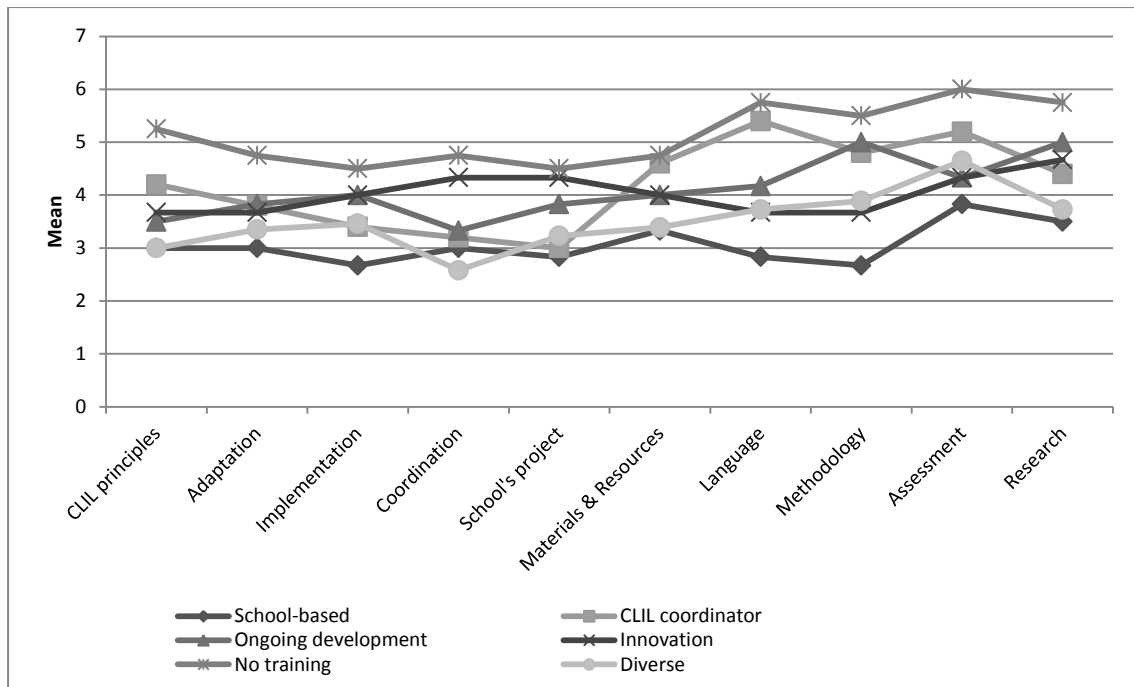


Figure 28. School leaders' perceived training needs depending on the previous training received.

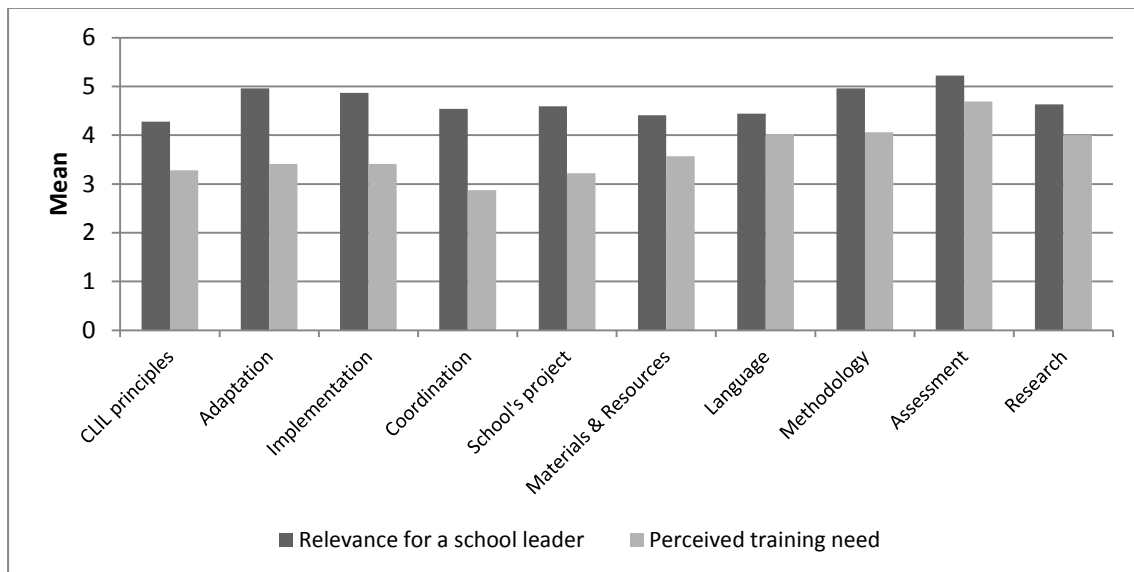


Figure 29. Comparison of the desired education for a school leader and their perceived training needs.

For all the other areas, the following differences were found: CLIL theoretical underpinnings (4.28 vs. 3.28; $t(53)=4.427, p<.001$); project's adaptation (4.96 vs. 3.41; $t(53)=8.267, p<.001$); CLIL implementation (4.87 vs. 3.41; $t(53)=5.515, p<.001$); teaching staff coordination (4.54 vs. 2.87; $t(53)=7.185, p<.001$); School's project and language project (4.59 vs. 3.22; $t(53)=6.014, p<.001$); materials and resources development (4.41 vs. 3.57; $t(53)=3.671, p=.001$); methodology (4.96 vs. 4.06; $t(50)=4.372, p<.001$); assessment (5.22 vs. 4.69; $t(53)=3.308, p=.002$); and, research (4.63 vs. 4.00; $t(53)=4.559, p<.001$). In general, the results indicated that school leaders

believed that their training needs were lower than the relevance of these domains for any member of the school management team that aims to implement CLIL. Thus, the results of the close-ended questionnaire suggest that the school leaders perceived that they had enough mastery of these domains, although they could be improved. These findings are contradictory with the expressed concerns in the semi-structured interviews.

Teacher's Education and Training Needs

One of the aims of this study was to know what the members of the school management team thought about the content of CLIL training for the teaching staff and teachers' training needs. Participants had to rate the same areas as for the school leaders using a 6-point Likert scale (1- not important at all, 6- extremely important).

The results seem to indicate that the members of the school management team believed that **all the analysed domains were important for a teacher from a school with a CLIL project** (Table 89). According to school leaders' opinion, teachers should know how to adapt the school's project and the language project (\bar{x} =3.65), followed by communicative competence (\bar{x} =3.64), whilst research was regarded as the less relevant domain for a CLIL teacher (\bar{x} =3.15).

Table 89. *Qualification required for teachers according to school management teams.*

Theoretical underpinnings	Adaptation	Implementation	Coordination	School and language projects	Materials & Resources	Communicative	Methodology	Assessment	Research
\bar{x}	\bar{x}	\bar{x}	\bar{x}	\bar{x}	\bar{x}	\bar{x}	\bar{x}	\bar{x}	\bar{x}
3.43	3.39	3.46	3.67	3.65	3.5	3.64	3.56	3.5	3.15

It was analysed whether there was a main effect of required qualification. That is, whether **school management teams believed that all these areas were equally relevant for a teacher**. The results of the ANOVA indicated that there was no main effect of area ($F(9,53)=1,089$, $p=.370$, $\eta^2=.244$). In other words, school leaders considered that all these domains were equally relevant for a teacher. However, some of the domains appeared to be more related to the school management teams' task. For instance, school leaders believed that knowing how to adapt the school's educational project was a key content of training for teachers. Although the teaching staff should actively participate in the collective reflection to adjust the school's project, it seems that it is a task of the school management teams to materialise this change in the document.

It was further explored whether contextual and personal variables could determine school leaders' perceptions. It was found a **main effect of participation in CLIL classroom implementation** ($F(2,48)=9.546, p=.019, \eta^2=.152$). That is, school management teams value all these domains differently depending on their experience with CLIL realisation. The pairwise comparisons revealed that there was a significant difference between the perception of those school leaders that participated in CLIL classroom implementation in the past and those that were currently involved ($p=.019$). In general, the members of the school management teams that used to participate in CLIL teaching and learning believed that these areas were less relevant for a teacher than those leaders that were currently involved in CLIL realisation. Surprisingly, there were no significant differences between the perceptions of the school management teams that had never participated in CLIL teaching and learning and those that were participating.

When school leaders were asked in the semi-structured interviews what qualification teachers should have, all of them reported **language knowledge and methodology**. No reference was made to content knowledge at all. "Basically, language because it is the basis. If you don't have the language you can't teach in English, it's impossible. After, the language, knowing the methodology and how to apply it in the classroom" (SL1). "An excellent language command" (SL4/SL5). This could mean that school management teams considered that the teachers had enough content knowledge or that CLIL was understood from a language perspective. Interestingly, some school leaders put language first, whereas others mentioned it in a second place. "Methodology before anything else; if you don't know the methodology, it doesn't matter how much language you know, you won't succeed." (SL3).

Apart from language and methodology, other content of training was indicated, but this content was mentioned by one school leader each: assessment, digital competence, CLIL theoretical underpinnings and learning resources. "If I had to highlight two competences, they would be methodological and digital competences" (SL5). "Teachers should know how to do a CLIL lesson, how to introduce new concepts, what CLIL is ..." (SL1). Overall, school management teams expressed their satisfaction towards teacher qualification and suggested that the training should be school-based or blended.

However, with regard to school leaders' perceptions about teachers' training needs (**iError! La autoreferencia al marcador no es válida.**), **school management teams considered that teachers had deep training needs**, being assessment the most considerable ($\bar{x}=4.63$) and coordination the least ($\bar{x}=2.96$).

Table 90. *Teachers' training needs for CLIL according to school leaders' perceptions.*

Theoretical underpinnings	Adaptation	Implementation	Coordination	School and language projects	Materials & Resources	Communicative	Methodology	Assessment	Research
\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}
3.54	3.41	3.31	2.96	3.06	3.83	4.25	4.49	4.63	3.81

It was explored a possible **main effect of training need**. The ANOVA indicated that this effect existed ($F(9,53)=12.793$, $p<.001$, $\eta^2=.210$) and it was large since it explained 21% of the variance of school leaders' perceptions. The pairwise comparisons showed that the significant differences were between materials and resources development and CLIL implementation ($p=.035$), teacher coordination ($p<.001$) and School's project and language project ($p=.016$). In addition, there were significant differences between language competence and coordination ($p<.001$) and the project's adaptation and the adaptation of the school's and language projects ($p=.004$). With regard to methodology, the training needs reported for this domain were significantly different to those perceived for CLIL theoretical underpinnings ($p=.005$), CLIL project's adaptation ($p=.003$), CLIL implementation ($p<.001$), teachers' coordination ($p<.001$), the school's project and the language project ($p<.001$). Overall, it seemed that the school management team's members believed that teachers had considerable training needs for those areas that were closely linked to CLIL teaching and learning in the classroom. This finding is contradictory because school leaders considered that CLIL training for teachers should focus on organisational aspects, whereas considerable pedagogical training needs are identified.

On the other hand, it was analysed whether the perceived training needs were affected by contextual and personal variables. The results of the analysis indicated a **main effect of school leaders' qualification for CLIL** ($F(9,50)=7.502$, $p<.001$, $\eta^2=.149$) and the **school's level of complexity** ($F(3,45)=4.809$, $p=.005$, $\eta^2=.243$). With regard to **school leaders' qualification** for CLIL, there were significant differences in the perception of those members of the school management teams that had not received CLIL training and those that had received school-based developmental training ($p=.002$) and those that had participated in several training modalities ($p=.017$). Those leaders that had not received any training perceived that teachers' training needs were higher, probably, because these leaders believed that the teachers had to compensate their insufficient knowledge of this educational approach.

As for the **level of complexity**, significant differences were found between the schools with low complexity and middle complexity ($p=.027$). In this case, the management teams of middle complexity schools considered that their teaching staff had deeper training needs than those leaders from low complexity schools. Surprisingly, there were no significant differences between low and high complexity schools. A possible reason is that there were less high complexity schools with a CLIL project implemented.

Finally, it was explored whether school management teams perceived significant differences relative to the content of training and the training needs. The T-Test results showed that these differences existed (Figure 30). The differences were significant for coordination (3.67 vs.2.96; $t(53)=2.766$, $p=.008$); School's project and language project adaptation (3.65 vs.3.06; $t(53)=2.142$, $p=.037$); methodology (3.59 vs. 4.49; $t(53)=-3.789$, $p<.001$); assessment (3.58 vs. 4.64; $t(49)=-4.390$, $p<.001$) and research (3.15 vs.3.81; $t(53)=-3.058$, $p=.003$). As for coordination and school's project and language project adaptation, the training needs were lower than its relevance for a CLIL teacher. However, for methodology, assessment and research the situation was the opposite one. It is worth noting that school leaders did not explicitly express any training need for teachers in the semi-structured interviews, they only referred to the aforementioned desired areas of knowledge.

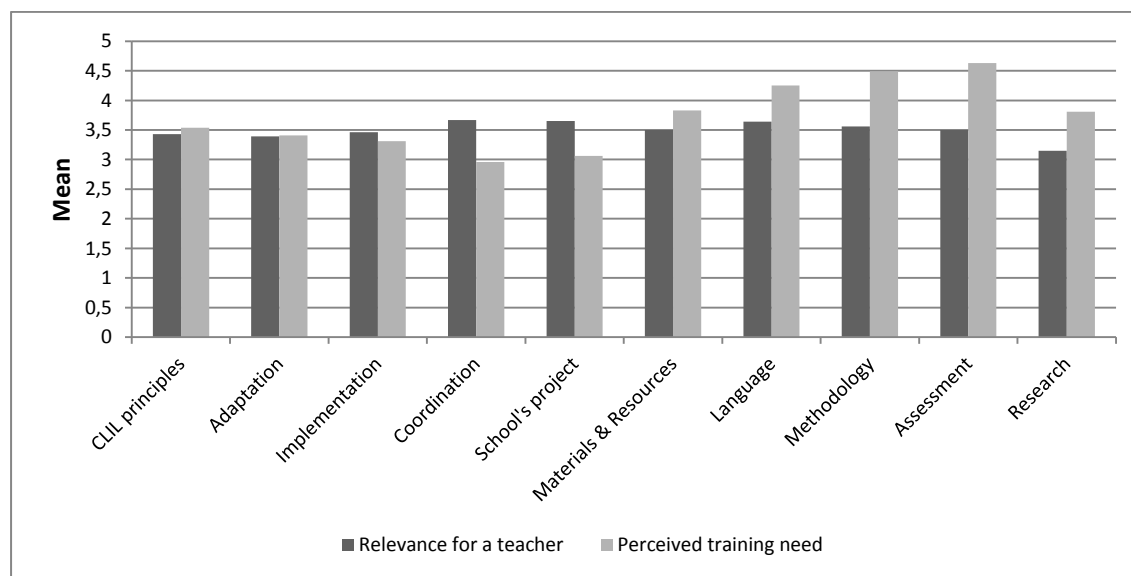


Figure 30. Comparison of the desired education for a teacher and their perceived training needs

School leaders were asked how they **facilitated the participation of the teaching staff in training activities** (Figure 31). Almost 80% of the school management teams reported 'informing about the available courses' as the main action taken to qualify the teaching staff, followed by 'facilitating attendance' (70%) to these courses. The third most popular action, almost 43% of the participants selected it, was facilitating the contact between the teachers and the CLIL

coordinator from the Education Department. It was less common that the school leaders encouraged within-school exchanges (30%) or school-based training (13%), as well as networking with other schools which had a CLIL project (22%).

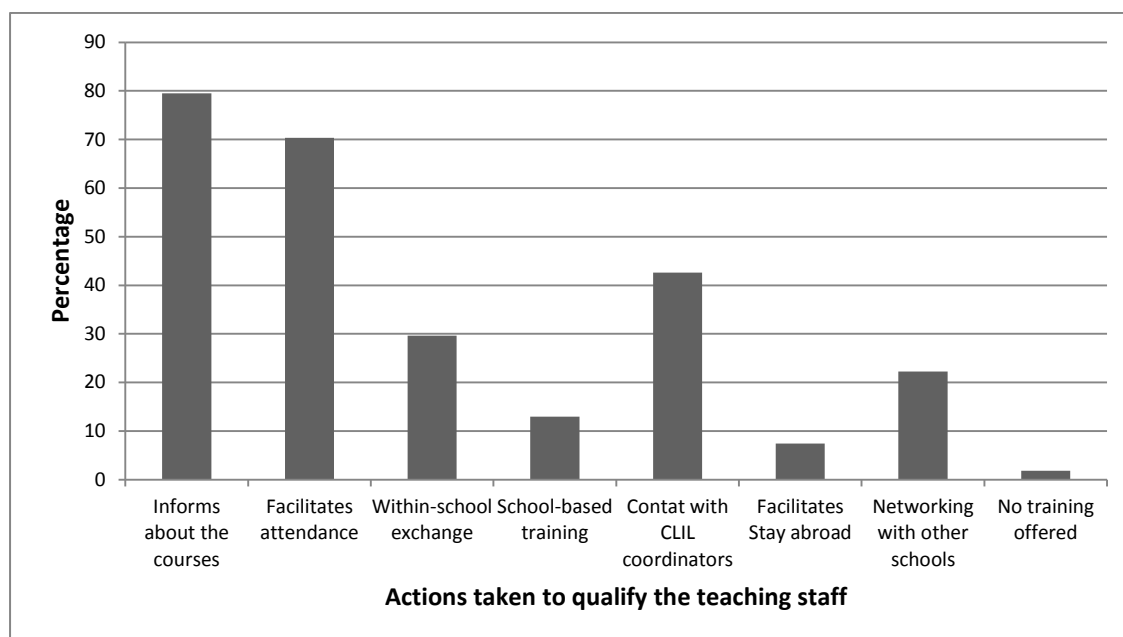


Figure 31. Actions taken by the school leaders to qualify the teaching staff (%).

School leaders could select more than one option to indicate what they had done to train the teaching staff. For this reason, it was explored whether several of these actions tended to be encouraged at the same time (Figure 32). It was found that almost 13% of the schools encouraged teacher qualification by informing about the training courses, facilitating attendance, organising within-school exchanges and facilitating the contact between the teachers and the CLIL coordinator from the Educational Department. It is not rare that these four actions tended to happen together because all the participating schools had or were participating in the *Plurilingual Generation Project* and this project somehow encouraged these actions. Other schools just promoted the three first actions (11%). However, 35% of the participating schools only informed about the courses, facilitated attendance or informed and facilitated attendance. Therefore, there is a big part of school leaders that did not tend to actively encourage the qualification of the whole teaching staff what could have a negative impact of the organisational learning and, more importantly, on developing a professional learning organisation.

The results of the semi-structured interviews seemed to reinforce the findings obtained through the close-ended questionnaire. Almost all school leaders informed about the courses, facilitated the attendance and offered some form of school-based training or within-school exchange.

There was one school that just informed about the courses. However, networking with other schools was not a training option for any of the interviewed schools.

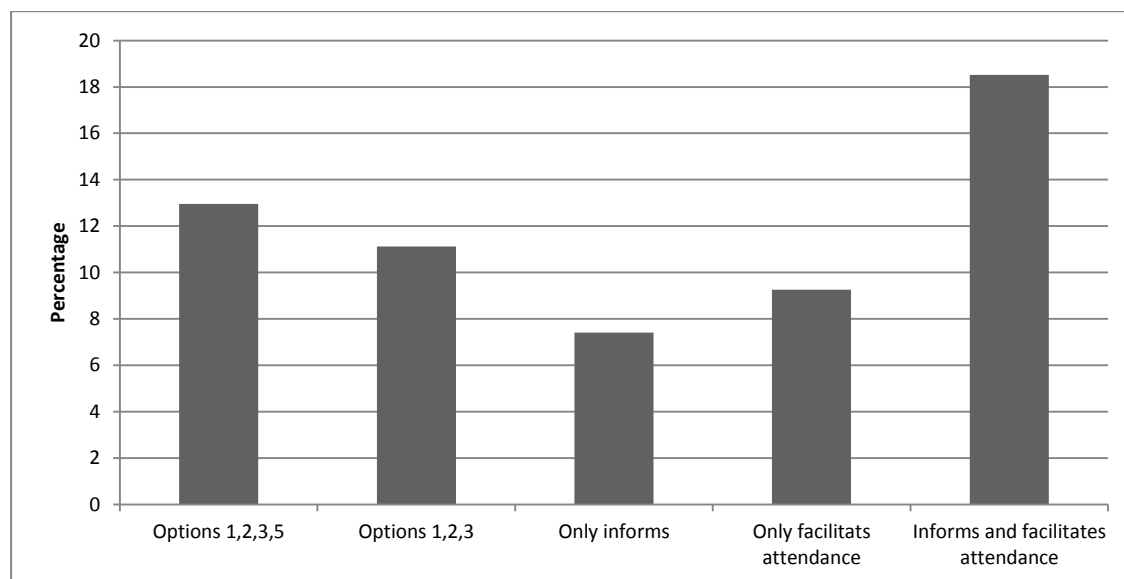


Figure 32. Most common training actions taken by the school leaders (%).

In short, it seems that school management teams believed that the analysed areas of training were less relevant for their teaching staff than the training needs they had for all these areas. This was specifically the case of those training areas that were closely related to CLIL teaching and learning in the classroom. Despite detecting considerable training needs, some school leaders seemed not to take proactive actions that foster teacher training.

Comparison of School Management Teams and Teachers’ Qualification and Training Needs for CLIL

After identifying the main content of training and the training needs of both the school leaders and teachers, it was analysed whether the school management teams perceived these aspects differently depending on the target. To this end, several t-tests were run. As for the comparison of the training areas (Table 91), significant differences were found for all the areas analysed.

Table 91. Comparison of the relevance of the training areas for school leaders and teachers

Theoretical underpinnings	Adaptation	Implementation	Coordination	School and language projects	Materials & Resources	Communicative	Methodology	Assessment	Research
\bar{x}	\bar{x}	\bar{x}	\bar{x}	\bar{x}	\bar{x}	\bar{x}	\bar{x}	\bar{x}	\bar{x}
4.28	4.96	4.87	4.54	4.59	4.41	4.44	4.96	5.22	4.63
3.43	3.39	3.46	3.67	3.65	3.5	3.64	3.56	3.5	3.15

Note: the grey area shows the results of school leaders.

In general, **school leaders believed that all these domains were more important for them than for teachers.** Interestingly, not only did school leaders believe that the organisational areas were more relevant for them, but also the areas linked to teaching and learning in the classroom such as materials and learning resources or methodology.

With regard to the training needs, several t-tests were run so as to explore whether there were significant differences between the training needs school management teams identified for them and for teachers (Table 92). The t-test results indicated that there were only significant differences for materials and resources development (3.57 vs. 3.83; $t(53)=2.257$, $p=.028$); methodology (4.08 vs. 4.49; $t(49)=-2.093$, $p=.049$) and assessment (4.69 vs. 4.63; $t(49)=-4.390$, $p<.001$). In general, **school leaders considered that the training needs were deeper for teachers** than for them except for CLIL implementation, school's educational project and language project adaptation and research.

Table 92. *Comparison of the training needs of school leaders and teachers*

Theoretical underpinnings	Adaptation	Implementation	Coordination	School and language projects	Materials & Resources	Communicative	Methodology	Assessment	Research
\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}	\bar{X}
3.28	3.41	3.41	2.87	3.22	3.57	4.02	4.08	4.69	4
3.54	3.41	3.31	2.96	3.06	3.83	4.25	4.49	4.63	3.81

Note: (the grey area shows the results of school leaders).

Overall, it seemed that the members of the school management team believed that the training areas were more relevant for them, whereas the training needs were greater for teachers.

6.3.3. CLIL Challenges and Potentialities according to the School Management Teams

Altogether, **school management teams were very satisfied with CLIL implementation** in their schools with a general evaluation of 5 points out of 6 ($\bar{X}=5$, $SD=.752$). In addition, school leaders appeared to be very satisfied with students' learning in CLIL settings ($\bar{X}=4.94$, $SD=.763$). The comparison of the two means indicated that school management teams were equally satisfied with CLIL implementation and student's learning since no significant differences were found between the two means ($t(53)=.724$, $p=.472$). However, in the semi-structured interviews, school management teams commented that they evaluated the project either through perceptions or the external exams. Therefore, it seemed that school leaders did not have the

evidences that actually proved that CLIL was working and it was not the increase of exposure what had affected students' results in the external examinations. Additionally, schools had no evidence on how content learning was affected by CLIL.

Despite this high satisfaction, **some challenges** were also reported (Figure 33). The current challenges schools were facing were: teacher qualification for CLIL (70,37%), the availability of enough human resources (66,67%) and material and learning resources (48,15%). The challenge reported the least was 'project management' (17%). Additionally, some challenges for teachers' coordination (33,34%), networking (29,63%) and the teaching staff knowledge of CLIL (37,04%) were identified. It is worth noting that most challenges were mentioned by more than a third of the participants. Just 25% of the respondents reported only one challenge.

School leaders could select more than one challenge. For this reason, it was analysed whether some of these difficulties were commonly reported together. It was found that more than 15% of the school management teams believed that the lack of qualified teachers and the shortage of resources, especially human resources, were the main challenges they were facing in their school.

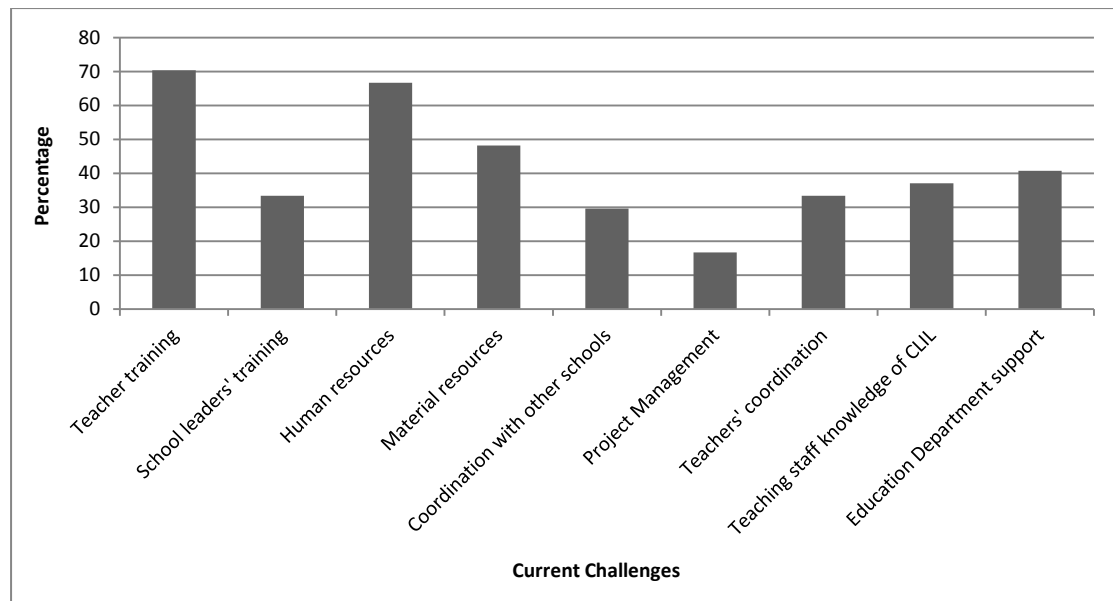


Figure 33. Main challenges related to CLIL implementation according to School Leaders (%).

Surprisingly, around 40% of the school management teams believed that the support of the Educational Department was not enough. This result is surprising because all these schools had participated or were participating in the *Plurilingual Generation Project* which provided training and resources to the schools for two years.

These findings were reinforced by school leaders' comments in the semi-structured interviews in which the scarcity of human resources was highlighted as the most common difficulty. "We would like to have the possibility to have a language assistant every year, not just one year as the GEP project offers." (SL4). Apart from human resources, school management teams also referred to the definition of the project and its institutionalisation as two big challenges:

The biggest challenge is not to leave this path. [...]. As a head teacher, I can say that we believe in this project and we want to develop this project. But, we shouldn't forget that the school's daily life is hard, there are many things going on, that good will doesn't always win and that expanding the project is difficult. So, head teachers have to persevere and insist. (SL5).

Other difficulties mentioned in the semi-structured interviews were having qualified teachers, the absence of clear leadership and collaboration with other organisations. Therefore, these findings seem to suggest that **school leaders were facing several challenges and barriers when implementing CLIL in their schools**. Some of these challenges were institutional, such as defining and institutionalising the project, but others were systemic, such as the shortage of qualified teachers for CLIL. Acknowledging these difficulties is important because preventing them may facilitate CLIL sustainability. Additionally, these findings may help to better orientate educational policies.

With regard to **CLIL potentialities** (Figure 34), 62% of the school leaders mainly identified language learning. In addition, 40% of the participants referred to the normalisation of the use of English as the language for learning and social life. The other two potentialities closely linked to CLIL implementation were the promotion of plurilingualism, which was mentioned by almost 15% of the school management teams, and the increase of English hours (10%). All the identified potentialities were relative to language and language learning. However, no benefits in terms of language integrated curriculum, curriculum integration or content learning were mentioned.

School leaders namely mentioned language learning as the main CLIL potentiality. However, as already said, not all schools had evidences that supported this idea, whereas other schools based their perceptions on the external exams. Therefore, it seems that school leaders based their perceptions on the idea that the students' language learning improved because of the increase of English exposure. Consequently, it is necessary to make school management teams aware of the need to base their decisions on evidences. Other potentialities mentioned in the semi-structured interviews were the increase of English hours and the democratisation to language access.

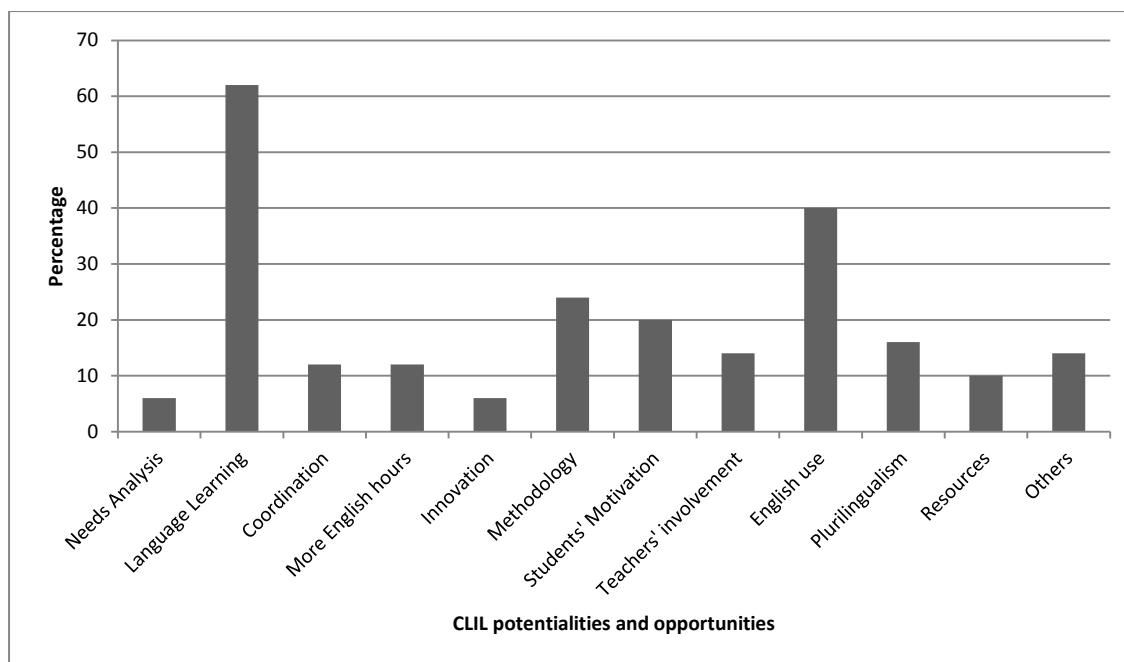


Figure 34. Percentage of school leaders that mentioned each CLIL potentiality and opportunity.

Apart from CLIL potentialities, school leaders referred to other opportunities originated with CLIL implementation. According to almost 24% of the school management teams (Figure 34), CLIL offered the opportunity to rethink and make methodological changes which could affect all teachers. Other opportunities were students' motivation (20%), teachers' involvement (14%), teachers' coordination (14%), the available resources (10%), the analysis of the school's needs (6%) and educational innovation (6%). However, despite mentioning diverse opportunities, no specific references were made to any aspect relative to curricular integration, teacher education or project management.

6.3.4. Results' Summary

The results obtained in study 3, through the school leaders' questionnaire and semi-structured interviews inform about school-based CLIL implementation, as well as school management teams and teachers' content of training and training needs. School management teams' perceptions brought to light the reality of schools implementing CLIL at the primary level in Catalonia.

In general, **schools seem to implement CLIL so as to increase students' exposure to the additional language and to improve their results in the external exams.** Apart from these two reasons, some schools appear to implement CLIL to respond to the social demands or to democratise the access to additional languages. The reasons why CLIL is implemented are closely linked to **how CLIL is understood**: from an integrative, language or methodological perspective.

The way CLIL is implemented appears to vary from school to school. However, flexible and less structured patterns were found, as well as planned processes to establish CLIL. In general, CLIL tends to occupy less than 5 hours of students' schedule (47%) or between 6 to 10 hours (27,45%). Generally, CLIL is implemented in the whole primary education or in the middle and upper-cycle of primary education. The content subjects selected appear to be Science, Arts & Craft, Physical Education (PE) and Music or a combination of some of these subjects.

The teacher that tends to be in charge of CLIL realisation in the classroom is either **a double specialists or a foreign language teacher**, followed by a close collaboration of the content and language specialists. However, the content teacher does not tend to teach in isolation in CLIL lessons. It should be explored whether this is the result of conceptualising CLIL from a language perspective or because content teachers are less qualified for CLIL. Nevertheless, **the current CLIL teacher appears to be far from the desired one.** Ideally, school leaders consider that CLIL realisation should be the result of the close collaboration and planning of content and language teachers or a double specialist.

School management teams consider that **CLIL implementation trigger several changes** being the adaptation of the school educational project and methodology two of the most important changes. On the contrary, school leaders do not believe that the introduction of this project makes any change on interschool collaboration. It is necessary to know whether this is the result of already existing exchanges and collaboration with other schools or schools tend to be isolated. According to the quantitative results, it appears that similar changes occur in the schools when CLIL is implemented independently of the contextual differences of each institution. However, the results suggest that the grade or grades where CLIL is implemented affect the depth of change. That is, the more grades involved, the deeper the changes.

Interestingly, it seems that the perceived changes are different in the questionnaire than in the interview. In the interview, school leaders refer to curricular modifications, such as methodology or the establishment of some curricular activities as Speaking or the English Day. Nevertheless, school management teams tend to stress the organisational changes, like teacher qualification, teacher coordination or leadership. Surprisingly, no specific actions are planned to network with other institutions and collaborate with the educational community. Moreover, the findings suggest that a clear system to evaluate the CLIL project has not been planned.

With regard to the content of training and the training needs of school leaders, it seems that they are **reluctant to say that a content of training is not relevant.** However, school

management teams consider that institutional evaluation is the most relevant content, whereas CLIL theoretical underpinnings the least. As for the training needs, **school leaders report considerable training needs**, especially for evaluation, but also for all aspects relative to CLIL realisation in the classroom. It is worth noting that language competence is only relevant if the school leader participates in CLIL teaching and learning. In fact, school leaders' perceived training needs vary depending on their participation in CLIL realisation in the classroom, school's level of complexity and school leaders' training for CLIL. In general, school management teams' training needs seem to be lower than the needed content of training.

As for the teachers, the school management teams consider that the most relevant training content is the adaptation of the school's educational and language projects, whereas knowing research results is believed not to be as necessary. However, the relevance of the content of training appears to be affected by the participation of school leaders in the project. Surprisingly, the school leaders that participated in the past in CLIL teaching think that this content of training is less necessary. Nevertheless, in the semi-structured interviews, school leaders only refer to language knowledge and methodology as the important contents of training. In terms of teachers' training needs, school management teams highlight assessment. The areas where school leaders perceive their teaching staff have deeper training needs are those linked to CLIL teaching and learning (materials, language, methodology and assessment). **These training needs are determined by school management teams' qualification for CLIL and the school's level of complexity.** These training needs could be explained by the training received for CLIL. Interestingly, while some school leaders adopt a more proactive attitude to train the teaching staff, 35% of them tend to only inform about available courses and facilitate the attendance to these courses. All in all, school management teams believe that the content of training is more important for them but teachers are the ones who have deeper training needs.

The general impression is that **school management teams are satisfied with CLIL implementation and students' results.** However, it is not always clear what evidences are used to support this satisfaction. Despite being satisfied with CLIL, the truth is that school management teams have to face several challenges that can hinder CLIL, such as teachers' qualification for CLIL and human and material resources. Some schools also express in the interviews how challenging defining and institutionalising the project is. Indeed, it seems that systemic and institutional barriers can make this process extremely difficult. Apart from these difficulties, CLIL has some potentialities that are aligned with the reasons why schools decide to implement CLIL, such as language learning, increasing the exposure to the additional language or

normalising the use of a new language. The analysis of the school leaders' perceptions has offered an overview of school-based CLIL implementation in Catalonia. This information can help addressing educational policies, as well as CLIL training.

6.4. Results Study 4: CLIL Experts' Opinion

Study 4 aimed to compare stakeholders' perceptions with CLIL experts' opinion with regard to teacher and school leaders' qualification and organisational conditions that favour school-based CLIL implementation. To this end, 10 Spanish CLIL experts were interviewed in order to know their opinion about pre-service and in-service teachers, teacher trainers, CLIL coordinators, inspectors and school management teams' perceptions and the current state-of-the-art of CLIL implementation. The results from these interviews are presented in this section. First, it will be reported how CLIL experts conceptualised CLIL; next, experts' opinions about CLIL teachers' education for CLIL instruction and school leaders' qualification for CLIL implementation will be summarised. Finally, organisational conditions for school-based CLIL implementation will be synthesised.

6.4.1. CLIL Conceptualisation and Potentialities

The analysis of semi-structured interviews revealed that **experts conceptualised CLIL from three different perspectives**; that is, from a language, methodological and content and language integrated point of view. As Figure 35 shows, the majority of CLIL experts conceptualised CLIL as an approach whose hallmark is the **integration** of content and language. Nevertheless, there were some nuances between experts' understanding of *integration*. On the one hand, some experts defended that CLIL should be understood as the integration of all curricular and non-curricular languages in some form of integrated language curriculum. "Why CLIL and not an Integrated language curriculum? [...] We need to integrate not only content and language but also all curricular and non-curricular languages, to transfer what we know and learn in one language to the others." (E3).

Other experts put the focus on the integration of content and language: "The 'I' from CLIL is probably the most interesting thing in the acronym, isn't it?, and to integrate the content with the language scaffolding we want to provide." (E8). Another group of experts put the emphasis on the curricular and methodological implications of content and language integration.

I think that there is an issue that it is not considered. When we talk about CLIL, we only refer to the content subject, while I think that the language subject should also change in CLIL contexts. The way we teach language must change: the students change, their needs change, their level changes, etc. (E2).

A second way of conceptualising CLIL was from a **methodological perspective**; that is, understanding that CLIL is a specific methodology for teaching and learning a language. However, the experts that defined CLIL from a methodological perspective characterised CLIL as a pedagogy that included different learning theories, such as socio-constructivism, and student-centred methodologies (e.g. collaborative learning, projects-based learning...). Therefore, it was a bit contradictory that CLIL was conceptualised as a methodology on its own and characterised using already existing learning theories and methodologies.

All teachers should be ready to teach their subject using a methodology based on constructivism precepts, an interactive methodology that promotes autonomous and collaborative learning [...] I think, as we have always defended, CLIL can be applied to both additional languages and mother tongues. I do not think that there should be differences; and, all teachers should be trained in this methodology, regardless of the language used in the classroom. (E10).

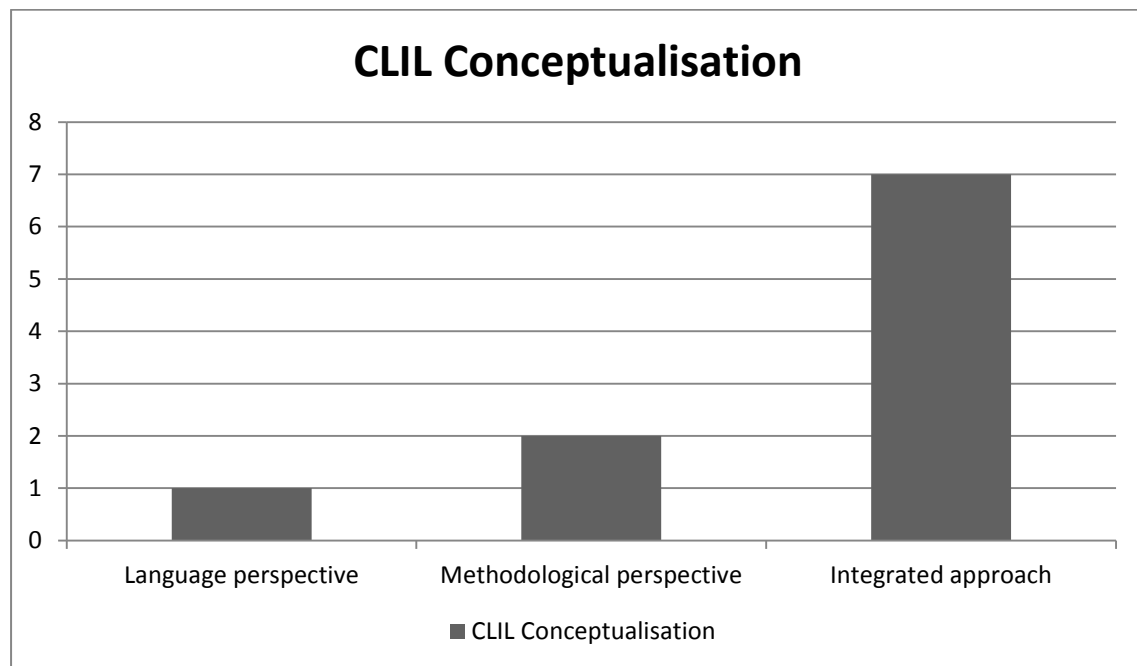


Figure 35. Experts' conceptualisation of CLIL.

Finally, one of the experts defined CLIL from a **language perspective**, understanding that CLIL is an approach orientated to language acquisition and that its ultimate aim is to acquire an additional language: "CLIL origins come from a vision that understands that languages should be worked across all subjects [...] Then, this vision was imported to second language teaching." (E4).

On the other hand, experts identified some CLIL potentialities and opportunities. **CLIL potentialities** referred to all the positive advantages that were derived from CLIL implementation (Figure 36). The experts namely mentioned three potentialities: curricular,

students' learning and democratisation of students' access to second languages. The potentiality referred the most was **students' learning**. Learning improvements were generally concerned with language learning rather than content learning. However, according to some experts, content and language gains depended on the quality of the programme:

If the project is good or average - because if it is a bad programme it can be a disaster and a chaos-, but if it [CLIL project] is good, with qualified teachers on language proficiency, methodological competence, then [students'] language development is spectacular in some cases and, at least, good in other cases. [...] When programmes are good, content learning is also good and students learn better. (E1).

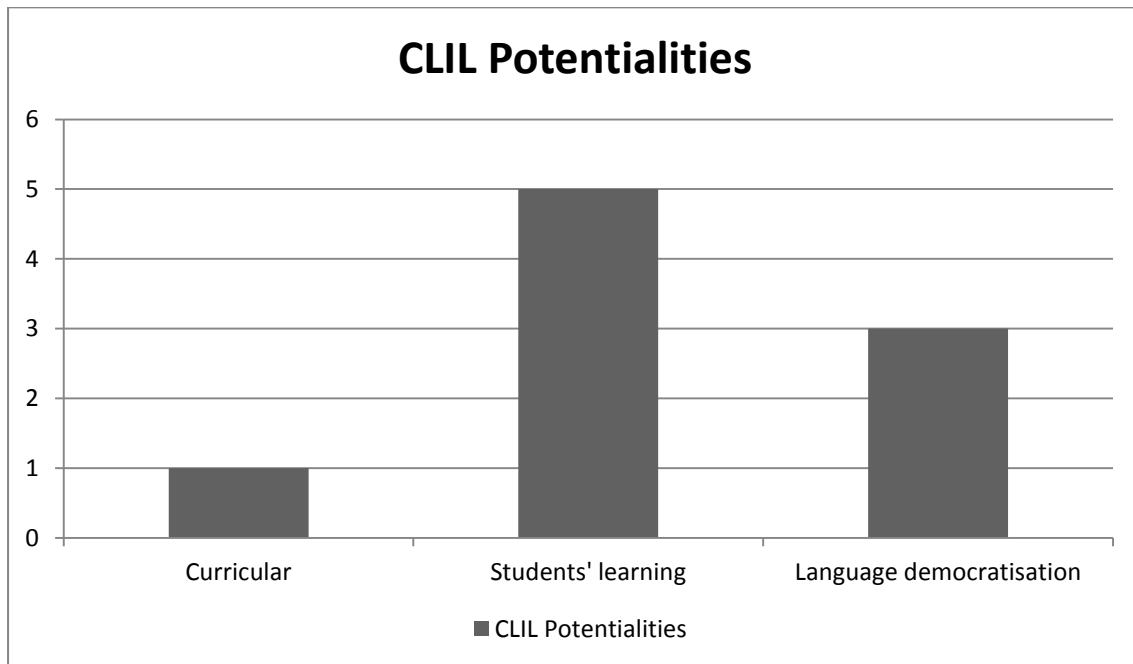


Figure 36. Potentialities of CLIL implementation according to the experts.

A second potentiality was the **democratisation to access second languages**. Some experts mentioned that additional language learning had been neglected to students from lower socioeconomic status or deprived areas. Even though it is true that second language learning is a compulsory subject from the curriculum, the truth is that the integration of content and language has been basically used in "international schools with native speakers" (E4). Additionally, students from accommodated families benefit from extra hours of second language learning as part of their after school activities. "I think that CLIL democratises the access to internationalisation. Otherwise only private and international schools would have it. In this way, it is offered a more accessible way of understanding the world through languages." (E4).

Finally, although just one expert mentioned it, a third potentiality was at the **curricular level**. According to this expert, CLIL had the potentiality to understand the curriculum in an integrated

way, identifying the connections between the different fields of knowledge. Additionally, CLIL could favour the use of student-centred methodologies such as project-based learning.

Apart from CLIL intrinsic potentialities, the experts mentioned some **CLIL opportunities**. That is, those processes that could be started in a school as a consequence of CLIL implementation. According to the experts, these opportunities were basically four (Figure 37): self-reflection on the teaching practice and students' needs; to transfer good teaching practices to other environments; to improve students' motivation and teachers' coordination.

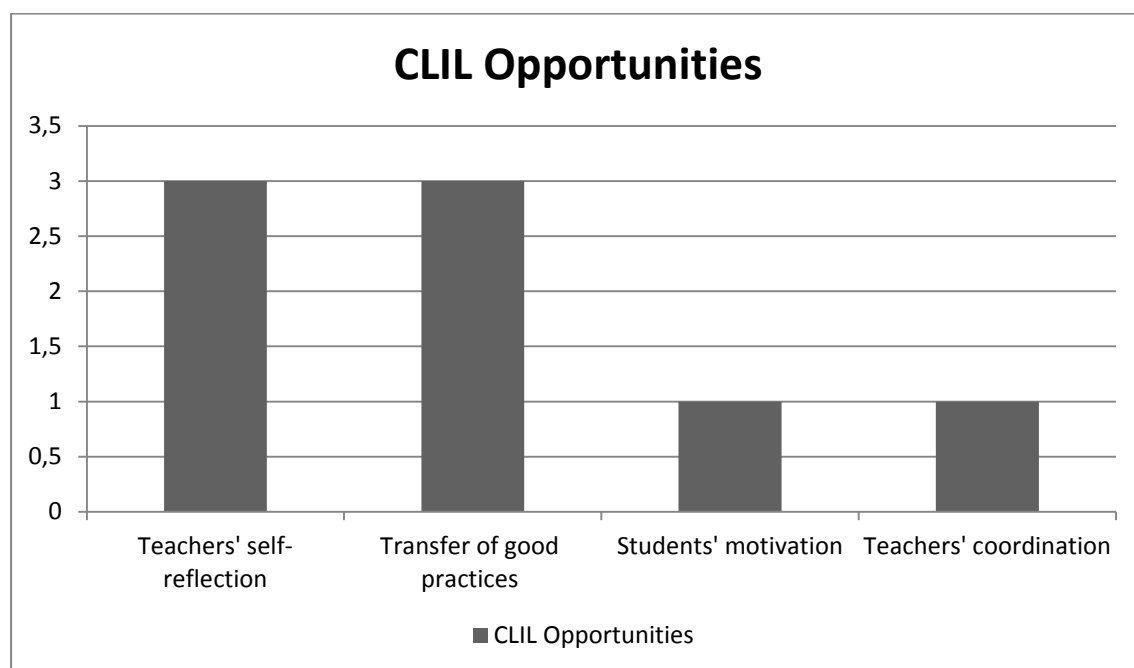


Figure 37. Opportunities derived from CLIL implementation according to the experts.

Some CLIL experts believed that CLIL implementation offered teachers the opportunity to **self-reflect on their own practice and students' needs**. According to the experts, this reflection was the result of the challenges and difficulties faced when implementing CLIL in the classroom. CLIL implies a new way of teaching both content and language because students are not competent in the additional language. "This [CLIL implementation] implies a reflection that has as a consequence methodological adaptations" (E6). Additionally, the realisation of CLIL in the classroom raises some difficulties related to the teaching and learning process that, otherwise, would have not been identified.

In a CLIL project, somehow, everything is magnified because the reality is showing it [students' difficulties] all the time. And this makes you rethink aspects related to the teaching and learning of the other languages. [...] Students are all different, with different learning rhythms, specific needs and learning styles. I think CLIL makes you aware of this reality and this allows you to improve your teaching. (E5).

Related to the first opportunity, a second opportunity identified was **transferring good teaching practices** to non-CLIL scenarios, that is to other contexts or subjects:

Independently of how you work, it [CLIL] always causes a reflection and, consequently, an important methodological adaptation. Not only for the CLIL teacher, but also for other teachers because different [methodological] strategies are applied and other teachers imitate them. Other teachers observe these strategies and the curiosity makes that they are interested in them. Therefore, this is a potentiality. (E6).

Students' motivation and **teacher coordination** were also mentioned as CLIL opportunities. Each opportunity was mentioned by one expert each. It was believed that this approach to second language teaching and learning could be more "motivating because it was the academic content" (E7). On the other hand, CLIL offered the opportunity that teachers, who had not worked together, could collaborate and analyse the connections between their subjects.

Once it had been identified how CLIL was conceptualised, as well as its potentialities and opportunities, it was explored whether there was a relationship between CLIL conceptualisation and the identified potentialities and opportunities. To this end, it was used NVivo option to compare two categories. It was found that those experts that conceptualised CLIL as an integration of content and language tended to identify as potentialities students' learning and the democratisation to the access to an additional language. Surprisingly, there was no clear connection between understanding CLIL as an integration of two subjects and the potentiality of rethinking the curriculum. It would have been expected that CLIL would imply revisiting the curriculum from an integrative perspective. This could indicate that CLIL implementation may not directly imply breaking down the barriers between curricular subjects or propose an integrated language curriculum. Another possibility is that there is some resistance towards change.

As for the opportunities, those experts that understood CLIL from an integrative perspective seemed to consider that CLIL offered the opportunity to transfer good practices to other contexts and to reflect on the own teaching practice. However, surprisingly, these experts did not mention teacher coordination as an opportunity. A possible explanation is that coordination is currently a challenge rather than a reality and, therefore, experts do not perceive CLIL offers the opportunity for teachers to coordinate. Another possible explanation is that the experts consulted did not believe that this is an intrinsic opportunity of CLIL.

The two experts that defined CLIL from a methodological perspective considered that a CLIL potentiality was students' learning. That is, this new methodology had a positive impact on

students' achievement. But, surprisingly, these experts did not describe as a potentiality curricular integration or organisation. Therefore, these results seem to suggest that experts understood CLIL as a methodology that is applied in the classroom rather than a school-wide decision. Evidence that supports this is that those experts conceptualising CLIL as a methodology did not make any reference to teachers' reflections on their practice or the transfer of this methodology to other scenarios different to the ones used when teaching content subjects through the additional language.

Finally, the expert that conceptualised CLIL from a language perspective believed that the main CLIL potentiality was democratising the access to additional languages and, more specifically, the access to internationalisation. This expert did not mention any other potentiality or opportunity.

6.4.2. Teachers' Training for CLIL Instruction

One of the aims of the semi-structured interview was to identify experts' opinion about teachers' current training for CLIL teaching, teacher competences and the main characteristics of an ideal CLIL teacher training programme. For this reason, the ten experts were asked to comment on CLIL teachers' training needs and the type of training they should receive for CLIL teaching and learning. It was also explored how experts described the ideal CLIL teacher's profile.

CLIL Teachers' profile

With regard to CLIL teachers' profile, experts seemed to consider that the best profile for a CLIL teacher was that one of a **double specialist**; that is, a teacher that had a double qualification in a content subject and an additional language. In fact, seven out of the ten experts defended this idea. However, experts were well aware of the difficulties that currently exist in Spain for hiring teachers with a double specialisation. While in some countries, "such as Austria or Luxemburg, teachers have a double specialisation" (E10), Spanish teachers tend to be qualified in just one discipline. Although an ideal scenario would be that teachers had a double specialisation, the truth is that CLIL realisation cannot rely on double specialists in Spain because having two specialisations is teachers' individual decision rather than an option motivated by the Educational Administration and Universities.

Six experts also believed that **team-teaching**, two educators teaching simultaneously in the same classroom, could be a good solution for CLIL realisation in the classroom.

I think this idea [team-teaching] is essential: even though a person is qualified in a given [content] subject and has language proficiency, it doesn't mean that the project is

carried out collaboratively with the language team, although I think it must be like this. (E5).

Nevertheless, despite considering team-teaching a good solution, experts were conscious that this would not be a reality in the short-run. The main barrier for team-teaching is the insufficient available resources: “if two teachers are in the same classroom, they [Administration] should hire more teachers that fill the lessons that one of the teachers is not doing, but this is impossible because of the lack of resources” (E1).

Even though the ideal profiles for CLIL teaching were considered to be either teachers with a double specialisation or team-teaching, the systemic barriers, such as the shortage of resources and teachers being trained as specialists, prevent these two profiles to be the ones used in CLIL teaching in Spain. Consequently, experts advocated that either content or language teachers had to be the ones in charge of CLIL realisation in the classroom. Interestingly, the possible profiles of CLIL teachers seemed to vary depending on the educational stage. There appeared to be a tendency to consider that the language teacher should be the one in charge of CLIL at the primary level, whereas the content teacher should be responsible of CLIL at the secondary education. This variability would have implications at the training level, but also at the school level and in the role of language and content teachers.

At the secondary education, it is the content teacher that has to prove his language level; that is, he has to bring the language to his classroom. And, at the primary level, it could be that a teacher has the double competence, that is, they are language teachers and, at the same time, they teach the content subject. (E1).

The reason why experts seemed to advocate different profiles for CLIL teachers depending on the educational stage was due to the increasing difficulty of the contents from the content subject. Experts believe that language teachers have sufficient general knowledge of the content subject at the early years of primary education. However, the older the students, the more difficult and abstract the content is, consequently the “content could be compromised” (E6) if the language teacher teaches it. Interestingly, experts do not believe that the same can happen with language knowledge. It seems that having certain language proficiency is sufficient to teach a content subject in a foreign language. Nevertheless, it remains unclear whether this ensures that content teachers have enough knowledge on second language acquisition.

Overall, it is not completely clear whether the CLIL teacher has to be a language specialist with some sort of knowledge on the content subject or the other way around. Additionally, the current systemic barriers seem to make difficult some ideal CLIL teacher’s profiles such as the

double specialisation or team-teaching. This could explain why those experts that advocated that CLIL's hallmark is the integration of content and language were more in favour of some form of coordination and cooperation between the content and language teacher, as will be reported in the following subsections. Regarding the methodological and pedagogical practices, it could be that the success of CLIL implementation in the classroom relies on teacher qualification, but also on the close collaboration of content and language teachers.

CLIL Teachers' Training Needs

Experts considered that CLIL teachers had training needs relative to six areas: CLIL conceptualisation, language knowledge, content knowledge, theoretical underpinnings, CLIL research, curricular and organisational needs (Figure 38). However, **curricular training needs** were the ones referred by more experts, seven out of ten. Namely, the experts believed that CLIL teachers had **methodological training needs**. These needs referred to teachers' difficulty to adjust their teaching practices to a context where students did not master the language of learning. "It does exist a certain misunderstanding. It is not the same transferring knowledge through students' L1 that trough an additional language" (E1). This methodological changes also affected teachers' sense of classroom control, basically because they had to move from teacher-centred towards student-centred methodologies. Therefore, "the minute it becomes more student-centred, you need to know how to control your students, you need to know the different levels of volume, the more movement [...], you need tools to use in the classroom to control the students' behaviour" (E9). However, note that the term methodology was used differently. While some experts used methodology to refer to the specific teaching methods and strategies, others used it as a synonym of pedagogy or didactics.

Interestingly, several experts mentioned **assessment** as a curricular training need of CLIL teachers. The needs relative to assessment referred to two different aspects. On the one hand, the first concern was how content and language could be assessed in an integrative way without language proficiency delaying content learning.

It is possible that you have to face this dilemma: 'how can I adapt assessment in a process where content and language are integrated and in which I have to teach the content and ensure content learning? But, what do I do with language?, what do I assess?, how do I assess it? (E6).

On the other hand, some experts believed that another need in terms of assessment was moving towards a formative assessment, knowing how to assess students, what assessment strategies and tools could be used and how to apply them in the classroom. "CLIL makes teachers aware of the need to change their assessment practices, but they do not know how to do it" (E5),

probably, because “assessment has been set aside.” (E8). However, formative assessment is not peculiar of CLIL, but of any learning process. Consequently, the training needs relative to formative assessment could not be directly linked to CLIL, but to the general training and knowledge of how to assess students’ learning.

Regarding curricular training needs, an expert highlighted teachers’ insufficient mastery of **language transfer** so as to “work all languages in a cross-curricular approach” (E3).

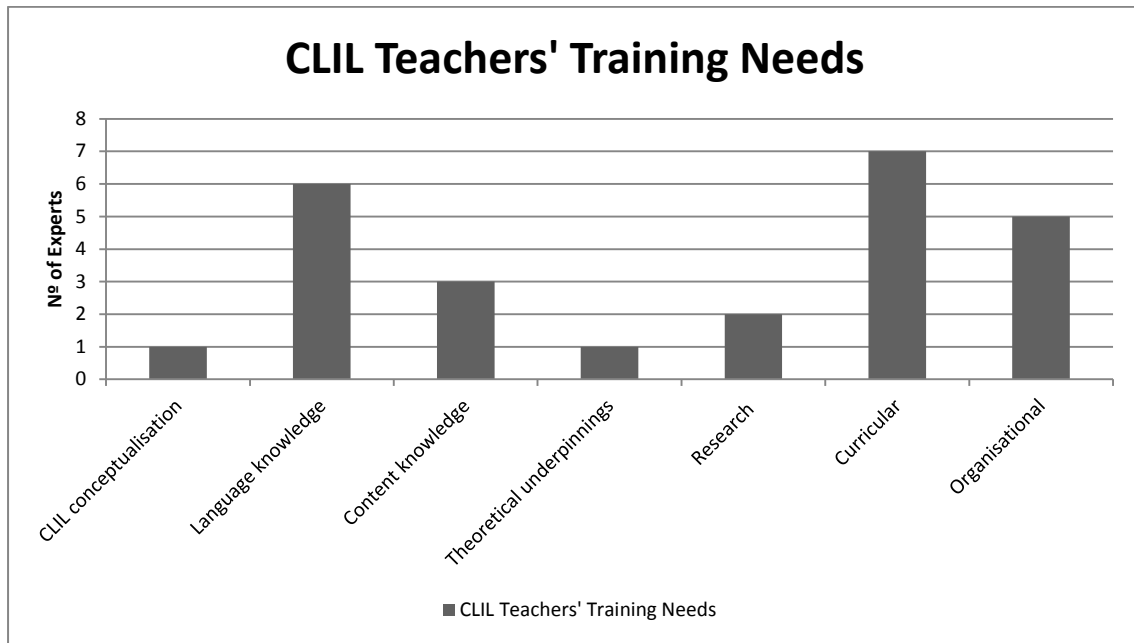


Figure 38. CLIL teachers’ training needs reported by CLIL Experts.

Language knowledge was the second training need reported the most by CLIL experts. Surprisingly, experts referred to language knowledge as language proficiency not as teachers’ competence to use the language for teaching and learning purposes.

Look, what I think, first, is that teachers’ acquisition of language skills during the degree is not enough, ok? Even being English specialists, a B2 level is not sufficient for a teacher to be able to teach, manage a classroom, etc. Then, I think that the main problem is that, regarding language acquisition, the level is not the expected one. (E10).

It seemed a bit contradictory that experts conceptualise CLIL as the integration of content and language, but, when asked for teachers’ training needs, they did not mention the role of language in content learning, teachers use of language for content learning or, for instance, the importance of language scaffolding to acquire both language and content. It could be that experts believed that CLIL teachers already mastered these aspects, but it could also be that experts perceived that the main focus on language should be on language proficiency.

Some experts also expressed their concern about **content knowledge**. Some of them noted that content had sometimes been overlooked. However, if CLIL hallmark is the integration of content and language, teachers “should have knowledge on this content, but also on the pedagogical content knowledge.” (E5).

If a content subject is going to be taught through another language, teachers must also have knowledge of this content. It could be that teachers are very well-qualified in this content, but I have the feeling, in general, they [teachers] see content as something static. But I think it is important to update content knowledge, as well. (E7).

Experts also reported **organisational** training needs. The organisational training needs referred to teachers’ coordination, project’s evaluation and curricular adaptations at the organisational level. As for **teachers’ coordination**, experts believed that it was a need present in both pre-service and in-service teachers, independently of in-service teachers’ experience in CLIL settings. “Teachers should be conscious of the importance of coordination during the whole process, not just at the beginning” (E8). “Content teachers have to base their decisions on the experience of language teachers” (E1). However, this coordination should not only be “between the content and language teachers, but also between all the school languages” (E3).

CLIL experts also noted the importance of training teachers to **evaluate the project’s** results so as to base their future decisions on the results obtained instead of perceptions. “It is important that teachers reflect on students’ results, what areas are improving as a result of a new methodology, etc.” (E3).

A couple of experts mentioned **research** as an area where CLIL teachers should receive further training. Note that experts did not tend to think that teachers should know how to conduct a research. When experts mentioned research, they referred to teachers being aware of the main research findings relative to CLIL and their implications on the teaching practice. Therefore, research referred to basing the teaching decision on evidences. “If research means knowing what has been done so as to know the research and the main results, I think research is very important.” (E7).

Finally, training needs were also identified for **CLIL conceptualisation** and **CLIL theoretical underpinnings**. However, each training need was mentioned by one expert each. As for CLIL conceptualisation, an expert noted that some teachers did not have clear yet what CLIL exactly was and, therefore, what it implied:

It is not just about changing the language of teaching, but changing teaching practices [...] the fact that CLIL is carried out in a language that students’ do not master makes that

teachers have to plan the linguistic elements, students' language needs. There are a lot of teachers that have not noticed it yet. (E2).

As for the theoretical underpinnings, it was believed that teachers should know what the origin of CLIL was. "Teachers should understand the European origin of CLIL, as well as the communicative approach."(E4).

The interviewed experts believed that there were three main **causes** that explained **teachers' perceived training needs**: the Administration's perceptions, the own perceptions and initial teacher education (Figure 39). In general, experts tended to consider that the training needs identified were the result of teachers' perceptions on their daily teaching. That is, the continuous realisation of CLIL in the classroom made CLIL teachers aware of the problems and difficulties they were facing. The insufficient mastery of curricular, organisational aspects, among others, made them become aware of their training needs.

What teachers are really saying is: 'what do my students need?, 'how can I help them in my context, in the type of school I am?' [...] Therefore, I think that they [the training needs] are determined by the context. (E3).

The more experience you have, the more you realise the gaps you have. Some important aspects that maybe you did not perceive as important at the beginning, they do become important due to your experience, your interests or knowing how to integrate language and content [...] Other aspects that you may not be that interested in at the beginning because you are focused on language, and methodology becomes relevant later. (E8).

Some experts also believed that CLIL teachers' training needs were the result of the **prescriptions** from the Educational Administration; that is what the Administration demanded CLIL teachers to do. "The fact that new decrees on Assessment have just been published makes that teachers perceive that they are less competent in this area. If teachers had already applied the new prescriptions, they wouldn't have this fear." (E3).

For some experts, the origin of the reported training needs was **initial teacher education**. Some experts criticised that pre-service teacher education was not offering teacher students a good model of content and language integration:

It should be rethought how language teaching and learning is taught at university level. If we look the teaching plans, languages are compartmentalised. There is Catalan, Spanish and a foreign language, but each language has its own didactics. Therefore, there is not an integrated approach towards languages, something that we are asking from the [Education] Department. [...] I don't think we are reinforcing this topic by incorporating a unit about CLIL. (E5).

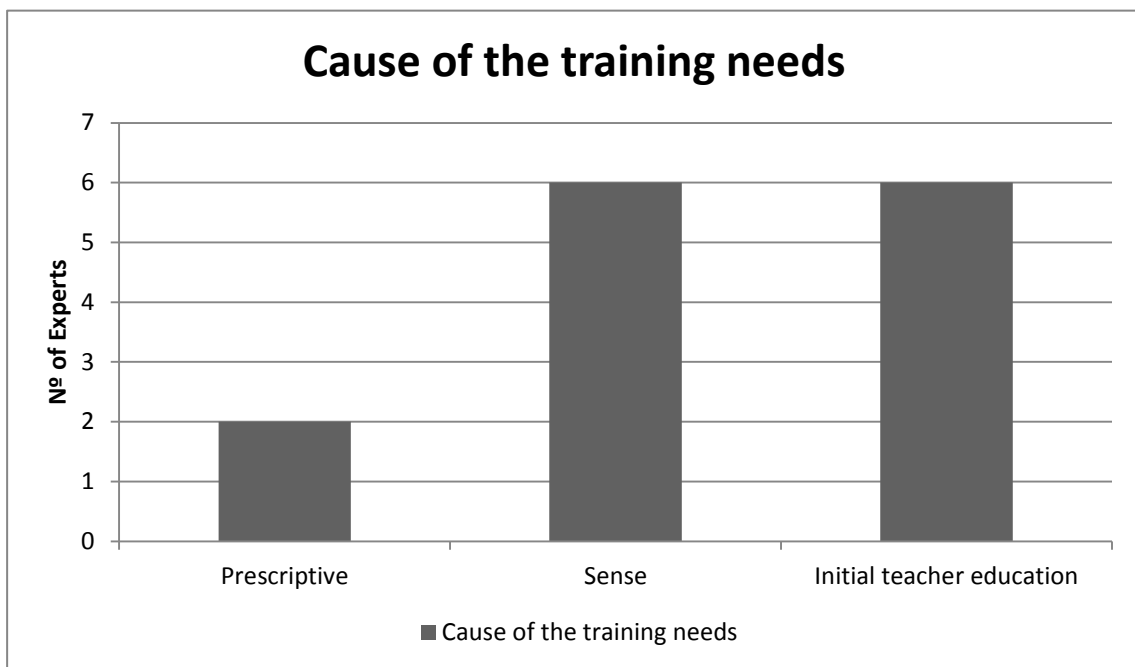


Figure 39. Main causes that explained the perceived training needs according to the experts.

Additionally, it is not guaranteed that teacher students' will finish initial teacher education with the level they will be later required in terms of foreign language knowledge. On the other hand, university lectures could have an incomplete understanding of CLIL and consequently, they wouldn't be applying this approach. To this, it has to be added that initial teacher education tends to be too theory-based and pre-service teachers may lack the ability to apply this knowledge into practice.

Most CLIL experts believed that the training needs identified tended not to be CLIL specific because **non-CLIL teachers could report similar training needs**. In addition, some experts considered that these training needs were not endemic of the Catalan context. This result seems to suggest that the training teachers are receiving is not good enough since teachers perceive they are not prepared for the teaching and organisational challenges they have to face. In addition, the findings appear to indicate some areas that should be addressed during the whole teacher career, such as methodology, assessment and coordination.

However, some experts also believed that there were some training needs that were specific or, at least, more relevant for CLIL teachers. Some experts concurred in identifying the integration of content and language as a training need specific of CLIL teachers. Consequently, it could be that some of the general training needs became more relevant in a CLIL context: "I think that language, methodology, and even assessment, take a different relevance in a CLIL approach. Teacher education should consider this." (E8). Nevertheless, as one of the experts warned, the

training needs identified “could not be applicable to other contexts because not everyone implements CLIL in the same way” (E6). Additionally, contextual differences may lead to different training needs. For instance, Spanish bilingual communities have a tradition in integrating school languages. Consequently, “teachers and students have experienced the coexistence of two languages in the curriculum as social and learning languages” (E1), whereas monolingual communities cannot rely on this tradition.

CLIL Teachers’ Competences and Requisites

After discussing CLIL teachers’ training needs, experts were asked for CLIL teachers’ competences and requisites so as to know experts’ opinion about the training CLIL practitioners should receive. Experts were presented with the list of competences identified in previous stages of this research (Table 93). They were asked to arrange these competences from the most to the least important for a CLIL teacher considering their relevance as the object of training.

Two experts decided not to order these competences. One of them thought that competences could not be arranged if a clear CLIL teacher’s profile did not exist. The other expert believed that all competences were equally important and, therefore, it did not make sense to put them in order.

Table 93. *List of competences identified in previous research stages.*

COMPETENCES
Self-reflection competence
Communicative competence
Methodological competence
Assessment competence
Material development competence
Classroom management competence
Research competence
Project management competence

Interestingly, out of the eight experts that arranged the list of competences, six experts put communicative competence in the first place. While three experts only selected communicative competence as the most important competence, the rest added other competences to this first place such as methodology or project management. The other two experts, who did not position communicative competence in the first place, put self-reflection competence at the top of the list. These two experts believed that self-reflection was “the base to improve the teaching practice and ongoing development” (E2). Interestingly, those experts that positioned communicative competence in the first place tended to position self-reflection competence towards the end of the list or even considered self-reflection as not important. On the contrary,

those experts that put self-reflection competence at the top, position communicative competence towards the end. These results suggest that some of the experts had a tendency towards a technical vision of teacher education and the teaching profession, whereas the other experts seemed to understand teaching from a reflective perspective.

Moreover, if methodological competence was not added to communicative competence in the first place, then it appeared in the second place in spite of the competence added in the first position. The subsequent competences tended to be assessment, material development and classroom management. At the end, experts tended to include research and project management. Thus, it appears that experts went from the competences teachers needed in the classroom to the competences that made them a member of the educational community (research, project management and self-reflection). Consequently, it **seems that the idea of a good CLIL teacher is the one of an individual that has good teaching skills**, not of a person that is part of a teaching community. Equally interesting is the fact that those experts that added more than one competence to the top position or that did not put communicative competence at the top of the list tended to be teacher educators. Therefore, it appears that the description of the ideal CLIL teacher may vary depending on the background of the person describing this profile.

CLIL experts proposed adding some competences to the list. Two experts believed that coordination competence had to be added as a separate competence, although it was included within project management competence: “The collaboration between language and content teachers in a CLIL school. I think this is a key competence” (E1). The experts that proposed adding this competence conceptualised CLIL from an integrative approach. The other competences proposed were ethical commitment, digital competence and intercultural competence.

Experts were also asked whether content and language knowledge, as well as the theoretical underpinnings were requisites for a CLIL teacher. This question brought to light that there was **no single understanding of competence**. That is, there were some experts that used the term competence to refer to knowledge. Other experts believed that competences and requisites were the same; other did not make a distinction between language knowledge and communicative competence; another expert believed that it was not possible to have a list of CLIL teachers’ competences, because each teacher would need different competences according to the teaching context. All in all, the answers to this question revealed that the first step should

be to agree on what a competence is and what it represents. Additionally, the results seemed to explain why teachers' perceived not to have developed certain competences.

Despite the different understandings of competence, all experts believed that a **requisite** for CLIL teachers was **language knowledge** (Figure 40). "CLIL teachers should have high language proficiency, and high means a C1 level according to the CEFR" (E1). Additionally, experts believed that CLIL teachers needed a profound **content knowledge**, "teachers need to know the content to be taught" (E7). It makes sense that teachers are required to have language and content knowledge since these are the two curricular areas that are aimed to be worked.

Experts also considered that **theoretical underpinnings** were a requisite for a CLIL teacher. "It is difficult that you can explain what a register is, for instance, without the communicative and cognitive underpinnings that there are under a communicative situation" (E3). "Teachers need to know the origins of CLIL" (E4) and "some references to bilingualism and multilingualism" (E7) should be provided to CLIL teachers.

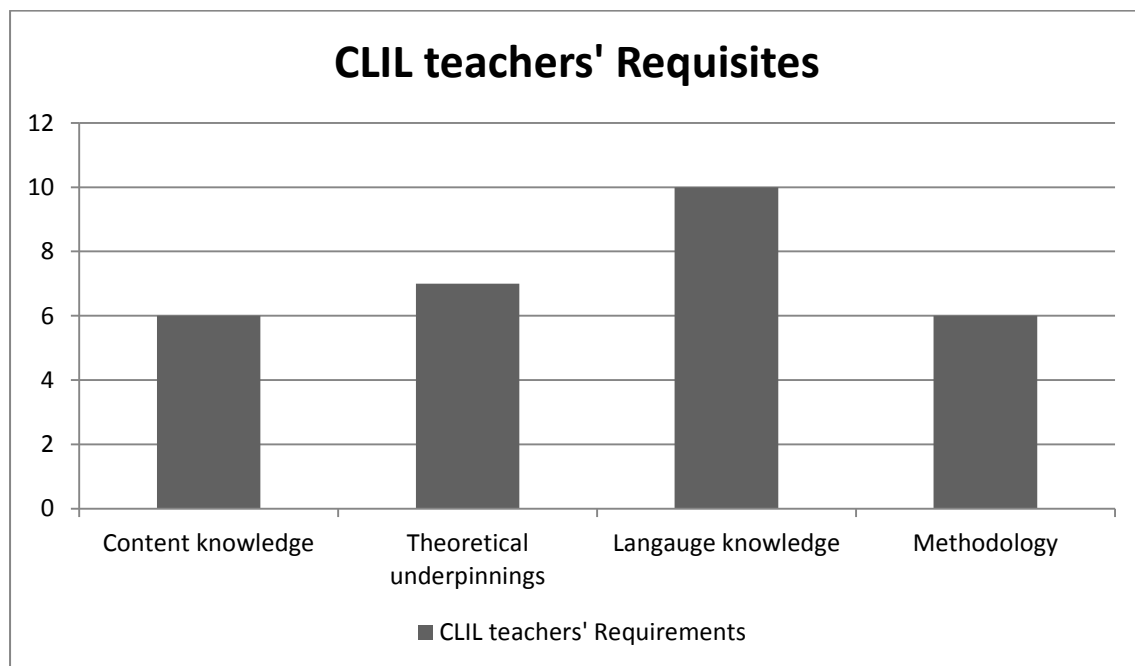


Figure 40. Teachers' requisites for CLIL teaching according to the experts.

Finally, even though methodology was considered a competence, some experts believed that **methodology** should be considered as a requisite for a CLIL teacher. "Language is necessary, but also methodology. CLIL is not just translating the content to an additional language" (E3). CLIL teachers need "the methodology associated with language and the methodology associated with content" (E5). However, as noted before, some experts used the term methodology as a synonym of pedagogy, while others used it as a term to refer to the teaching method.

It was explored whether there was a **relationship between experts' CLIL conceptualisation and the key competences and requisites identified** for a CLIL teacher. This exploration was done through the comparison of the interviews' coding. It was found that the experts that conceptualised CLIL as an integrative approach of content and language considered that methodology was a key competence for a CLIL teacher and that methodology should be a requisite for a CLIL teacher. Additionally, some of these experts believed that communicative competence was key for a CLIL teacher, as well as language knowledge. Surprisingly, this perception was not sustained for content knowledge since just three of the experts that defined CLIL as an integrative approach clearly stated that content was a requisite for a CLIL teacher. Finally, most of the experts that defined CLIL from an integrative point of view believed that CLIL theoretical underpinnings should be a requisite for CLIL practitioners.

Finally, the two experts that conceptualised CLIL from a methodological perspective agreed on identifying methodological competence as a key competence for a CLIL teacher. No agreement was found between the codes for communicative competence and all the other requisites.

Training Characteristics

The group of experts consulted also made some references to the characteristics of the training programme that should prepare and support teachers to implement CLIL both in the school and the classroom. Even though some experts commented on the importance of initial teacher education programmes, most of the mentioned characteristics referred to in-service teacher programmes. A possible explanation is that, currently, there is a lack of initial teacher education programmes that clearly prepare teachers for CLIL teaching. In fact, most training offered that could be considered pre-service teacher education would be a master's degree or a postgraduate course. However, these programmes are not strictly initial teacher education since in-service teachers can also participate in them.

According to the experts, **initial teacher education** should provide the necessary grounding for teachers to be able to implement CLIL. One of the main criticisms to pre-service teacher education was that it is not providing the necessary knowledge and competences to student teachers to face the challenges they will encounter in schools. For this reason, some experts believed that "initial teacher education should be a good example of curriculum integration and language integrated curriculum" (E5). Others went further and defended that "a specific path for future primary CLIL teachers" (E1) should be offered in initial teacher education.

Regarding the characteristics of **in-service teachers**, some experts considered that this training should be adjusted to the school's context and teachers' knowledge and experience about CLIL

and other approaches. The needs a teacher may experience in a CLIL setting may vary depending on

the experience the school has with CLIL, whether the teacher has carried out CLIL before; whether the teacher is new in the school; the experience the school management team has with innovative projects, the context where the school is located and students' needs (E3).

For this reason, some experts believed that the best training modality was **school-based training**. That is, providing training and support within the school context, counting with the already existing resources in the school and teachers' experience. Some experts considered that this would be the training that would have a higher impact on the school and students' learning.

I think school-based training is very important when teachers start a new project. That is, a person from outside the school is invited to come in to offer some training sessions and support. But the real work has to be at the school level, adapted to the school's needs, characteristics and teachers' characteristics. (E2).

CLIL experts did not reject theory, but they strongly believed that the training modality should be **practical** so as to help teachers to implement CLIL in the classroom.

Teachers need training, but it's the type of training they are getting that I think it's the big problem. [...] How will they [teachers] know, how do they know what to do when they walk in the classroom when they have been taught in the traditional method in their training session? (E10).

What all CLIL experts seemed to concur in was that CLIL training should be **continuous**. That is, training should be offered before a school decided to implement CLIL, before implementing CLIL, during the process and once the project would have been institutionalised. The training offered before deciding implementing CLIL should aim to offer a general overview of what CLIL is, what implications it has and what a school needs to implement CLIL. This information should help schools decide whether they want to implement CLIL and whether they are ready for it. "Training should be continuous. Thus, some initial training has to be offered before becoming a CLIL school, because if they [schools] don't know anything, it will be difficult to make thoughtful decisions." (E2).

The training offered before implementing CLIL should provide the knowledge and skills to be able to implement the project in the school and in the classroom. "It would be really convenient that there would be an initial training that, for instance, offered some theoretical basis" (E7). However, most CLIL experts believed that this initial training was not sufficient because teachers will confront several challenges that could have not been addressed in the initial training. "If you

want to assure that schools sustain CLIL and they improve their practice, they need continuous support. I think that this support makes a difference between a successful programme and one that doesn't succeed" (E6). Teachers need **continuous support** because "one thing is the problems you think they will encounter and another is the actual problems that arise in the classroom" (E8). Finally, some experts thought that some training should be offered once the CLIL project had been implemented and the first difficulties had been overcome. This training should "be linked to project's evaluation" (E5).

6.4.3. School Managers' Qualification for CLIL Implementation

The 10 Spanish CLIL Experts were also asked to give their opinion about the school management team's role in school-based CLIL implementation, the qualification leaders need to fulfil this role and the current training needs they have.

6.4.3.1. School Management Teams' Role

Experts saw the school management team as the group of people that had to create the right organisational conditions to implement the project in the school. Additionally, experts did not consider that school leaders were necessarily the ones having the initiative to implement the CLIL project. Albeit not having the initiative, **the school management team should provide and create the right organisational conditions** for its implementation.

If the school management team does not motivate the change, it is very difficult CLIL can be sustained. This doesn't mean that leaders have the initiative to implement CLIL, because teachers could propose implementing CLIL, but then it is the leaders' job to catalyse those ideas, organise them, make those ideas more concrete and work with teachers. (E2).

According to experts, if school leaders do not believe in CLIL and do not create the right conditions for its sustainability, the likelihood that the project disappears is higher:

We have been in schools that CLIL worked very well for some years and later, probably due to teachers' instability, CLIL disappears. Then, this is a problem because this goes against the project, the school and students' learning, what really matters. Then, monitoring and providing support are necessary for CLIL sustainability. (E8).

Some experts considered that the insufficient involvement of school leaders was due to their **lack of specific training and knowledge for CLIL implementation**. Experts namely identified four areas where school management teams needed further training: CLIL theoretical underpinnings, CLIL conceptualisation and curricular and organisational domains (Figure 41).

The area reported the most was organisation. When experts mentioned **organisational needs** they referred to project design and implementation, as well as its evaluation. As for **CLIL design and implementation**, experts believed that more training was needed on “how to adapt the project to the school’s context” (E7) and “how to implement CLIL in the school” (E5). Although these needs were more specific of school management teams, experts also identified training needs relative to distributed leadership. That is, “how to reconcile ideas that aren’t aligned, how to involve teachers in the project, how to identify the staff potentialities...” (E3).

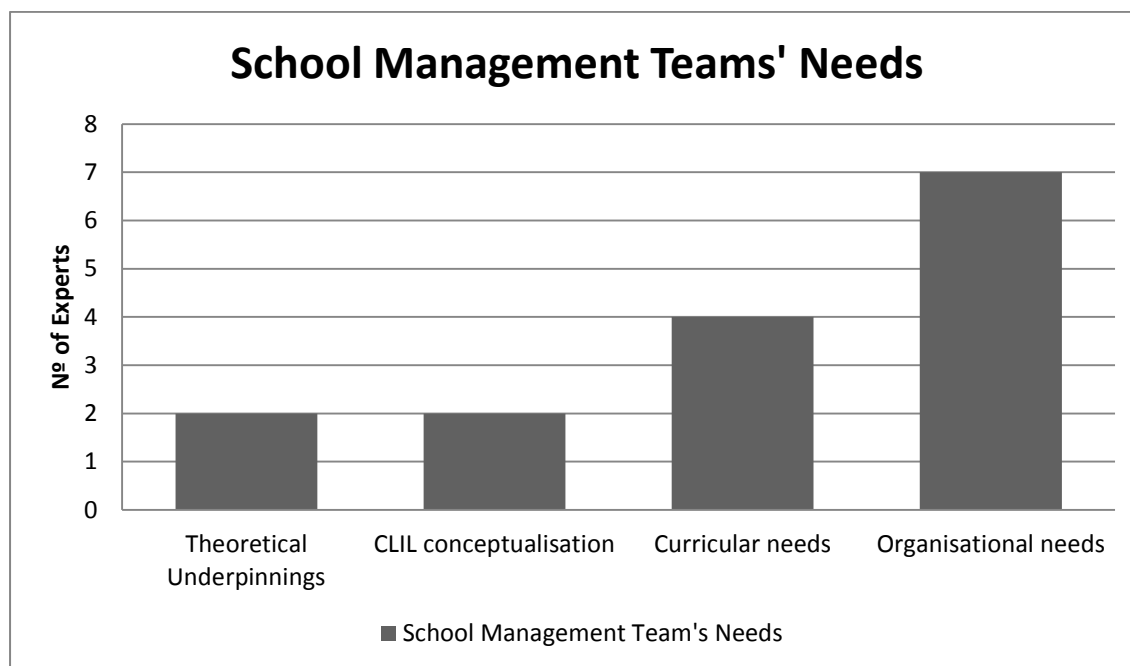


Figure 41. School Management Teams’ Training needs according to the experts.

As for **CLIL’s project evaluation**, experts believed that school management teams needed more training in order to know whether the project was working and what needed to be improved:

If you don’t know your [the school] evolution and the criteria you will use to assess this project, CLIL implementation, or any other project, will fail because you won’t know where you are going, you won’t be able to readdress the trajectory or to identify the difficulties that will arise. (E6).

Interestingly, CLIL experts thought that school management teams had training needs relative to evaluation mainly for two reasons. First, culturally, our society and our education system “are not pioneers in evaluation” (E5). In this way, experts considered that the lack of an evaluative tradition has as a result that leaders do not have enough competence or references to evaluate. Second, the educational administration is demanding new evaluation systems that account for school’s progress. These prescriptive demands might cause that school management teams considered that they did not have enough competence in this area.

CLIL experts also referred to school leaders' **curricular training needs**. The curricular training needs referred to methodological adaptations and curricular decisions on how to integrate different subjects, as well as language curriculum. "School management teams have an incomplete understanding of the importance to integrate the curricular languages" (E3). On the other hand, some experts believed that school management teams "do not need language and methodological training if they aren't the ones implementing CLIL in the classroom" (E5). However, although the organisational and curricular needs were related to CLIL implementation, it is also true that they did not seem specific for CLIL. That is, all school management teams should have enough organisational and curricular knowledge so as to implement innovative projects in their school and to identify and deal with the organisational and curricular implications of that project. Therefore, experts' perceptions seem to suggest two ideas. On the one hand, it could be that school leaders did not have previous experience on dealing with innovations. This could be caused by the instability of leadership positions, because of a lack of innovation or because of the lack of attraction for management positions. On the other hand, these needs could be caused by school management teams' inadequate qualification to lead school change since the requisites asked to access a management positions do not tend to be always aligned with the demands and responsibility of the job. If this case, school leaders would struggle with any innovation they tried to implement. However, it could also be that the difficulty was due to the insufficient understanding of the CLIL approach.

Some experts noted that **school management teams are not trained for CLIL** and, therefore, they do not have the sufficient knowledge to lead the project and make thoughtful decisions. "I know that school management teams do not understand CLIL and they have CLIL implemented. [...] As far as I know, they [school leaders] do not receive any specific training for CLIL implementation in Madrid." (E2).

School leaders do not know what a bilingual programme is. They do not know the difference between immersion and CLIL. They do not know the difference between language learning outcomes, which are the main concern of school management teams, but they don't pay attention to a more important aspect that is whether students acquire the curricular contents they have to learn (E1).

Therefore, it seemed that the **incomplete understanding of CLIL and its theoretical underpinnings** could be preventing school management teams to develop their main role: to create the favourable conditions (both organisational and curricular) to implement and institutionalise CLIL. Apparently, some school management teams intended to compensate their needs, demanding more training for their teachers on organisational aspects, such as the

school's project adaptation or CLIL project adaptation, as shown in study 3. However, CLIL experts strongly criticised that school management teams tried to compensate their needs putting that responsibility on teachers. The negative consequence of this strategy, among others, is that a school problem is divided in several smaller problems.

6.4.3.2. School Management Teams' Qualification and Type of training

The specific qualification experts proposed for school management teams from a school with a CLIL project aimed to overcome the identified training needs. According to the CLIL experts, school leaders need to receive **training on CLIL theoretical underpinnings and CLIL conceptualisation, as well as to develop project management competence** (Figure 42). As pointed above, experts do not believe school management teams need specific qualification to implement CLIL in the classroom if they are not in charge of that. In case a member of the school management team also applies CLIL in the classroom, he also needs the same training as any other teacher.

I think the members of school management teams are teachers and, therefore, understanding that all teachers should receive CLIL training, I think school leaders should have the same qualification as any other teacher, the same, apart from a specific qualification to manage the project. (E10).

Experts seem to consider that, if school management teams are already qualified for pedagogical leadership, what they need is **specific knowledge about CLIL** rather than a specific set of new competences. Basically, school leaders should understand what CLIL is and what implications it has at the organisational and curricular level basing all the decisions on the theoretical underpinnings beyond CLIL.

I think they [school management teams] should know the research on CLIL and bilingual programmes [...]. They need to know immersion results, the problems, the good and bad practices of CLIL. They must have this knowledge so as to adapt it to their school. (E7).

The training should be comprehensive; it should consider all the parameters that intervene when CLIL is implemented in a school. Then, the more global the vision about the implementation process, the better results you will obtain. [...] School leaders need a global and comprehensive vision of the whole process. (E8).

Almost all CLIL experts stress that training should enable school leaders to develop their **project management competence**. That is, the training should make the members of the school management team competent in leading a pedagogical innovation, encouraging collaboration, disseminating the project and its results, networking with other institutions, evaluating the

project, adapting and planning the project, as well as managing the school's resources and offering opportunities for teacher qualification.

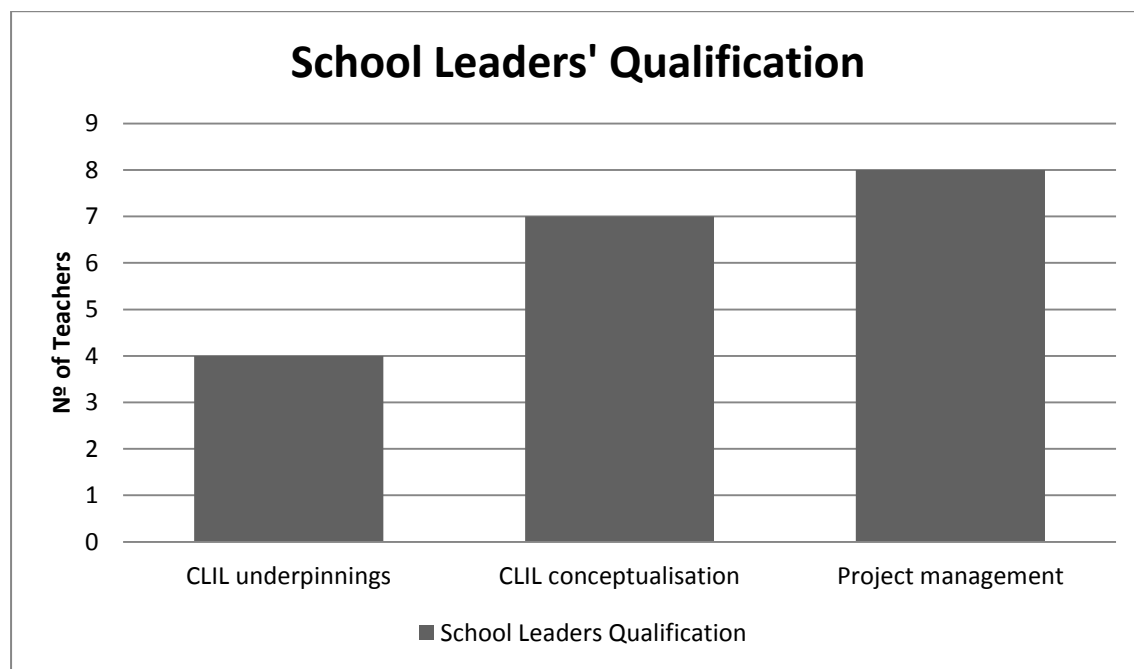


Figure 42. School Management teams' requisites and competences for CLIL implementation according to the experts

School leaders need to be able to lead a team, and to plan an education project or a pedagogical innovation that involves all the teaching staff. School leaders need to encourage teamwork, which is very important in a CLIL context. (E2).

Management teams should be able to plan a complex project in which there is the integration of more than one area, to support organisational planning and to network with other schools [...]. The training should help school leaders to prioritise resources, time management, coordination time and facilitate specific training for teachers. (E3).

Project management competence and all the subcompetences it involves are believed not to be exclusive of CLIL, but of any pedagogical innovation: "any innovation project would require this competence" (E5). Therefore, it would be expected that any school leader with specific qualification for this position, as well as experience, would already master this competence. Therefore, it appears that **the training for school management teams should be focused on CLIL peculiarities.**

In the same vein as with the CLIL teachers, **school management teams should be trained before implementing CLIL and during the process.** While, the **initial training** should offer a general understanding and overview of what CLIL is and how to plan its implementation, the continuous training should provide some guidance on how to solve the arisen problems and difficulties as a result of CLIL implementation.

I think it [the training] needs to be done before, during and after. So, they [school leaders] get theory before, they have all the tools they need and they may even have specific examples. But when they start implementing the project, a lot of unexpected things happen and they need someone to speak with to assure that either it is okay or maybe they can take another route to get to the same place. Afterwards, they also need to get together and talk about how they've done things, the problems and the success. (E9).

Due to the synergies between teachers and school leaders' training, some experts believed that **the CLIL training offered to teachers and the management team should be articulated**. That is, it would be important that both teachers and leaders would receive the same initial training relative to what CLIL is and what it implies so as to share the same understanding. Once the same codes would be shared, teachers and school leaders should receive separate and different training: teachers training should focus on CLIL implementation in the classroom, whereas school management team training should focus on school-based CLIL implementation. Some experts also believe that some continuous training on how to evaluate the project should be shared between the teachers and school leaders. "All the studies show that the most important fact on students' learning is that everyone has the same vision" (E9). "I think that each of them [teachers and school leaders] should delve into different areas, but there are some shared aspects. For instance, maybe everyone has to know the design and participate in the design." (E4).

Due to the relevance of articulating the training, some experts believe that the best training modality is **school-based training**. "Normally, this type of training is focused on on-site training, in which the same teachers, using their expertise, train each other." (E6).

Other experts consider that the best training modality for school leaders should be a combination of **theoretical and practical training**. This practical training could consist of visiting other schools with a CLIL project and observing how they were developing it.

A training possibility is to visit other schools with a CLIL project to see how they implemented CLIL. However, the training should balance practice and theory. Theory on its own won't work, practice in isolation either, because if you don't have a clear theoretical idea of what you want, observation on its own won't work. (E6).

In short, apparently, if school leaders had received a good training on pedagogical leadership, they should not struggle when implementing CLIL provided that they knew what CLIL is, its theoretical underpinnings and how to manage the project. The problem arises when the members of the school management team do not have this training or do not have experience on implementing innovation projects. On the other hand, according to the experts, on-site,

continuous and coordinated training with the teachers and a balance of theory and practice are the main characteristics of successful training programmes for school leaders.

6.4.4. Organisational Conditions for School-Based CLIL Implementation

CLIL experts referred throughout the interview to the organisational conditions for school-based CLIL implementation. More specifically, experts were asked to comment on the school-based modifications reported by school leaders due to CLIL implementation. Additionally, CLIL experts also mentioned some actions that would improve school-based CLIL implementation.

From the inductive analysis of CLIL experts interviews and the comparison of the inductive coding with the theoretical framework, **ten conditions for school-based CLIL implementation were identified:** 1) leadership; 2) needs analysis; 3) planning; 4) staff involvement; 5) teacher qualification; 6) organisational and curricular modifications; 7) coordination; 8) evaluation; 9) collaboration with other institutions; and, 10) dissemination (Figure 43).

Half of the experts consulted (5 out of 10) believe that **leadership** is a key condition for CLIL implementation. As already mentioned in the section *School Management Qualification for CLIL implementation*, experts consider that school leaders' main role is to believe in the project and provide the organisational conditions for its implementation. Therefore, according to the experts, "it is impossible that any innovative project is institutionalised if the school management team isn't committed to the project" (E2). In fact, leaders may play a key role in teacher qualification since the management team can help teachers "to become aware of their training needs" (E4) and "motivate teachers to participate in training sessions" (E7). However, leaders' main role should be "making the teaching staff aware that the CLIL project isn't someone's project, but part of the school's project. Therefore, teachers need to be qualified to carry the project out." (E5).

However, leadership is necessary, but not enough to implement and institutionalise a pedagogical innovation. According to some CLIL experts, the first step before deciding to start a CLIL programme should be carrying out a **needs analysis**. In other words, it should be analysed whether CLIL is the change the school needs according to the current situation. To make this decision, the students' outcomes, teachers' practices, the use of resources, among other things, should be evaluated and reflected on.

We should first analyse how we are teaching English in our school; how we are optimising the resources; how we are analysing the teaching practices; what results we are obtaining; if we aren't obtaining the best results, how we could create an improvement plan with the resources we have. And, only after exhausting all these, what else can we do? It seems that CLIL sometimes is implemented to compensate the unsatisfactory results without analysing all the rest. (E5).

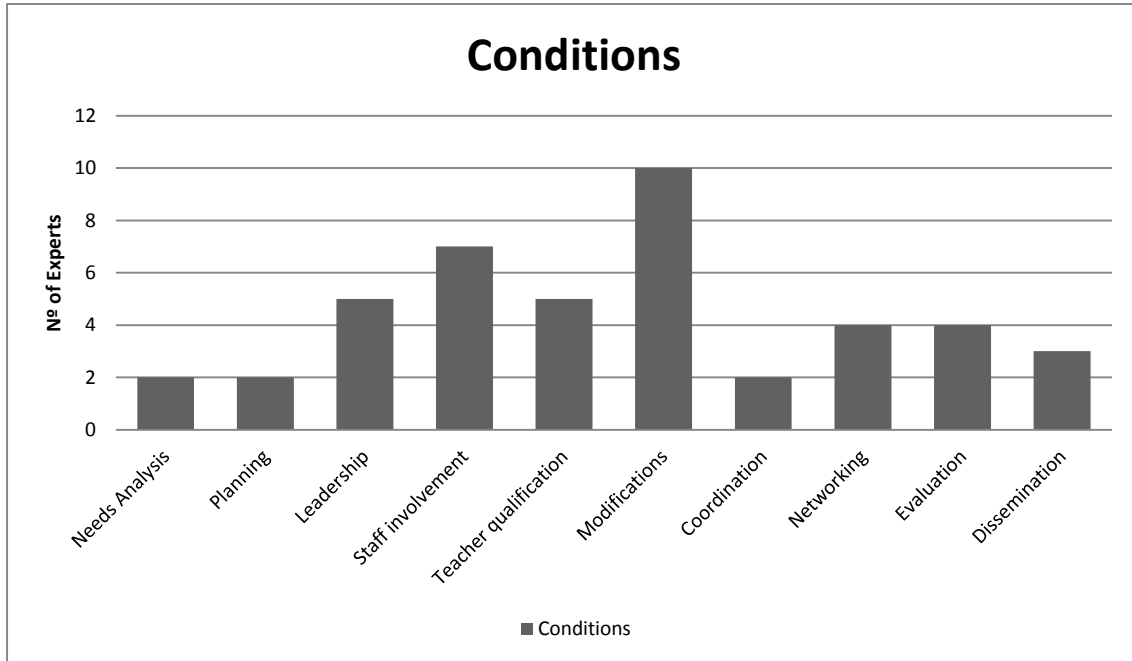


Figure 43. Organisational conditions for school-based CLIL implementation reported by CLIL experts.

On the other hand, another expert considered that schools were afraid of implementing CLIL. However, this expert believed that schools should think: “what can I do with what I have? How can I carry it out?” (E3). Otherwise, schools may stay in their comfort zone instead of trying to implement pedagogical innovations.

One important condition to ensure CLIL sustainability is **planning the implementation process**. According to the CLIL experts consulted, on the one hand, this planning should establish the route map that is aimed to be followed “indicating a clear horizon and monitoring what we are doing” (E5). On the other hand, it is necessary that this planning is adjusted to the contextual characteristics of the school, as well as it takes into account the school’s education and language project. For instance, “if you are in a Spanish dominant context and you introduce CLIL, you need to think about compensation mechanisms so that students can still achieve a high command in the Catalan language” (E6).

Even though CLIL could be implemented in a pilot form at the beginning, it should be planned how the whole **teaching staff would be involved** and how the innovative practices implemented

in a specific setting would be transferred to other scenarios. Not only is it important that CLIL is understood as part of the school's project, but not doing it can be dangerous. As it has already been stated, if CLIL depends on a single or a reduce number of teachers, it has the seeds of its own destruction. "CLIL is not the English teachers' project, but the school's project. Therefore, there needs to be a general integration of content and language." (E7), "the whole school needs to be a CLIL school" (E10). For this reason, CLIL experts insist on implementing CLIL in more than just a course, otherwise "CLIL would be an isolated experience that would not have an effect on students' learning" (E6).

The transition periods, from primary to secondary, are especially important. Let's imagine a good CLIL project at the primary level, but, then, students go to secondary education and in that secondary school there isn't a CLIL project. All the work could be lost. (E5).

Having **qualified teachers within the CLIL approach** is a necessary condition not just for CLIL implementation, but, above all, for its institutionalisation. However, it seems that the main threat for CLIL sustainability is the scarcity of qualified teachers for CLIL: "unfortunately, CLIL projects sometimes depend on a single teacher" (E6). Due to CLIL teachers' relevance on students' learning and CLIL sustainability, the experts suggest some actions to qualify teachers within the CLIL approach, such as: "making teachers aware of the training benefits on the school" (E7); "asking for the support of external institutions like publishing houses or universities" (E1); "developing a training plan, with its calendar, actions and contents" (E1); or "facilitating the access and attendance to training sessions" (E9).

The **curricular and organisational modifications** are another necessary condition for CLIL implementation. If CLIL has to be part of the school project, its implementation will imply rethinking the curriculum and the school's organisation. According to the experts, the curricular decisions namely affect: language curriculum, curriculum integration, content selection, methodology and assessment. With regards to **language curriculum**, experts believe that CLIL implementation should imply a reflection on two issues of language curriculum: on the one hand, how language curriculum would be affected by CLIL implementation and, therefore, how the way language is worked should be modified. On the other hand, another aspect to think about is how curricular languages should be integrated, because "it is important not to isolate the CLIL language from the other curricular languages." (E7).

We cannot start from the idea that if students know the language, they will succeed in CLIL. We need to look deeper, because each subject has its own genres, academic language... It is not the same the language you need for a narrative than for a descriptive text. (E1)

It seems that CLIL is only about content learning. Evidently, if we integrate the foreign language, the synergy effect can be bigger. If the communicative competence is worked in the language classroom, the content teacher will be able to base his teaching on what the students have learnt in the language subject and, therefore, we will obtain better learning results. (E2).

This leads to the second identified curricular modification: **curriculum integration**. In fact, this modification is one of CLIL's hallmarks. It should be reflected at the school level how content and language curriculum will be integrated and what implications this integration will have. One expert stressed the need to establish some criteria to select the curricular content for CLIL:

The [content] selection criteria are often based on preferences rather than an in-depth analysis of content potentialities. [...] It is probably easier to teach a CLIL module when the contents are cyclical, which are worked in different courses, because students have previous knowledge. (E5)

However, the curricular modification the experts report the most is **methodology**. Interestingly, almost all experts mention methodology as a modification, but not curricular decisions. However, when methodological modifications are mentioned, it is always said that methodological changes are due to curricular integration. Experts believe that these methodological modifications occur "when they affect more than a single teacher" (E6). However, one current threat for CLIL sustainability is that "methodological modifications tend not to be worked at the school level. That is, these modifications happen, but they don't necessary imply a school-wide reflection." (E5).

All these methodological and curricular modifications could affect students' assessment. **Assessment** should be modified because "it [assessment] should consider not only language and content, but also how students' integrate these contents and transfer them to other learning situations" (E3).

In terms of **organisational modifications**, experts namely mention two organisational modifications: the use of time and the schools' educational project and linguistic project. As for **time**, experts tend to conceptualise time as a resource. Consequently, they consider that the use of time should be adjusted to CLIL demands: on the one hand, to allocate time for teachers' collaboration and planning and, on the other hand, to revise students' schedule. Interestingly, experts do not think that students' schedule is a major modification, despite being "the first

modification families will perceive” (E3) and “more practical” (E5). However, students’ schedule modification should not be conceived as a superficial change since, technically, it should be the result of a collective reflection and based on students’ needs and the school’s resources.

As for the **school’s educational project and linguistic project**, experts stress the importance of establishing “CLIL’s philosophy” (E4). That is, how CLIL is understood and how languages will be treated. According to the experts, it should be avoided that both the school’s project and the linguistic project are seen as a document demanded by the Educational Administration, but as a document that “establishes the school’s aims and how these aims will be achieved” (E10) and “all the decisions made in terms of the organisation and the curriculum” (E5).

As noted above, the consulted experts consider **coordination** as the cornerstone for CLIL implementation and success. Coordination may be even more necessary when teachers are specialised in a curricular area and they may not be sufficiently qualified for CLIL. However, coordination should not only include those teachers whose subjects are involved in CLIL, but all the teaching staff. In fact, curricular modifications, such as language curriculum integration, will not be possible if teachers do not work collaboratively. “Teacher collaboration is a key condition for CLIL implementation” (E1). However, it is worth noting that most experts refer to coordination as a training need or a key competence for a CLIL teacher, but experts barely mention coordination as a condition for school-based implementation.

Another key condition for successful school-based CLIL implementation is **evaluation**. Experts believe that the project should be continuously evaluated to ensure that it is working and it is beneficial for students’ learning. According to some of the consulted experts, one of the main threats for CLIL is to conceptualise it either as a trend or as an approach that it is always beneficial for students’ learning. “CLIL has been glorified but its strengths will depend on the context, how it is implemented, teachers’ training ... [...] Therefore, it is necessary a continuous evaluation of the project to see how it is working.” (E7). This evaluation should be done at different levels: students’ learning, teachers’ satisfaction, goals achievement, leadership, decisions effectiveness ... (E3). This evaluation should encourage a “reflection about the results obtained and the problems the school is facing.” (E8).

Experts agree that CLIL implementation is an arduous process. Consequently, **collaborating with other institutions** could facilitate this process. This collaboration could have different objectives and involve diverse stakeholders. An objective of this collaboration could be “providing or receiving support from other schools that are implementing CLIL” (E6). Sharing experiences with

other school could facilitate the anticipation of possible problems or difficulties, observing different solutions to the same problem and providing or receiving feedback about CLIL implementation, among others. This collaboration should not necessarily have to be done with other schools' implementing CLIL. Schools could "establish a network with universities" (E2) who could train teachers, as well as help the school to implement and evaluate the CLIL project.

Related to the collaboration with other institutions, a necessary condition for CLIL implementation is to **disseminate** the results and the project with the educational community. Dissemination appears to be important for school learning: "In our context, when there has been communication, they [teachers] have learnt a lot from each other, even though this communication has been informal. They learn a lot from the other schools." (E8). Nevertheless, disseminating the school's projects is not a common practice in the Spanish context. "In general, schools tend to focus on what they receive rather than on what they can give." (E2).

In short, experts refer to 10 conditions for school-based CLIL implementation: leadership, needs analysis, planning, staff involvement, teacher qualification, organisational and curricular modifications, coordination, evaluation, collaboration with other institutions and dissemination. However, it is the presence and integration of these ten conditions what can favour CLIL sustainability. Nevertheless, experts also identified some of the main threats for each of these conditions, being the most prominent: the lack of qualified teachers for CLIL, teacher collaboration, the evaluation of students' learning and collaboration with other institutions.

6.4.5. Results' Summary

Study 4 aimed to know Spanish CLIL experts' opinion about CLIL teachers' qualification and school-based conditions that favoured CLIL implementation. The analysis of the experts' semi-structured interviews reveals that **experts understand CLIL from three different perspectives**: as an integrative approach, as a methodological approach and from a language perspective. Related to this conceptualisation, the **interviewees report some CLIL potentialities**, such as students' language learning, and **opportunities**.

According to CLIL experts, **the ideal CLIL teacher's profile would be that one of a double specialist or the result of team-teaching**. However, experts are aware that these two options are currently a desire rather than a reality. For this reason, they believe that language or content teachers have to be in charge of CLIL depending on the contextual characteristics of the school and grade where CLIL is implemented.

With regard to **teachers' qualification**, experts concur in identifying **several training needs**, being language knowledge and methodology the most commonly referred. These training needs are believed to be prescriptive and perceived, as well as the result of the training provided during initial teacher education. Interestingly, experts do not consider that these training needs are CLIL specific, although CLIL can make them more prominent. However, the interviewees think that content and language integration and coordination are especially relevant for CLIL. Based on previously identified competences, experts tend to believe that **CLIL teachers' key competences** are those that are closely linked to teaching in the classroom. The analysis of the interviews reveals that there is no single understanding of the term competence and, therefore, this could be affecting teacher training. Nevertheless, experts agree that content knowledge, language, CLIL theoretical underpinnings and methodology are necessary requisites for CLIL teachers. Initial teacher education and school-based training are believed to be key for qualifying teachers for CLIL.

All experts concur in defining the role of **school management teams as the ones in charge of providing the right conditions for CLIL implementation**. However, the main threat for school leaders to accomplish this role is their **lack of knowledge about CLIL or experience in CLIL implementation**. For this reason, experts believed that school management teams should receive training on CLIL theoretical underpinnings, CLIL conceptualisation and project management competence. The interviewees think that continuous training is the best option for school leaders. Additionally, school management teams and teachers' training should be articulated and school-based.

Finally, as for school-based conditions for CLIL implementation, experts refer to 10 conditions and some current difficulties and barriers schools had relative to these conditions. Even though these 10 conditions are presented separately, it is the integration of all of them what can facilitate CLIL institutionalisation.

Chapter 7. Results Block II: Experimental study

This chapter includes the results of the quasi-experimental study. The fifth study aimed to evaluate longitudinally the effects of the competence-based approach on the development of pre-service teachers' CLIL competences. The training design was implemented and evaluated with pre-service teachers enrolled in the double degree of infant and primary education (n=39). The experience took place in the courses *Planning Design and Assessment of Learning and Teaching Activity* (1st course, 2nd semester) and *Educational System and School Organisation* (2nd course, 1st semester). The design was evaluated with a self-perceived competence level questionnaire, which was administered to the experimental group and the control groups, and students' marks and assignments.

This chapter includes the results obtained from the analysis of the self-perceived competence level questionnaire and the marks obtained in the different assignments. The results obtained in each course will be analysed first separately and, afterwards, pre-service teachers' perceptions and marks will be analysed longitudinally.

7.1. Results of Planning, Design and Assessment of Teaching and Learning Activity Course.

This section includes the analysis of pre-service teachers' perceived competence level for *Planning, Design and Assessment of Teaching and Learning Activity* course. This experience was developed during the second semester of the academic year 2016-2017. The pre-test results will be presented first. Then, the post-test results will be analysed and, finally, the pre- and post-test results will be compared.

7.1.1. Pre-test Results of the Planning, Design and Assessment of Teaching and Learning Activity course

The self-perceived competence level questionnaire was administered to the experimental group and the two control groups in February, 2017 during the first day of class through Google Forms. The number of filled questionnaires was 42 for the experimental group, 30 for control group 1 and 38 for control group 2 (Table 94).

Table 94. *Number of filled questionnaires(pre-test, course 1).*

Group	Number of filled questionnaires	% of questionnaires in relation to total number of students
Experimental group	42	100%
Control group 1	30	63,83%
Control group 2	38	80,85%

7.1.1.1. Reliability and Data Distribution

Before analysing students' perceived competence level and the starting point of the three groups, the consistency of the questionnaire was explored. For this reason, Cronbach's Alpha was calculated for the three participating groups. The results indicate that the reliability of the questionnaire was high since, in all cases, Cronbach's Alpha was almost equal or even greater than $\alpha = .95$ for the control groups as well as for the experimental group (Table 95), a value that has been considered an indicator of excellent consistency (Corral, 2009). However, such a high result can be a consequence of the number of items in the questionnaire (30 items), as well as that some items measured the same competence (Cortina, 1993).

Table 95. Cronbach's Alpha Results for the first course's pre-test.

Group	Cronbach's Alpha	Cronbach's Alpha based on the standardised items	Number of items
Experimental	.961	.963	30
Control 1	.948	.951	30
Control 2	.948	.955	30

Once the consistency of the results was assured, it was analysed whether data was normally distributed for all three groups through Kolmogorov-Smirnov and Shapiro Wilk tests. The analysis of the results indicated that the data obtained for the items related to self-reflection, communication, methodology, assessment and materials development competences, as well as content knowledge requisite were normally distributed in all cases according to the parameters of Kolmogorov-Smirnov test, and in most cases, according to the parameters of Shapiro Wilk. However, as for language knowledge, some outliers were identified and removed from the analysis. In this way, the data was normally distributed.

The data relative to the marks obtained in *Planning, Design and Assessment of the Teaching and Learning activity* were also analysed for normality of distribution. However, some of the marks were not normally distributed. After applying several procedures to get the data normalised, it was not possible to normalise it. Therefore, all the tests used for the analysis of students' marks will be non-parametric.

7.1.1.2. Within-Groups Comparison: Pre-Test Course 1

Once data reliability and normal distribution had been assured, it was explored whether the items used to assess a competence were correlated and if there was a main effect of item. This analysis allowed to know if the starting point of each assessed competence was homogeneous

or, on the contrary, whether participants perceived that they had some dimensions more developed than others.

Regarding **self-reflection** competence, the perception of the participants from the experimental and control groups was consistent since the values given to the different items, which measured this competence, correlated. These correlations tended to be moderate to strong for the experimental (.349, $p=.025 < r < .486$, $p=.001$) and the control group 1 (.375, $p=.045 < r < .655$, $p<.001$). In contrast, for control group 2, the results did not correlate. It was analysed whether there was a main effect of item; that is, if students' perceptions for each item were significantly different (Table 96). The ANOVA indicated that there were significant differences between the perceived competence for each of these items for both the experimental group ($F(1,40)=1956.49$, $p<.001$, $\eta^2=.98$) and control groups 1 ($F(1,28)=1090.54$, $p<.001$, $\eta^2=.97$) and 2 ($F(1,37)=869.73$, $p<.001$, $\eta^2=.96$). For the experimental group, the significant differences were between item 2 and items 1 ($p=.037$) and 3 ($p=.004$). Likewise, the significant differences for control group 1 were between the item 2 and items 1 ($p=.001$) and 3 ($p=.022$). However, for control group 2, the differences were between the items 2 and 3 ($p=.012$). Therefore, it seems that students had more difficulties to recognise and identify their own beliefs about content and language integrated learning at the beginning of the course than for all the other items assessing self-reflection competence.

Table 96. Means and Standard deviations for self-reflection competence (pre-test, course 1).

ITEM	EXPERIMENTAL		CONTROL 1		CONTROL 2	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
To identify and reflect on my own beliefs relative to the teaching and learning process.	7.43	1.23	7.13	1.52	6.32	1.81
To recognise and identify my own beliefs about content and language integrated learning.	6.90	1.57	6.40	1.22	5.66	1.7
To explore and reflect on my own teaching characteristics, potentialities and areas of improvement.	7.81	1.15	7	1.46	6.84	1.97
Competence mean	7.38	1.07	6.9	1.12	6.25	1.29

As for **communicative competence**, the results of the correlations indicated that all items assessing this competence correlate significantly for the experimental group (.497, $p=.001 < r < .780$, $p<.001$), and the control groups 1 (.425, $p=.024 < r < .706$, $p<.001$) and 2 (.456, $p=.005 < r < .655$, $p<.001$). Following the same procedure as the previous competence, an ANOVA was run

for each group with the aim to assess whether there was a main effect of item. Again, the results indicated that this effect existed, showing that there were significant differences between the perceived competence level for each one of the items that measured communicative competence (Table 97), for the experimental group ($F(1,39)=1085.137, p<.001, \eta^2=.965$), control group 1 ($F(1,27) = 1364.60, p<.001, \eta^2= .98$) and control group 2 ($F(1,36)= 835.68, p<.001, \eta^2=.96$). The pairwise comparisons revealed that the significant differences were between the item 2 and the items 3 ($p=.05$) and 4 ($p=.001$) for the experimental group. However, no significant differences were found for the control groups.

Table 97. Means and standard deviations for communicative competence (pre-test, course 1).

ITEM	EXPERIMENTAL		CONTROL 1		CONTROL 2	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
To identify the characteristic use of the language in a specific field of knowledge.	6.37	2	5.83	1.34	5.74	1.29
To identify the language aspects that are aimed to be developed in a given didactic unit.	6.95	1.6	6.38	1.37	5.89	1.59
To plan how to work the language in a given topic.	6.51	1.45	6.41	1.15	5.61	1.79
To identify different methodological approaches to work and acquire the language.	6.27	1.58	6.28	1.19	5.71	1.51
To design learning proposals which include the basic principles of second language acquisition.	6.78	1.17	6.55	1.21	5.97	1.4
Competence Mean	6.56	1.35	6.33	.89	5.8	1.22

Regarding the **methodological competence**, the results of the correlations indicated that students' perceptions regarding this competence were consistent since the correlations were moderate to strong for the experimental ($.339, p=.030 < r < .573, p<.001$) and control groups 1 ($.426, p=.026 < r < .755, p<.001$) and 2 ($.354, p=.032 < r < .780, p<.001$). As for a main effect of item (Table 98), the ANOVA indicated that there were significant differences for both the experimental group ($F(1,40)= 1703,021, p<.001, \eta^2 =.98$), the control group 1 ($F(1,29)=1113,4, p<.001, \eta^2=.98$) and the control group 2 ($F(1,37)= 963,757, p<.001, \eta^2= .965$). However, the pairwise comparisons with the significant values adjusted did not reach significance.

Regarding **assessment competence** (Table 99), the results of the correlations showed that students' perceptions regarding this competence were stable because the correlations were high and significant for the experimental ($.553, p<.001 < r < .701, p<.001$) and control groups 1

(.472, $p < .010 < r < .749$, $p < .001$) and 2 (.501, $p = .002 < r < .617$, $p < .001$). However, the results of the ANOVA indicated that pre-service teachers did not believe they had the same competence level for all items. This was true for the experimental group ($F(1,39) = 891,811$, $p < .001$, $\eta^2 = .96$), the control group 1 ($F(1,28) = 1014,035$, $p < .001$, $\eta^2 = .97$) and the control group 2 ($F(1,36) = 767,899$, $p < .001$, $\eta^2 = .96$). Nonetheless, the pairwise comparisons revealed that, when the significance values were adjusted to the number of comparisons, there were no significant differences.

Table 98. Means and standard deviations for methodological competence (pre-test, course 1).

ITEM	EXPERIMENTAL		CONTROL 1		CONTROL 2	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
To plan teaching and learning proposals that integrate content and language.	6.68	1.44	6.37	1.45	5.97	1.35
To identify and align competences, learning outcomes, content and assessment criteria.	6.37	1.45	6.63	1.33	5.79	1.47
To propose learning activities that allow students to achieve the competences, learning outcomes and contents.	6.90	1.1	6.67	1.7	6.11	1.61
To sequence learning activities so that students become more autonomous during the unit.	6.73	1.32	6.4	1.28	5.68	1.46
To choose the methodological approach according to the content characteristics, the learning outcomes and competences students have to achieve.	6.29	1.38	6.1	1.13	6.13	1.44
Competence mean	6.6	1	6.47	1	5.92	1.16

Table 99. Means and standard deviations for assessment competence (pre-test, course 1).

ITEM	EXPERIMENTAL		CONTROL 1		CONTROL 2	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
To establish an assessment system that enables to identify and inform about student's learning process.	6.12	1.71	6.67	1.27	5.92	1.63
To determine what strategies and instruments will be used to assess the level of attainment of the learning outcomes.	6.44	1.31	6.23	1.17	5.84	1.81
To propose an assessment system which allows to identify content level of attainment without being limited by language knowledge.	5.88	1.82	6.2	1.4	5.55	1.27
To establish a mechanism to evaluate the teaching practice.	6.24	1.45	6.47	1.41	5.89	1.45
Competence mean	6.22	1.3	6.43	1.09	5.8	1.27

Regarding **material development** competence (Table 100), correlations were moderate to strong for the experimental group (.387, $p=.014 < r < .633$, $p<.001$) and control group 2 (.441, $p=.007 < r < .623$, $p<.001$). As for control group 1, the results of the different items did not correlate. The results of the ANOVA indicated that there was a main effect of item; that is, students' perceived that their competence level varied depending on the item assessed. This was the case of the experimental group ($F(1,39)=1666,314$, $p<.001$, $\eta^2=.98$), control group 1 ($F(1,28)=1299,90$, $p<.001$, $\eta^2=.98$) and control group 2 ($F(1,35)=862.53$, $p<.001$, $\eta^2=.96$). The pairwise comparisons revealed that the significant differences for the experimental group were between item 2 and items 3 ($p=.047$) and 4 ($p=.025$). No significant differences were identified for the control groups.

Table 100. Means and standard deviations for material development competence (pre-test, course 1).

ITEM	EXPERIMENTAL		CONTROL 1		CONTROL 2	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
To establish criteria to search and select teaching and learning materials and resources.	6.85	1.37	6.7	1.29	5.73	1.59
To assess the materials selected in terms of the extend they allow to work both the content and language, as well as to assess the learning outcomes and competences.	6.44	1.57	6.23	1.22	6.14	1.57
To sequence learning activities to work the contents progressively.	7	1.29	6.63	1.22	5.68	1.45
To anticipate the areas where it will be necessary to look for supplementary material to reinforce or expand a given content.	7.02	1.19	6.77	1.63	5.97	1.5
Competence mean	6.86	1.06	6.62	.99	5.9	1.2

In relation to **classroom management competence**, the results of the correlations indicated that the perceived level of competence of the experimental group (.444, $p=.004 < r < .613$, $p<.001$) and the control group 2 (.532, $p=.001 < r < .740$, $p<.001$) were consistent since the correlations were moderate to high. In contrast, correlations for control group 1 were moderate or not significant (.255, $p=.182 < r < .403$, $p<.030$). The ANOVA results showed that there were significant differences within the three groups' perceived competence level (Table 101): the experimental group ($F(1,40)= 1572,320$, $p<.001$, $\eta^2=.98$), the control group 1 ($F(1,28)=1153,034$, $p<.001$, $\eta^2=.98$) and the control group 2 ($F(1,35)= 738,851$, $p<.001$, $\eta^2=.96$). The pairwise

comparisons revealed that there was only a significant different between the items 3 and 4 for the control group 1 ($p=.009$).

Table 101. Means and standard deviations for classroom management competence (pre-test, course 1).

ITEM	EXPERIMENTAL		CONTROL 1		CONTROL 2	
	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.
To identify different strategies to manage the social dynamics in the classroom.	6.86	1.5	6.63	1.42	5.95	1.53
To select different strategies to manage classroom diversity.	6.88	1.17	6.93	1.44	6.43	1.83
To identify strategies to encourage students' participation.	7.07	1.39	7.3	1.64	6.57	1.73
To use different strategies to manage time and space.	6.93	1.5	6.43	1.39	6.16	1.46
Competence mean	6.96	1.12	6.88	1.09	6.2	1.37

Finally, as regards **language and content knowledge** requisites (Table 102), the results of the correlations pointed a certain correspondence between students' perceived knowledge level for the diverse items analysed. These correlations were moderate to high for the experimental group ($.346, p=.027 < r < .816, p<.001$), the control group 1 ($.421, p=.026 < r < .622, p=.001$) and the control group 2 ($.338, p=.041 < r < .725, p<.001$). However, the case of the item "identifying the characteristic features of a field of knowledge" stands out because it does not correlate with any of the others for any of the three groups. The ANOVA showed a main effect of item for the experimental group ($F(1,39)= 516,120, p<.001, \eta^2=.93$), the control group 1 ($F(1,26)= 466,059, p<.001, \eta^2=.95$) and control group 2 ($F(1,34)= 278,559, p<.001, \eta^2=.89$). The pairwise comparisons revealed that there were significant differences for the experimental group between the item 1 and items 2 ($p=.003$) and 3 ($p<.001$). For the control group 1, there was a significant difference between item 1 and items 2 ($p=.002$) and 3 ($p=.017$). Likewise, there was a significant difference between the item 1 and items 2 ($p=.001$) and 3 ($p=.003$) for control group 2. For the three groups, students perceived they were better at comprehending texts in an additional language than producing them.

As for **content** knowledge, the t-tests revealed that there was a significant difference between the two items that assessed the perceived level of content knowledge for the experimental group ($p=.013$) and the control group 2 ($p=.003$), but not for control group 1.

Table 102. Means and standard deviations for language and content knowledge (pre-test, course 1).

ITEM	EXPERIMENTAL		CONTROL 1		CONTROL 2	
	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.
To identify the main ideas of a text (written and oral) about educational issues in an additional language.	7.05	1.81	5.75	1.43	5.77	1.88
To produce texts (oral and written) about topics related to education in an additional language.	6.40	2	4.86	1.24	4.46	2.16
To manage the classroom and give information in an additional language.	5.98	2.02	4.89	1.69	4.49	2.29
Language knowledge mean	6.39	1.8	5	1.43	5	1.78
To identify the characteristics of a field of knowledge and consider this characteristics in the planning.	6.58	1.36	5.93	1.25	5.6	1.42
To design a didactic unit that integrates content and language that is grounded on theory.	6.2	1.71	5.75	1.24	5.23	1.516
Content knowledge mean	6.35	1.39	5.37	1.01	5.15	1.36

After analysing the consistency and variability of students' answers within the same competence, it was studied whether there was a main effect of competence. That is, whether participants from the three groups perceived that they had these competences and requisites equally developed (Table 103). The ANOVA results indicated that there was an effect of competence for the experimental group ($F(7)= 8,792$, $p<.001$, $\eta^2=.180$), the control group 1 ($F(7)=25,647$, $p<.001$, $\eta^2=.478$) and control group 2 ($F(7)= 8,924$, $p<.001$, $\eta^2=.199$).

Table 103. Means and standard deviations for language and content knowledge (pre-test, course 1).

Competences and Requisites	EXPERIMENTAL		CONTROL 1		CONTROL 2	
	\bar{X}	S.D.	\bar{X}	S.D.	\bar{X}	S.D.
Self-reflection competence	7.38	1.07	6.9	1.12	6.25	1.29
Communicative competence	6.56	1.35	6.33	.89	5.8	1.22
Methodological competence	6.6	1	6.47	1	5.92	1.16
Assessment competence	6.22	1.3	6.43	1.09	5.8	1.27
Materials development competence	6.86	1.06	6.62	.99	5.9	1.2
Classroom management competence	6.96	1.12	6.88	1.09	6.2	1.37
Content knowledge	6.35	1.39	5.37	1.01	5.15	1.36
Language knowledge	6.39	1.8	5	1.43	5	1.78

In the case of the **experimental group**, the significant differences were found between self-reflection competence and communicative ($p < .001$), methodological ($p < .001$), assessment ($p < .001$) and materials development ($p = .005$) competences, as well as content ($p < .001$) and language knowledge ($p = .024$). In general, teacher students in the experimental group perceived that their self-reflection competence was more developed than the other competences and requisites at the beginning of course 1. There was also a significant difference between assessment competence and methodological ($p = .014$), material development ($p < .001$) and classroom management ($p < .001$) competences. In this case, the results suggested that students perceived that their level for assessment competence was significantly lower than the other competences. There was also a significant difference between students' perceptions for methodological competence and classroom management competence ($p = .021$). This indicates that students perceived that the latter competence was more developed than the methodological one. Therefore, the participants of the experimental group did not consider they had all the competences and requisites developed to the same extent (Figure 44).

Regarding **control group 1**, the results showed that the significant differences were between communicative competence and self-reflection ($p = .018$) and classroom management ($p = .016$) competences. In all cases, pre-service teachers perceived that their communicative competence level was significantly lower than the rest. There was also a significant difference between classroom management and methodological competences ($p = .031$). In this case, the participants considered that their methodological competence was less developed than classroom management. Surprisingly, teacher students believed that content and language knowledge requisites were significantly less developed than all the competences analysed.

With regard to **control group 2**, participants perceived that their competence level was similar for all competences. However, there were significant differences for content and language knowledge. As for content knowledge, students' perceived that their content knowledge was significantly lower than all the other competences. Regarding language knowledge, it differed significantly with classroom management competence ($p = .022$). In this case, participants believed that their language knowledge was lower than their level of classroom management competence

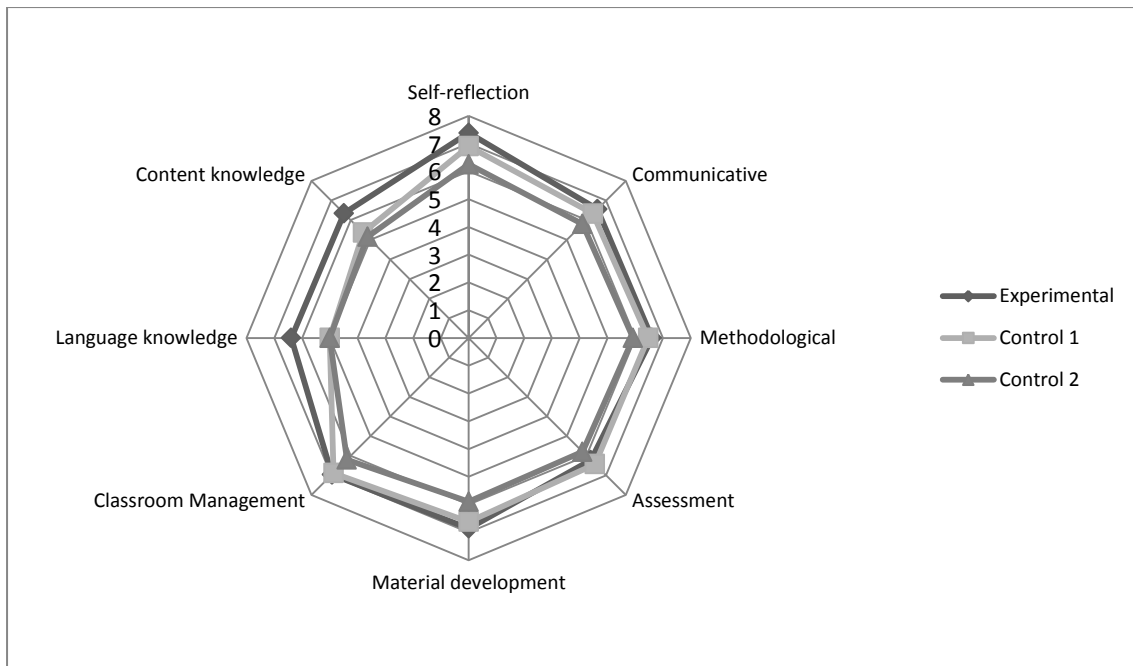


Figure 44. Students' perceptions regarding their competence and knowledge level (pre-test, course 1).

In short, the results from course 1 pre-test revealed that teacher students had different perceptions not only in terms of competence level, but also between the items measuring the same competence. Pre-test results pointed that first year teacher students perceived that their competence level was divers. These perceptions could be based on previous formal and non-formal learning experiences. However, pre-service teachers' perceptions could also be affected by the misunderstanding of the items or not knowing what the indicators actually represented. Additionally, it could be that students' perceptions were affected by how they solved previous situations that involved these competences. All in all, this initial analysis showed the variance within each group, but it did not indicate between groups' differences. For this reason, the results of the three groups' results will be compared in the next subsection.

7.1.1.3. *Between-Groups Comparison: Pre-Test Course 1*

The aim of this pre-test was to analyse the starting point of the experimental and control groups so as to identify the effect that the competence-based approach had on students' competences development. To this end, the starting point of the experimental and control groups was compared through a One-Way ANOVA.

Before analysing a main effect of competence, it was explored whether a main effect of group existed. That is, whether students' perceptions were determined by the group they belonged to. The ANOVA results indicated that this effect existed ($F(2)=8.219$, $p<.001$, $\eta^2=.136$) and that it explained almost 14% of the variance of students' responses. Therefore, this was a moderate effect according to Tabachnick and Fidell (2007). The pairwise comparisons with the significance

values adjusted to the number of comparisons showed a significant difference between the experimental group and the control group 2 ($p < .001$). In general, the students in the experimental group perceived they were more competent than their counterparts in the control group 2 at the beginning of the course. Because of the existence of this effect, a One-Way ANOVA was run per each competence to further explore this effect.

As for **self-reflection competence**, the ANOVA revealed a main effect of group for each of the items that assessed this competence (Table 104). That is, the starting point of each group was different for this competence ($F(2,91)=9.181, p < .001, \eta^2=.7$) and this effect appeared to be large. The pairwise comparisons showed that the significant differences were between the experimental group and the control group 2 for items 1 ($p=.005$), 2 ($p=.001$) and 3 ($p=.020$). The students in the experimental group perceived they had their self-reflection competence more developed than their peers in the control group 2. However, no significant differences were identified between the experimental group and the control group 1.

Table 104. ANOVA results for self-reflection competence between-subjects comparison (pre-test, course 1).

ITEM	ONE-WAY ANOVA	EFFECT SIZE (η^2)
To identify and reflect on my own beliefs relative to the teaching and learning process.	$F(2,107)=5,498, p=.005$	.81
To recognise and identify my own beliefs about content and language integrated learning.	$F(2,107)= 6,637, p=.002$	.78
To explore and reflect on my own teaching characteristics, potentialities and areas of improvement.	$F(2,107)=10,672, p=.015$	.85
Competence mean	$F(2,91)=9.181, p < .001$	.7

With regard to **communicative competence** (Table 105), the one-way ANOVA showed a main effect of group for some of the items analysed, as well as for the overall mean of this competence ($F(2,106)=4,055, p=.020, \eta^2=.85$). Additionally, the group the students' belong to explained the perceived level of communicative competence since the effect size was large. The pairwise comparisons indicated that the significant differences were between the experimental and the control group 2 for items 2 ($p=.008$), 3 ($p=.034$) and 5 ($p=.05$). Again, the students in the experimental group perceived that their competence level was higher than that one of the control group 2.

Table 105. ANOVA results for communicative competence between-subjects comparison (pre-test, course 1).

ITEM	ONE-WAY ANOVA	EFFECT SIZE (η^2)
To identify the characteristics of the language use in a specific field of knowledge.	F(2,107)=1,089, $p=.340$	.96
To identify the language aspects that are aimed to be developed in a given didactic unit.	F(2,107)=4,700, $p=.001$	.84
To plan how to work the language for a given topic.	F(2,107)=3,993, $p=.021$	.86
To identify different methodological approaches to work and acquire the language.	F(2,107)=1,720, $p=.184$	.87
To design learning proposals which include the basic principles of second language acquisition.	F(2,107)=3,217, $p=.044$	.89
Competence mean	F(2,106)=4,055, $p=.020$	.85

Table 106. ANOVA results for methodological competence between-subjects comparison (pre-test, course 1).

ITEM	ONE-WAY ANOVA	EFFECT SIZE (η^2)
To plan teaching and learning proposals that integrate content and language.	F(2,107)=2.602, $p=.079$	.91
To identify and align competences, learning outcomes, content and assessment criteria.	F(2,107)=3.315, $p=.04$	.88
To propose learning activities that enable students to achieve the competences, learning outcomes and contents.	F(2,107)=3.288, $p=.041$	.88
To sequence learning activities so that students become more autonomous during the unit.	F(2,107)=5.712, $p=.004$	.81
To choose the methodological approach according to the content characteristics, the learning outcomes and competences students have to achieve.	F(2,107)=.244, $p=.800$	.99
Competence mean	F(2,107)=.4.329, $p=.016$	.84

Regarding **methodological competence**, a main effect of group was also identified for all the items that assessed this competence (Table 106). The effect sizes indicated that the group the

students belonged to explained their perceived competence level at the beginning of the course. The pairwise comparisons showed that the significant differences were between the experimental and control group 2 for items 3 ($p=.042$) and 4 ($p=.004$). Additionally, it was almost significant the comparison between the control groups for item 2 ($p=.051$). Once more, the perceived competence level at the beginning of the course appeared to be higher for the experimental group than for the control group 2.

Regarding **assessment competence**, the ANOVA results seemed to indicate that there was no main effect of group. That is, students' perceptions of all three groups were similar for all assessed items (Table 107). For this reason, the results showed that, altogether, the starting point for this competence was similar for the three groups.

Table 107. ANOVA results for assessment competence between-subjects comparison (pre-test, course 1).

ITEM	ONE-WAY ANOVA	EFFECT SIZE (η^2)
To establish an assessment system that allows to identify and inform about the student's learning process.	F(2,106)=1.972, $p=.144$	.93
To determine what strategies and instruments will be used to assess the level of attainment of the learning outcomes.	F(2,107)=1.641, $p=.199$	.94
To propose an assessment system that allows to identify content level of attainment without being limited by language knowledge.	F(2,107)=1.522, $p=.223$	.94
To establish a mechanism to evaluate the teaching practice.	F(2,107)=1.422, $p=.246$	.95
Competence mean	F(2,106)= 2.191, $p=.117$	.91

For **material development competence**, a main effect of group was identified for all items except one (Table 108). The large effect sizes indicated that the group the students belonged to explained their starting point for this competence. The pairwise comparisons with the significant values adjusted to the number of comparisons showed that the significant differences were found between group 2 and the experimental and control group 1 for items 1 ($p=.003$; $p=.025$, respectively) and 3 ($p<.001$; $p=.015$, respectively). A significant difference was also found between control group 2 and the experimental group for item 4 ($p=.004$). In all cases, the participants in control group 2 perceived that their competence level was significantly lower.

Additionally, there was a main effect of group for the overall mean of material development competence. The significant differences were between control group 2 and the experimental group ($p=.001$) and control group 1 ($p=.033$).

Table 108. ANOVA results for material development competence between-subjects comparison (pre-test, course 1).

ITEM	ONE-WAY ANOVA	EFFECT SIZE (η^2)
To establish criteria to search and select teaching and learning materials and resources.	$F(2,106)=6.480, p=.002$	.78
To assess the selected materials in terms of the degree they allow to work both the content and language, as well as to assess the learning outcomes and competences.	$F(2,107)=.294, p=.746$	.99
To sequence learning activities to work the contents progressively.	$F(2,107)=9.879, p<.001$	.69
To anticipate the areas where it will be necessary to look for supplementary material to reinforce or expand a given content.	$F(2,107)=5.642, p=.005$	.81
Competence mean	$F(2,106)= 7.306, p=.001$	.96

A main effect of group was found for **classroom management competence** ($F(2,106)= 4.453, p=.014$) (Table 109). The pairwise comparisons indicated that the significant differences were between the experimental and control group 2 ($p=.017$). More specifically, significant differences were identified between these two groups for item 1 ($p=.014$) and almost a significant difference for item 4 ($p=.051$). Again, pre-service teachers in control group 2 perceived that their competence level at the beginning of course 1 was significantly lower than the one of the experimental group.

Table 109. ANOVA results for classroom management competence between-subjects comparison (pre-test, course 1).

ITEM	ONE-WAY ANOVA	EFFECT SIZE (η^2)
To identify different strategies to manage the social dynamics in the classroom.	$F(2,107)=4.224, p=.017$	.85
To select different strategies to manage classroom diversity.	$F(2,107)=1.446, p=.240$	.94
To identify strategies to encourage students' participation.	$F(2,106)=1.943, p=.148$	.93
To use different strategies to manage time and space.	$F(2,107)=3.010, p=.053$	.89
Competence mean	$F(2,106)= 4.453, p=.014$	.84

Finally, as for students' perception in terms of **language and content knowledge** (Table 110), there was a main effect of group for both language ($F(2,106)=8.336, p<.001, \eta^2=.72$) and content knowledge ($F(2,106)=9.548, p<.001, \eta^2=.69$). In terms of language knowledge, the pairwise comparisons showed that there was a significant difference between the experimental group and the control groups 1 ($p=.003$) and 2 ($p=.002$). More specifically, there were significant differences between the experimental and the control groups 1 and 2 for the items 1 ($p=.013$; $p=.018$, respectively) and 2 ($p=.011$; $p<.001$, respectively), as well as between the experimental and control group 2 for item 3 ($p=.035$). For all the comparisons, students in the experimental group perceived that their knowledge of the additional language was higher than the other two groups. Regarding content knowledge, the significant differences were also between the experimental group and the control groups 1 ($p=.006$) and 2 ($p<.001$). Concretely, a significant difference existed between the experimental and control group 2 for item 4 ($p=.006$) and almost significant for item 5 ($p=.053$). Again, the participants from the experimental group perceived that their content knowledge was higher than the participants in the control group 2.

Table 110. ANOVA results for language and content knowledge between subjects comparison pre-test, course 1).

ITEM	ONE-WAY ANOVA	EFFECT SIZE (η^2)
To identify the main ideas of a text (written and oral) about educational issues in an additional language.	$F(2,105)=5.697, p=.004$	.8
To produce texts (oral and written) about topics related to education in an additional language.	$F(2,104)=9.584, p<.001$	.69
To manage the classroom and give information in an additional language.	$F(2,107)=3.705, p=.028$	.87
Language knowledge mean	$F(2,106)=8.336, p<.001$	.72
To identify the characteristics of a field of knowledge and consider this characteristics in the planning.	$F(2,105)=5.051, p=.008$	.82
To design a didactic unit that integrates content and language that is grounded on theory.	$F(2,106)=2.9, p=.059$	.89
Content knowledge mean	$F(2,106)=9.548, p<.001$	.69

Overall, the analysis of pre-service teachers' competence level indicated that the starting point of each group was different. Consequently, belonging to one group or another seemed to partially explain students' perceived competence level. These differences could be the result of the selection process teacher students went through to access the degree. However, the

selection process only partially explains these differences because the control groups went through the same process and yet only students in control group 2 appeared to have a lower competence development in comparison to the experimental group. Therefore, the existing differences between the groups could also be explained by the different teachers each group had and the learning experiences they were involved in. Another possibility is that their teaching experience could have determined their perceived level of competence.

7.1.2. Post- test Results for Planning, Design and Assessment of the teaching and learning activity course.

The self-perceived competence level questionnaire was administered to the three groups at the end of May of the academic year 2016-2017 through Google forms. Table 111 shows the percentage of filled questionnaires that were obtained for the pre- and post-test, as well as the percentage of students that answered both questionnaires. Some of the questionnaires could not be identified because participants used a different nickname or identification number.

Table 111. *Percentage of filled questionnaires in each stage for course 1.*

GROUP	% Pre-test Questionnaires	% Post-test Questionnaires	% PRE & POST	% No identified
Experimental	95,24%	97,62%	92,86%	0%
Control 1	63,83%	46,8%	42,55%	10,64%
Control 2	80,85%	61,7%	38,3%	21,27%

7.1.2.1. Consistency and Normality of Distribution

Following the same procedure as with the pre-test, the first step in the data analysis was to check the questionnaire's consistency; that is, if the questionnaire measured what it was aimed to measure (Corral, 2009). The questionnaire's consistency was analysed through Cronbach's Alpha. As set out in table 112, the results showed that the answers were consistent since the alpha's value was $\alpha=.93$ or higher for all groups. However, this high value could also indicate that there were some items that measured the same (Cortina, 1993).

Once ensured the results' consistency, the normality of distribution was analysed. The tests *Kolmogorov-Smirnov* and *Shapiro Wilk* were used to assess normality of distribution. The analysis of the results indicated that the data obtained for all the competences were usually normally distributed. However, in the case of language knowledge, the values of the control group 1 had to be adjusted because, in some cases, the data was not normally distributed. Once these adjustments were made, the data got normalised.

Table 112. Cronbach's Alpha Results (post-test, course 1).

Group	Cronbach's Alpha	Cronbach's Alpha based on the standardised items	Number of items
Experimental	.928	.936	30
Control 1	.949	.955	30
Control 2	.922	.931	30

7.1.2.2. Within-Groups Comparison: Post-Test Course 1

The items that measured the same competence were correlated in order to analyse whether students' perceptions were consistent. Additionally, it was explored whether pre-service teachers' perceptions were homogenous through a one-way ANOVA.

As for **self-reflection competence** (Table 113), it appeared that the experimental and control group 2 opinions were not consistent since the correlations were weak and only significant for items 1 and 3 ($r=.478$, $p=.002$ experimental group; $r=.659$, $p<.001$ control group 2). Regarding control group 1, all correlations were moderate to strong ($.477$, $p=.025 < r < .566$, $p=.006$). An ANOVA was run in order to explore a possible main effect of item. The results indicated that there was a main effect of item for the experimental group ($F(1,40)=3130,69$, $p<.001$, $\eta^2=.98$), control group 1 ($F(1,21)=1854,07$, $p<.001$, $\eta^2=.98$) and control group 2 ($F(1,28)=2883,152$, $p<.001$, $\eta^2=.99$). However, the pairwise comparisons with the significance values adjusted to the number of comparisons did not reach significance.

Table 113. Means and standard deviations for self-reflection competence (post-test, course 1).

ITEM	EXPERIMENTAL		CONTROL 1		CONTROL 2	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
To identify and reflect on my own beliefs relative to the teaching and learning process.	7.78	1.64	7.68	1.04	7.62	.98
To recognise and identify my own beliefs about content and language integrated learning.	7.73	.95	7.41	.959	7.48	.87
To explore and reflect on my own teaching characteristics, potentialities and areas of improvement.	8.02	.94	7.64	1	7.55	1.06
Competence mean	7.85	.9	7.57	.82	7.55	.76

Regarding **communicative competence** (Table 114), the experimental group's perceptions were consistent since correlations tended to be moderate and significant ($.337$, $p=.031 < r < .430$, $p=.005$). As for control groups, correlations tended to be from moderate to strong for control group 1 ($r=.428$, $p=.047 < r < r=.841$, $p<.001$) and 2 ($r=.428$, $p=.047 < r < r=.841$, $p<.001$). A main

effect of item was explored for each group through an ANOVA. The results suggested that students in the experimental group ($F(1,40)=3962.764$, $p<.001$, $\eta^2=.99$), control group 1 ($F(1,21)=1640.981$, $p<.001$, $\eta^2=.98$) and control group 2 ($F(1,28)=1979.482$, $p<.001$, $\eta^2=.98$) perceived that their competence level was different depending on the dimension analysed. However, the pairwise comparisons with the p values adjusted to the number of comparisons did not reveal any significant difference.

Table 114. Means and Standard Deviations for communicative competence (post-test, course 1).

ÍTEM	EXPERIMENTAL		CONTROL 1		CONTROL 2	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
To identify the characteristics of the language use in a specific field of knowledge.	7.29	1.2	7.05	1.09	7.17	1.23
To identify the language aspects that are aimed to be developed in a given didactic unit.	7.41	1	7.41	1.14	7.10	1.11
To plan how to work the language for a given topic.	7.39	1.07	7.5	1.10	7.34	.974
To identify different methodological approaches to work and acquire the language.	7.49	1.165	7.5	.913	7.41	.946
To design learning proposals that include the basic principles of second language acquisition.	7.59	1.072	7.41	.959	7.07	1.13
Competence Mean	7.43	.76	7.37	.85	7.22	.87

As for **methodological competence** (Table 115), the items that measured this competence were correlated. The *Pearson's r test* showed that students' perceptions were not consistent since their perceptions per each item tended not to correlate and if they did correlate, the correlations were weak. It was explored a main effect of item through a one-way ANOVA. The results revealed that there were significant differences in terms of how teacher students perceived their competence level for each of the dimension analysed. These differences were significant for the experimental group ($F(1,40)=5127.472$, $p<.001$, $\eta^2=.99$), the control group 1 ($F(1,21)= 1968.494$, $p<.001$, $\eta^2=.99$) and the control group 2 ($F(1,28)=3161.442$, $p<.001$, $\eta^2=.99$). Nevertheless, the pairwise comparisons did not show any significant differences between the items.

Table 115. Means and Standard Deviations for methodological competence (post-test, course 1).

ÍTEM	EXPERIMENTAL		CONTROL 1		CONTROL 2	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
To plan teaching and learning proposals that integrate content and language.	7.61	.95	7.45	.91	7.38	.94
To identify and align competences, learning outcomes, content and assessment criteria.	7.8	1	7.14	.94	7.48	.99
To propose learning activities that allow students to achieve the competences, learning outcomes and contents.	7.9	1.07	7.41	1.05	7.41	.91
To sequence learning activities so that students become more autonomous during the unit.	7.93	.99	7.45	1.1	7.34	.9
To choose the methodological approach according to the content characteristics, the learning outcomes and competences students have to achieve.	7.54	1	7.09	1.1	7.34	.97
Competence mean	7.76	.69	7.3	.77	7.39	.71

The results of the correlations suggested that students' answers were consistent for the different items analysing **assessment competence** (Table 116). Correlation were weak to moderate for the experimental group ($r=.314, p=.046 < r < r=.598, p<.001$), moderate to strong for the control group 1 ($r=.539, p=.01 < r < r=.758, p<.001$) and moderate for the control group 2 ($r=.512, p=.005 < r < r=.682, p<.001$). A main effect of item was found for the experimental group ($F(1,38)= 3453.418, p<.001, \eta^2=.99$) and control groups 1 ($F(1,21)= 1590.731, p<.001, \eta^2=.98$) and 2 ($F(1,27)= 1870.956, p<.001, \eta^2=.98$). Again, however, pairwise comparisons did not show any significant difference.

Materials development competence (Table 117) was the following competence analysed. *Pearson r* showed that students' perceptions were maintained for the different items because the correlations tended to be moderate to strong for the experimental group ($r=.352, p=.026 < r < r=.562, p<.001$) and control groups 1 ($r=.489, p=.021 < r < r=.566, p<.006$) and 2 ($r=.366, p=.05 < r < r=.555, p=.007$). An ANOVA was conducted to analyse a potential main effect of item. The test results suggested a main effect of item for the experimental group ($F(1,38)=3367.447, p<.001, \eta^2=.98$), control group 1 ($F(1,20)= 2093.522, p<.001, \eta^2=.99$) and control group 2

($F(1,28)= 6331.457, p<.001, \eta^2=.99$). However, when the significant values were adjusted to the number of comparisons, the pairwise comparisons were not significant.

Table 116. Means and Standard Deviations for assessment competence (post-test, course 1).

ITEM	EXPERIMENTAL		CONTROL 1		CONTROL 2	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
To establish an assessment system that allows to identify and inform about the student's learning process.	7.53	1.04	7.36	1.14	7.21	1.15
To determine what strategies and instruments will be used to assess the level of attainment of the learning outcomes.	7.63	1.02	7.41	1.1	7.11	1.03
To propose assessment systems which allow to identify content level of attainment without being limited by language knowledge.	7.33	1.19	7.45	.963	7.07	1.13
To establish a mechanism to evaluate the teaching practice.	7.51	1.23	7.41	.908	7.07	1.03
Competence mean	7.51	.79	7.41	.87	7.12	.88

Table 117. Means and Standard Deviations for material development competence (post-test, course 1).

ITEM	EXPERIMENTAL		CONTROL 1		CONTROL 2	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
To establish criteria to search and select teaching and learning materials and resources.	7.71	1.03	7.55	.91	7.31	.97
To assess the selected materials in terms of the degree they allow to work both the content and language, as well as to assess the learning outcomes and competences.	7.58	.9	7.45	.91	7.31	1
To sequence learning activities to work the contents progressively.	7.8	1.09	7.55	1.01	7.28	.96
To anticipate the areas where it will be necessary to look for supplementary material to reinforce or expand a given content.	7.44	1.1	7.55	1.06	7.66	1.08
Competence mean	7.63	.81	7.52	.77	7.38	.73

With regard to **classroom management competence** (Table 118), the correlations were moderate to strong for the experimental group ($r=.355, p=.023 < r < r=.522, p< .001$), control

group 1 ($r=.441, p=.04 < r < r=.652, p=.001$) and 2 ($r=.396, p=.034 < r < r=.600, p=.001$). A possible main effect of item was analysed through a one-way ANOVA. The test results revealed that this effect existed for the experimental group ($F(1,40)=3343.646, p<.001, \eta^2=.98$), control group 1 ($F(1,21)= 2055.53, p<.001, \eta^2=.99$) and control group 2 ($F(1,28)= 2723.327, p<.001, \eta^2=.99$). The pairwise comparisons indicated a significant difference between the items 1 and 3 for the experimental group ($p=.029$). Regarding control group 1, there was a significant difference between item 3 and items 1 ($p=.049$), 2 ($p=.028$) and 4 ($p=.003$). The significant differences were between item 3 and items 1 ($p=.017$) and 4 (.005) for control group 2.

Table 118. Mean and Standard Deviations for classroom management competence (post-test, course 1).

ITEM	EXPERIMENTAL		CONTROL 1		CONTROL 2	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
To identify different strategies to manage the social dynamics in the classroom.	7.44	1.16	7.82	1.05	7.41	1.02
To select different strategies to manage classroom diversity.	7.54	1	7.59	1.3	7.52	1.02
To identify strategies to encourage students' participation.	7.95	1.07	8.32	.9	7.97	1.02
To use different strategies to manage time and space.	7.63	1.14	7.64	.727	7.14	.953
Competence mean	7.64	.85	7.84	.81	7.5	.77

Finally, **language and content knowledge** requisites were also analysed (Table 119). The different items that explored these requisites were correlated. The results of *Pearson's r* showed that there was a significant and strong correlation for the items measuring language knowledge for the experimental ($r=.615, p<.001 < r < r=.713, p<.001$), control group 1 ($r=.575, p=.008 < r < r=.642, p=.002$) and 2 ($r=.604, p=.001 < r < r=.817, p<.001$). As for content knowledge, the two items that measured this requirement strongly correlated for the three groups.

It was explored whether a main effect of item existed. The results indicated that there was a main effect of item for the experimental group ($F(1,40)= 2374.256, p<.001, \eta^2=.98$), control group 1 ($F(1,16)= 2234.939, p<.001, \eta^2=.99$) and control group 2 ($F(1,26)= 667.552, p<.001, \eta^2=.96$). The pairwise comparisons showed a significant difference between the item 3 and items 1 ($p<.001$) and 2 ($p<.001$) for the experimental group. This suggested that students in the experimental group perceived they were more competent at comprehending messages than producing them. With regard to control group 1, the significant differences were between content and language items. That is, the significant differences were between item 4 with items

2 ($p=.005$) and 3 ($p=.029$), as well as item 5 with items 2 ($p=.048$) and 3 ($p=0.45$). This indicates that these students perceived that their language knowledge was lower than their content knowledge. Finally, none of the pairwise comparisons for the control group 2 reached significance. Thus, it seemed that teacher students from control group 2 perceived having the same level of knowledge for language than for content.

Table 119. Means and Standard Deviations for language and content knowledge (post-test, course 1).

ITEM	EXPERIMENTAL		CONTROL 1		CONTROL 2	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
To identify the main ideas of a text (written and oral) about educational issues in an additional language.	7.9	1.4	6.77	1.27	6.52	1.96
To produce texts (oral and written) about topics related to education in an additional language.	7.63	1.62	6.1	1.26	6.37	1.86
To manage the classroom and give information in an additional language.	6.76	1.87	6.55	1.28	6.34	2.2
Language knowledge mean	7.43	1.46	6.44	1.16	6.39	1.87
To identify the characteristics of a field of knowledge and consider this characteristics in the planning.	7.49	1.14	7.64	1.14	7.14	1.03
To design a didactic unit that integrates content and language that is grounded on theory.	7.37	1.14	7.35	.93	7.28	.996
Content knowledge mean	7.42	.98	6.88	.71	6.73	1.32

Table 120. Means and Standard deviations for the competences and requisites assessed (post-test, course 1).

Competences and requisites	EXPERIMENTAL		CONTROL 1		CONTROL 2	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
Self-reflection competence	7.85	.9	7.57	.82	7.55	.76
Communicative competence	7.43	.76	7.37	.85	7.22	.87
Methodological competence	7.76	.69	7.3	.77	7.39	.71
Assessment competence	7.51	.79	7.41	.87	7.12	.88
Materials development competence	7.63	.81	7.52	.77	7.38	.73
Classroom management competence	7.64	.85	7.84	.81	7.5	.77
Language knowledge	7.43	1.46	6.44	1.16	6.39	1.87
Content knowledge	7.42	.98	6.88	.71	6.73	1.32

Following the same procedure as the one done for the pre-test results, it was analysed a main effect of competence through an ANOVA (Table 120). The results showed that this effect existed

for the experimental group ($F(40)= 5,380,54$, $p<.001$, $\eta^2=.99$), control group 1 ($F(21)= 2796,2$, $p<.001$, $\eta^2=.99$) and 2 ($F(28)=3166,01$, $p<.001$, $\eta^2=.99$). Thus, these results indicated that students did not consider that they had developed all these competences to the same extent.

The pairwise comparisons showed that the significant differences were between communicative and methodological competences ($p=.017$) for the **experimental group**. Pre-service teachers from the experimental group believed they had significantly less developed the communicative competence than the methodological one. No significant differences were found for the rest of the competences. Therefore, it seems that the experimental group considered that they had developed most of the competences to the same extent (Figure 45).

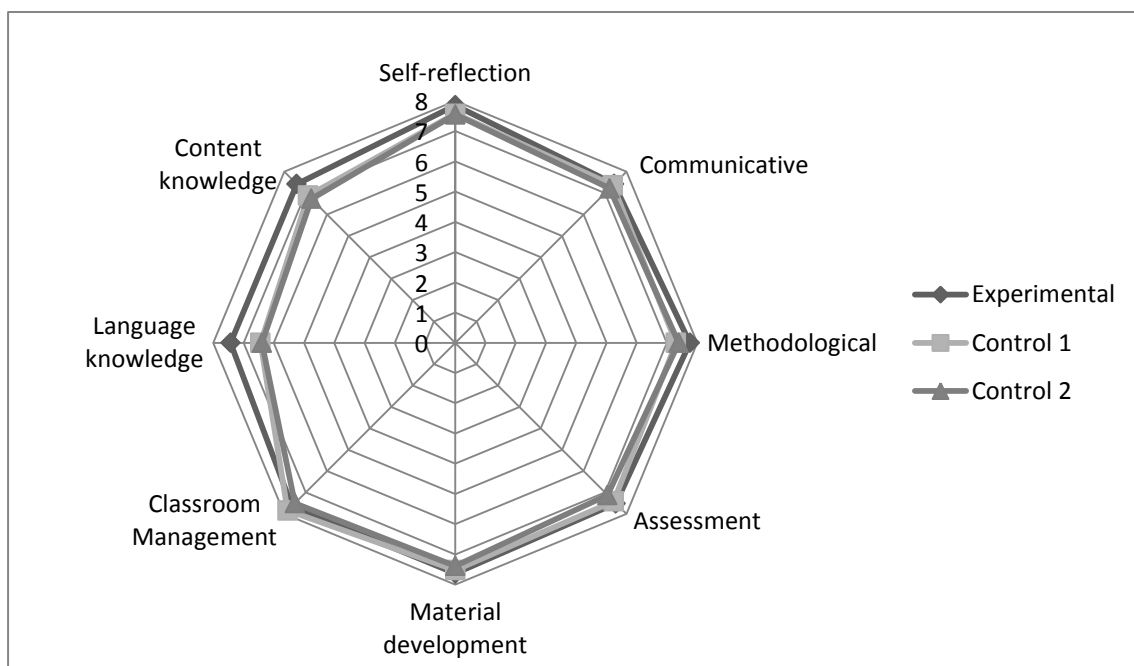


Figure 45. Students' perceptions regarding their competence and knowledge level (post-test, course 1).

As for **control group 1**, the pairwise comparisons revealed that there were significant differences between the competences and requisites. It was found a significant difference between methodological and classroom management competences ($p=.001$). Thus, apparently, students perceived that their methodological competence was significantly less developed than classroom management. On the other hand, the pairwise comparisons suggested that student teachers in the control group 1 perceived that their content and language knowledge was significantly lower than their self-reflection competence ($p=.004$ and $p=.005$, respectively), materials development ($p=.010$ and $p=.022$, respectively) and classroom management ($p=.001$ and $p=.003$, respectively) competences. These results were a bit surprising since it is rare that students perceive that their level is higher for the competences than for the content knowledge. Lastly, the pairwise comparisons for the **control group 2** did not show any significant difference

therefore, pre-service teachers in this group seemed to have the same level for all competences and requisites.

In short, in the same line as in the pre-test, teacher students participating in this study did not perceive they had all competences and requisites developed to the same level. However, considering that the correlations were stronger in the post-test than in the pre-test, as well as significant differences were not always found between the items assessing a competence, it seems that the participation in a learning experience had a positive effect on students' competence development. These results could also indicate that students became more aware of their competence level.

Nevertheless, an effect of competence was found for all three groups. Therefore, in spite of a homogenisation of students' competence level, the truth is that students did not perceive they had developed all competences to the same extent yet. Interestingly, each group identified different competences as the more or less developed. These different perceptions could be explained by the different starting points of each group. Another possible explanation could be the diversity of learning experiences students went through within the same course (teacher, language of instruction, activities...) and in other learning environments. Finally, students' understanding of what a competence is and what each competence implies could have affected the results.

This analysis only provided information on students' perception within each group. However, the purpose of this study was to analyse the impact of competence-based approach on competence development. For this reason, in the next sections, the results from the three groups are compared.

7.1.2.3. Between-Groups Comparison: Post-Test for Course 1

A between-group comparison was carried out in order to explore whether the piloted design with the double degree students had a positive effect on their competence development. The analysis was done through the statistical test ANOVA. First, a potential effect of competence*group was explored. The ANOVA showed that this effect existed ($F(2)=12.963$, $p=.030$, $\eta^2=.076$) but it was little since it only explained almost 8% of the variance between groups. Thus, the perceived level of competence development could hardly be attributed to the group the students belong to. The pairwise comparisons revealed that the significant difference was between the experimental group and the control group 2 ($p=.032$). It was decided to further explore the differences between groups for each competence. In general, the students from the experimental group perceived to be more competent.

With regard to **self-reflection competence**, the ANOVA revealed that there was no main effect of group for any of the items assessed (Table 121). Therefore, the results seemed to suggest that all three groups reached a similar level of self-reflection competence by the end of the first course. Consequently, it appears that it was the participation in a learning experience what had an impact on students' self-reflection competence rather than the piloted experience within the framework of this doctoral thesis.

Table 121. *One-Way ANOVA results for self-reflection competence (post-test, course 1).*

ITEM	ONE-WAY ANOVA	EFFECT SIZE (η^2)
To identify and reflect on my own beliefs relative to the teaching and learning process.	(F(2,91)= .128, p =.880)	η^2 =.99
To recognise and identify my own beliefs about content and language integrated learning.	(F(2, 91)= 1.080, p =.344)	η^2 =.95
To explore and reflect on my own teaching characteristics, potentialities and areas of improvement.	(F(2,91)= 2.251, p =.111)	η^2 =.9
Competence mean	(F(2,91)= 1.304, p =.227)	η^2 =.94

Regarding **communicative competence**, the ANOVA's results showed that there was no main effect of group for either the items or the overall mean (Table 122). Therefore, it appears that the experience piloted in this course did not have a significant effect on the development of this competence in comparison to the control groups.

Table 122. *One-Way ANOVA results for communicative competence (post-test, course 1).*

ITEM	ONE-WAY ANOVA	EFFECT SIZE (η^2)
To identify the characteristics of language use in a specific field of knowledge.	F(2,91)=.318, p =.728	.98
To identify the language aspects that are aimed to be developed in a given didactic unit.	F(2,91)=.829, p =.440	.96
To plan how to work the language for a given topic.	F(2,91)=.142, p =.868	.99
To identify different methodological approaches to work and acquire the language.	F(2,91)=.057, p =.945	.99
To design learning proposals which include the basic principles of second language learning.	F(2,91)=2.004, p =.141	.91
Competence Mean	F(2,91)= .587, p =.558	.97

As for **methodological competence**, a main effect of group was identified for items 2 and 3 (Table 123). Apparently, the group where participants were enrolled in explained students' perceived level of methodological competence since the effect sizes were large. The pairwise

comparisons revealed a significant difference between the experimental and control group 1 for item 2 ($p=.032$) and between the experimental group and the control group 2 for item 4 ($p=.045$). These results indicated that there was no main effect of group for three of the items analysed, but, apparently, the experimental group was the one that perceived having a higher level of competence for the other two items. Additionally, a main effect of group was found for the overall mean of methodological competence ($F(2,91)=1.855$, $p=.031$, $\eta^2=.85$). The pairwise comparisons with the adjusted p values to the number of comparisons showed that there was an almost significant difference between the experimental group and the control group 1 ($p=.053$). This result seems to indicate that the piloted experience could have had a positive effect on methodological competence.

Table 123. One-Way ANOVA results for methodological competence (post-test, course 1).

ITEM	ONE-WAY ANOVA	EFFECT SIZE (η^2)
To plan teaching and learning proposals which integrate content and language.	$F(2,91)=.548$, $p=.58$	.97
To identify and align competences, learning outcomes, content and assessment criteria.	$F(2,91)=3.381$, $p=.038$	.81
To propose learning activities that enable students to achieve the competences, learning outcomes and contents.	$F(2,91)=2.648$, $p=.076$	.88
To sequence learning activities so that students become more autonomous during the unit.	$F(2,91)=3.409$, $p=.037$	.85
To choose the methodological approach according to the content characteristics, the learning outcomes and competences students have to achieve.	$F(2,91)=1.380$, $p=.257$	.93
Competence mean	$F(2,91)=1.855$, $p=.031$	.85

No main effect of group was identified for **assessment competence**. As Table 124 shows, no effect of group was found for either the items assessing this competence or the overall mean. Therefore, it seems that the differences in terms of competence level could not be explained by the group the students belonged to.

It was explored whether a main effect of group existed for **material development competence** (Table 125). To this end, a one-way ANOVA was conducted. The results showed no effect of group because none of the conducted ANOVAs reached significance. Therefore, the results suggested that the group the students belonged to did not explain pre-service teachers' perceptions for material development competence.

Table 124. *One-Way ANOVA results for assessment competence (post-test, course 1).*

ITEM	ONE-WAY ANOVA	EFFECT SIZE (η^2)
To establish an assessment system that enables to identify and inform about student's learning process.	F(2,90)= .713, p=.493	.96
To determine what strategies and instruments will be used to assess the level of attainment of the learning outcomes.	F(2,90)= 2.130, p=.125	.9
To propose assessment systems which allow to identify content level of attainment without being limited by language knowledge.	F(2, 90)= .862, p=.426	.96
To establish a mechanism to evaluate the teaching practice.	F(2, 91)= 1.427, p=.245	.93
Competence mean	F(2, 91)= 1.286, p=.167	.92

Table 125. *One-way ANOVA results for material development competence (post-test, course 1).*

ITEM	ONE-WAY ANOVA	EFFECT SIZE (η^2)
To establish criteria to search and select teaching and learning materials and resources.	F(2,91)= 1.383, p=.256	.94
To assess the materials selects in terms of the degree they allow to work both the content and language, as well as to assess the learning outcomes and competences.	F(2,90)=.670, p=.514	.97
To sequence learning activities to work the contents progressively.	F(2,90)=2.179, p=.119	.9
To anticipate the areas where it will be necessary to look for supplementary material to reinforce or expand a given content.	F(2,91)= .341, p=.712	.98
Competence mean	F(2,91)= 1.286, p=.167	.92

As for **classroom management competence**, no significant differences were found for either the items assessing this competence or the overall mean of this competence (Table 126). Again, the differences could not be attributed to the group the students belonged to because all groups perceived having reached a similar competence level.

Table 126. One-way ANOVA results for classroom management competence (post-test, course 1).

ITEM	ONE-WAY ANOVA	EFFECT SIZE (η^2)
To identify different strategies to manage the social dynamics in the classroom.	F(2,91)= 1.067, p =.348	.95
To select different strategies to manage classroom diversity.	F(2, 91)=.030, p =.970	.99
To identify strategies to encourage students' participation.	F(2,91)= 1.061, p =.350	.95
To use different strategies to manage time and space.	F(2,91)= 2.479, p =.09	.89
Competence mean	F(2,91)= 1.040, p =.358	.95

Finally, as for **language and content knowledge**, there was a main effect of group for items 1 and 2 (Table 127). The pairwise comparisons showed that there was a significant difference for item 1 between the experimental and control groups 1 (p =.021) and 2 (p =.001). In terms of item 2, the difference was again between the experimental group and control groups 1 (p =.002) and 2 (p =.007). Therefore, it seems that students in the experimental group perceived that they had greater language proficiency than students in the control group. The effect of group was large since 60% to 70% of students' variance could be explained by the group the students belonged to. Regarding content knowledge, a main effect of group was identified ($F(2,91)=4.256$, p =.017, η^2 =.82). The pairwise comparisons showed that there was a significant difference between the experimental group and control group 2 (p =.022) suggesting that the variances in terms of content knowledge could be explained by the group students' belonged to. This effect was large since it explained more than 80% of the variance.

Table 127. One-way ANOVA results for language and content knowledge (post-test, course 1).

ITEM	ONE-WAY ANOVA	EFFECT SIZE (η^2)
To identify the main ideas of a text about educational issues in an additional language.	F(2,91)= 7.683, p =.001	.70
To produce texts about topics related to education in an additional language.	F(2,88)= 8.172, p =.001	.60
To manage the classroom and give information in an additional language.	F(2,89)= .410, p =.665	.98
Language knowledge mean	F(2,91)= 5.007, p =.009	.79
To identify the characteristics of a field of knowledge and consider this characteristics in the planning.	F(2,91)= 1.440, p =.242	.93
To design a didactic unit that integrates content and language that is grounded on theory.	F(2,89)=.066, p =.936	.99
Content knowledge mean	F(2,91)=4.256, p =.017	.82

In short, the above analysis revealed that students' differences could hardly ever be explained by the group the students' belonged to except for methodological competence, language and content knowledge. Consequently, it appears that the large differences that existed between the experimental group and control group 2 at the beginning of the course had disappeared. When an effect of group existed, it always pointed towards a higher perceived competence level of students in the experimental group. Therefore, apparently, the experience piloted with this group could have had a positive effect. However, it was expected that the design implemented would have had a major effect on the development of experimental group's competences. A possible explanation for the results obtained is that all three groups followed the same teaching plan and, therefore, lecturers worked towards the development of these competences.

7.1.3. Comparison of the pre- and post-test results for Planning, Design and Assessment of Teaching and Learning Activity

This section aims to analyse whether there was a significant change in teacher students' perceived competence level at the beginning of the course (pre-test) and at the end (post-test). To this end, first, several t-test were run so as to explore significant differences between the means reported at the beginning and the end of the semester. Secondly, it was intended to explore through and ANCOVA a possible main effect of variance controlling for the pre-test results.

The perceived competence and knowledge level was calculated before and after the experience (Table 128). In order to explore whether the learning experience offered in the course *Planning, Design and Assessment of Teaching and Learning Activity* had a positive impact on students' perceived competence level, several paired-samples t-test were run per each group (Table 129).

Table 128. Pre- and post-test means for each of the competences and requisites (course 1).

Competences and Requisites	Experimental		Control 1		Control 2	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
Self-reflection competence	7.38	7.85	6.91	7.58	6.25	7.55
Communicative competence	6.57	7.43	6.33	7.37	5.81	7.22
Methodological competence	6.61	7.76	6.48	7.31	5.92	7.39
Assessment competence	6.22	7.51	6.44	7.41	5.82	7.12
Materials development competence	6.86	7.63	6.63	7.52	5.94	7.39
Classroom management Competence	6.96	7.64	6.88	7.84	6.20	7.51
Content knowledge	6.36	7.43	5.38	6.88	5.15	6.73
Language knowledge	6.39	7.43	5.01	6.44	5.01	6.39

Table 129. *T-Test results of the comparison between the pre- and post-test (course 1).*

Competences & Requisites	Experimental	Control 1	Control 2
Self-Reflection	t(38)=2.390, $p=.022$	t(11)= 2.301, $p=.067$	t(17)=3.931, $p=.001$
Communicative	t(38)= 4.069, $p<.001$	t(11)=3562, $p=.004$	t(17)=4.223, $p=.001$
Methodological	t(38)=6.661, $p<.001$	t(11)=4.513, $p=.001$	t(17)=4.978, $p<.001$
Assessment	t(38)= 5.614, $p<.001$	t(11)=5.280, $p<.001$	t(17)= 5.149, $p<.001$
Material Development	t(38) =3.906, $p<.001$	t(11)=3.154, $p=.009$	t(17)=4.707, $p<.001$
Classroom Management	t(38)=3.224, $p<.001$	t(11)=5.673, $p<.001$	t(17) =3.198, $p=.005$
Language knowledge	t(38)= 5.322, $p<.001$	t(11)= 6.442, $p<.001$	t(17)=4.985, $p<.001$
Content knowledge	t(38)=5.322, $p<.001$	t(11)= 4.803, $p<.001$	t(17)= 3.378, $p=.004$

The t-test results showed a significant difference between the pre- and post-test results for the three groups, except for control group 1 perceptions on self-reflection competence. These findings suggest that students considered they were more competent at the end of the course. Thus, apparently, the participation in a learning experience, regardless of the extent this experience used a competence-based approach, contributed to an improvement of competence development.

The results of the t-test indicated whether the perceived competence level of each group varied between the beginning and the end of the course. Nonetheless, these results did not explain how these perceptions varied in relation to the other two groups and their starting point. For this reason, it was thought that an analysis of covariance (ANCOVA) should be conducted (Table 130).

Table 130. *ANCOVA Results for each competence and requirement (course 1).*

Competence & Requisites	ANCOVA Results
Self-reflection competence	F(2,65)=.150, $p=.861$, $\eta^2=.005$
Communicative Competence	F(2,65)=.119, $p=.888$, $\eta^2=.004$
Methodological Competence	F(2,65)=2,295, $p=.109$, $\eta^2=.066$
Assessment Competence	F(2,65)=.256, $p=.775$, $\eta^2=.008$
Materials development Competence	F(2,65)=.202, $p=.818$, $\eta^2=.006$
Classroom Management Competence	F(2,65)=.370, $p=.692$, $\eta^2=.011$
Content knowledge	F(2,65)=1.255, $p=.292$, $\eta^2=.037$
Language Knowledge	F(2,65)=2.106, $p=.130$, $\eta^2=.61$

However, it was realised that 39 out of the 42 students in the experimental group had answered both the pre- and post-test, but only 12 students in the control group 1 and 18 in the control group 2 had filled both questionnaires. The limited number of students that had answered both

the pre- and post-tests had two major implications: first, there was not the minimum number of students required to run a parametric test, which is considered to be between 15 and 20 (Tabachnick & Fidell, 2007). Second, the ANCOVA was run comparing the mean of those students that had answered both questionnaires. Consequently, the mean of these respondents was quite different to the one that considered the whole group. For instance, language knowledge mean for the control group 1 post-test was 6.44, but when the 12 participants who answered both questionnaires were considered, the mean became 7.42. Consequently, it was decided not to consider ANCOVA's results because 12 students did not represent the whole group (46 students) and the results obtained would not be reliable.

An ANOVA that analysed the effect of time and group was run. The variable time was explored through the pre-and post-test results, whereas the variable group was explored through a categorical variable that grouped the participants in the three groups (experimental, control group 1 and control group 2). Table 131 shows the results of the factorial analysis.

Table 131. Results of the ANOVA analysing the effect of time * group (course 1).

Competences & Requisites	TIME * GROUP
Self-reflection competence	F(2)=2.703, p=.074, η^2 =.076
Communicative Competence	F(2)=1.305, p=.278, η^2 =.038
Methodological Competence	F(2)=.750, p=.476, η^2 =.022
Assessment Competence	F(2)=.036, p=.964, η^2 =.001
Materials development Competence	F(2)=2.267, p=.112, η^2 =.064
Classroom Management Competence	F(2)= 1.762, p=.180, η^2 =.051
Content knowledge	F (2)=3.618, p=.032, η^2 =.099
Language Knowledge	F(2)=3.821, p=.027, η^2 =.104

The results did not show any main effect of time*group for any of the competences analysed. Therefore, the findings seem to suggest that the competence development for the three groups was similar. Nevertheless, with regards to the requisites, the ANOVA showed a main effect of group*time, indicating that not all groups perceived they had acquired the same level of knowledge by the end of the course. It is worth noting that the effect size for content knowledge was small and, consequently, the group the students belonged to had a small effect on the perceived level of content knowledge. In the case of language knowledge, this effect was moderate. The pairwise comparisons revealed that the differences in terms of content knowledge perception were between the experimental group and control groups 1 (p =.016) and 2 (p =.010). As for language knowledge requisite, the significant differences were also between the experimental group and the control groups 1 (p =.006) and 2 (p =.017). Thus, it seems that

teacher students from the experimental group perceived they had higher language and content knowledge than their counterparts in the control groups.

The results obtained through the t-tests and the ANOVAs seem to indicate that the perceived competence level was linked to the participation in a learning context rather than to a specific learning experience. This could explain why all groups perceived that their competence level improved and there were no significant differences between the groups in terms of competence. However, it seems that teaching and learning through English and following CLIL principles favoured students' perception of their language knowledge, as well as it had a positive effect on content knowledge.

7.1.4. Comparison between students' perceptions and students' marks

Once students' perception had been analysed, it was explored whether their perceptions were adjusted to the marks obtained. However, this analysis was only done for the experimental group. The main reason was that it was the only group that used a competence-based approach and, therefore, the marks of the control groups did not necessarily certify the competence level achieved. Additionally, the assignments and criteria established for each group were different. Consequently, the same mark could be showing different realities. For all this, it was decided that the comparison between students' perceptions and students' marks would be only done for the experimental group. On the other hand, it is worth highlighting that some of the marks were not normally distributed and, after applying different procedures, they did not get normalised. For this reason, all the tests used to analyse students' marks and their relationship with students' perceptions were non-parametric.

The analysis focuses on three aspects: first, whether students' perceptions were correlated with the marks obtained. Second, if students' perceptions were aligned with their final mark of each assignment and course. Third, if the marks of the different assignments showed students' progress in terms of competence development.

7.1.4.1. Students' perceptions in relation to the marks obtained for each competence

As has been explained in the design of the proposal, each assessment criteria of the assignments referred to one of the competences that could be assessed through that task. The same competence could be assessed in different assignments. For instance, self-reflection competence was assessed in the book's analysis assignment and the portfolio. Therefore, there were at least two criteria that measured each competence. Two steps were done in order to explore whether students' perceptions were aligned to their marks. First, it was explored

whether the different marks associated to each competence correlated. After assuring that this correlation existed, a single mean was calculated for each competence in order to ease the analysis. Second, Wilcoxon Signed Rang tests were run in order to compare whether significant differences existed between students' perceptions and their marks.

Wilcoxon's test results showed that students' perceptions tended to be aligned to the marks they received for the same competence since most of the comparisons did not reach significance (Table 132). However, in the case of communicative and classroom management competences, students' perceptions appeared to be different to the marks they obtained. In the case of communicative competence, students' perceived to be significantly more competent (median=7.30) than the mark they got for this competence (median= 6.00). On the contrary, students' perceived they were significantly less competent for classroom management competence (median=7.00) than the overall mark they got (median=7.38).

In general, students' perceptions about their competence and knowledge level appeared to be aligned to the marks they got. This could be the result of the influence of the marks they obtained during the semester. Another explanation is that students became aware of their current level of competence and their learning process.

Table 132. Results of the Wilcoxon Signed Rank test (course 1).

Competences & Requisites	Wilcoxon Signed Rank test
Self-reflection competence	T=292,500, $p=.258$
Communicative competence	T=29,000, $p<.001$
Methodological competence	T=332,00, $p=.987$
Assessment competence	T=309,500, $p=.928$
Materials competence	T=345,000, $p=.850$
Classroom management competence	T=29,000, $p<.001$
Language knowledge	T=450,000, $p=.249$
Content knowledge	T=292,500, $p=.173$

7.1.4.2. Students' perceptions in relation to the final marks

A subsequent analysis aimed to explore whether students' perceived competence level was aligned to the final marks they obtained for each of the assignments and for the whole course. To this end, several Spearman r correlations were run. The items correlated were the competence mean obtained in the post-test and the final marks. Table 133 shows the results of these correlations.

Table 133. Results of the Spearman R correlations between students' perceptions and course marks (course 1).

Competences & Requisites	Assignment 1: Book analysis	Assignment 2: didactic unit	Assignment 3: portfolio	Final Mark
Self-reflection	$r=.253, p=.137$	$r=.286, p=.078$	$r=.328, p=.041$	$r=.325, p=.044$
Communicative	$r=-.120, p=.492$	$r=-.093, p=.577$	$r=.003, p=.988$	$r=.035, p=.834$
Methodological	$r=.152, p=.383$	$r=.031, p=.852$	$r=.211, p=.204$	$r=.227, p=.170$
Assessment	$r=-.260, p=.131$	$r=-.016, p=.924$	$r=.054, p=.745$	$r=.031, p=.854$
Materials	$r=-.299, p=.081$	$r=-.012, p=.941$	$r=.004, p=.979$	$r=-.035, p=.836$
Classroom management	$r=-.165, p=.337$	$r=-.174, p=.290$	$r=.003, p=.984$	$r=-.025, p=.878$
Language knowledge	$r=.325, p=.053$	$r=.295, p=.068$	$r=.397, p=.012$	$r=.457, p=.003$
Content knowledge	$r=.221, p=.196$	$r=-.051, p=.759$	$r=.422, p=.007$	$r=.484, p=.002$

The results of the correlations revealed that students' perceptions were not closely aligned to the marks they obtained in the different assignments and at the end of the course. Only weak to moderate significant correlations were found for self-reflection, language knowledge and content knowledge. Interestingly, these three domains tended to correlate basically with the portfolio and the final marks.

Although more correlations were expected, the reason why students' perceptions did not correlate with the marks they obtained could be explained by the fact that the final mark of each assignment was the average of the different assessment criteria, which measured different competences. Another possible explanation is that, despite receiving the mark for each criterion, students were not aware that each criterion was related to a competence and, consequently, they did not establish that relationship by themselves. Finally, it could be that students were not aware of how each assignment was contributing to the development of several competences, whereas it was clearer for them that they had to apply the course's content and do the assignment in an additional language.

7.1.4.3. Students' marks progress

The third step was to explore whether the marks of the different assignments showed students' competence development within *Planning, Design and Assessment of Teaching and Learning Activity* course. For this reason, several Related-Samples Friedman's and Wilcoxon tests were conducted (Table 134). Friedman's test was conducted when three or more marks for the same

competence were available, whereas Wilcoxon’s test was used when there were only two marks per each competence.

The results revealed that there were significant differences for the marks obtained in the criteria assessing **self-reflection competence** ($X^2(2)=17.647, p<.001$). The difference was between a criterion of the book task (median =7.50) and a criterion from the portfolio (median=8.00) ($p<.001$). Additionally, there was a significant difference between the two criteria that assessed self-reflection competence for the portfolio assignment ($p<.001$). These differences were large ($W=.238$), indicating that time explained almost 24% of the variance. Nevertheless, it appears that what was assessed could have affected students’ marks.

A main effect of time was also found for **methodological competence** ($X^2(3)=33,819, p<.001, W=.289$). This effect was also large since it appeared to explain 29% of the variance in students’ methodological competence marks. The pairwise comparisons revealed that the significant differences were between the book assignment (median= 7.00) and the global unit (median=8.25) ($p<.001$) and the global unit and the portfolio assignment (mean=7.75) ($p=.020$). In general, some progress is shown over time in terms of methodological competence, but it is also true that the mark could vary due to the characteristics of the assignment. That is, how students use their methodological competence to solve the tasks. In addition, the marks could vary depending on the teacher’s demands.

Communicative competence was assessed namely in the different stages of the didactic unit. For this reason, neither a Wilcoxon nor Friedman’s tests could be applied.

Table 134. Results of student’s marks comparison over time for course 1.

Competences & Requisites	Comparison of students’ marks over time
Self-reflection competence	$X^2(2)=17.647, p<.001, W=.238$
Methodological competence	$X^2(3)=33,819, p<.001, W=.289$
Assessment competence	$T=152,000, p=.036$
Materials competence	$X^2(2)=19,163, p<.001, W=.246$
Classroom management competence	$T=87,500, p<.001$
Language knowledge	$X^2(2)=10,842, p=.004, W=.147$
Content knowledge	$T=425,500, p=.009$

As for **Assessment competence**, the analysis of students’ marks was conducted through Wilcoxon test because there were only two criteria assessing this competence. The results indicated that there was a significant difference between the assessment marks obtained in the didactic unit (median= 7.75) and the portfolio (median =7.25) ($p=.036$). Even though the final version of both assignments were submitted with a difference of 10 days (first the didactic unit

and later the portfolio), the median indicates that the final mark for assessment was higher in the didactic unit task than in the portfolio. Therefore, this result did not show students' progress over time in terms of assessment. The differences could be attributed to the demands of the assignment: while students had to plan how students' learning would be assessed in the didactic unit, they had to reflect and evidence their assessment competence level in the portfolio. Students tended to have difficulties to reflect on their competence development and to provide evidences that proved this progress. Therefore, the significant differences in the marks could be due to the specific demands of each assignment.

A main effect of time was identified for **materials development competence** ($X^2(2)=19,163$, $p<.001$, $W=.246$). The pairwise comparisons showed that the significant differences were between the marks obtained for materials development competence in, on the one hand, the book's assignment (median =7.50) and the didactic unit (median= 8.25) ($p=.038$) and, on the other hand, the portfolio (median = 7.00) and the didactic unit (median= 8.25) ($p<.001$). If the results obtained for the book and the didactic unit tasks are considered, the results seem to indicate that there was an improvement over time. However, apparently, the type of task and its demands also affected students' performance since the marks were significantly lower in the portfolio than in the didactic unit.

Classroom management competence was assessed in the didactic unit and the portfolio tasks. Since there were only two criteria, the Related-Samples Wilcoxon test was used. The results indicated that there was a significant difference in the marks obtained for classroom management in these two assignments ($T=87,500$, $p<.001$). The differences were between the marks obtained for classroom management in the didactic unit (median=7.75) and the portfolio (median=7.00). Again, the findings seem to suggest that the difference was not due to the continuous experience in a competence-based approach, but due to type of assignment.

In terms of CLIL teachers' requisites, a main effect of time was found for **language knowledge** ($X^2(2)= 10,842$, $p=.004$, $W=.147$). This effect appeared to be moderate to large since it explained 15% of the variance in students' marks. The pairwise comparisons indicated a significant difference between language knowledge marks obtained for the book's analysis assignment (median=7.50) and the portfolio task (median=8.00) ($p=.006$). Therefore, the results seemed to indicate that students' language knowledge and use of language improved over time. Therefore, it could be that the experience of being taught through a foreign language had a positive effect on students' proficiency in the additional language. However, it would have been expected that

this difference had also been found between the book's analysis task and the didactic unit assignment.

As for **content knowledge**, there were two criteria assessing this requirement, therefore a related-samples Wilcoxon test was used. The results showed that there was a significant difference between the marks obtained for content knowledge in the book's analysis task (median=7,37) and the results of the didactic unit (median=8,00) ($T=425,500$, $p=.009$). Therefore, apparently, students improved their content knowledge over time due to their participation in a learning activity.

Finally, it was assessed whether there was a significant improvement of students' marks in each assignment. The Related-Samples Friedman's Test reveals that there was a main effect of time on students' marks ($X^2(3)=19,818$, $p<.001$, $W=.184$). That is, the continuous teaching and learning through an additional language and a competence-based approach appeared to have a positive effect on students' learning. This effect appeared to be moderate to large since time explained almost 20% of the variance on students' marks. However, the pairwise comparisons with the significance values adjusted to the number of comparisons, showed that the significant difference was between the Final mark of the didactic unit (median=8,00) and the portfolio task (median =7,00) ($p<.001$). Even though the marks were higher for the didactic unit, this difference was not due to time, but because of type of task. That is, both assignments were submitted at the end of the subject with a 10-days lapse. Therefore, there was not enough time to make a massive contribution on competences development. The differences were due to the type of assignment since students prove to be able to develop high-quality didactic units, which integrated content and language, but they had difficulties to reflect on their learning process and evidence they competence level, as the marks show.

Thus, in short, the findings seem to indicate that time had a positive impact for the development of some competences, such as self-reflection, methodological and materials development competences, as well as for language and content knowledge requisites. Nonetheless, the results also seem to indicate that some differences appear to be caused by the characteristics of each task. Apparently, students' were able to prove their level of competence when doing the activities, but they had difficulties to reflect on and evidence their level of competence and their learning process.

7.1.5. Results' Summary

The aim of this analysis was to explore whether teaching through English and a competence-based approach had a positive effect on the development of CLIL teachers' competences. For

this reason, teacher students' perceived level of competence was analysed at the beginning and at the end of course 1 to pilot this design. Pre-service teachers' perceptions in the experimental group were contrasted with the perceptions of two control groups in order to better comprehend the impact of this proposal.

In general, **the findings are inconclusive** and, thus, the results obtained cannot be directly attributed to the piloted design. First, participants had a different competence level perception for each of the competences analysed in both the pre- and post-tests. However, it seems that this perception was harmonised for the three groups during the experience. Possibly, participating in a learning process might help teacher students' to develop these competences, as well as being more aware of the dimensions each competence includes and where they are in terms of each of the dimensions.

With regard to an effect of group, pre-test results showed a significant main effect of group. In fact, **teacher students' in the experimental group perceived that their competence level was significantly higher than the one of the participants in the control group 2**. This main effect of group was also significant in the post-test results. However, this time the significant differences were only for **methodological competence and language and content knowledge**. The initial differences could be explained by the process followed by each group to access teacher education studies. These initial differences could also be explained by the previous learning and personal experiences that each group had. Although these differences were kept at the end of the course, it seems that they decreased during the semester. This fact can be explained namely by two reasons: the specific characteristics of each learning context and the different teachers in charge of the course. Additionally, during the development of this experience, teacher students were involved in other learning and personal situations that could not be controlled for and could have affected the results of this study.

According to the results obtained through this questionnaire, it seems that **language learning** was the only benefit that could be directly linked to this experience. This result was a consequence of a greater exposure to the additional language, as well as a more contextualised, communicative and practical language use. Even though the results did not suggest that the experimental group attained a higher competence level than the control groups, a positive finding was that they attained the same level of competence. However, this finding has to be analysed with caution because the profile of the students in the experimental group was different to those in the control group.

In order to explore whether students' perceptions were reliable, they were aligned with the results they got in the different course 1 assignments. Wilcoxon test results indicated that, in general, there were **no significant differences between students' perceptions and the marks obtained for each competence**. Therefore, students' self-perception on their competence level was adjusted to reality. However, students' self-perceived competence level did not correlate with the final marks they got. Although it is true that not all competences were present in all assignments, it was expected that students' perceived competence level would be partially aligned to the marks they obtained. Only moderate significant correlations were found for self-reflection, content and language knowledge. It is interesting that the perceived level of knowledge was correlated to the final marks, but not the competences. A possible explanation is that the final mark of each assignment was the mean of each assessment criterion, which assessed different competences. Another explanation is that students considered that what was assessed was their knowledge instead of the competences. It could also be that students' level of language knowledge affected the execution of the tasks.

The results of the Wilcoxon and Friedman's tests seemed to indicate that there was a positive effect of time for self-reflection, methodological and material development competences, as well as for language and content knowledge. That is, there was an improvement on students' marks in these domains during course 1. No clear improvements could be identified for assessment and classroom management competences. The reasons could be either that these competences were less worked in this course or that the type of assignment influenced the marks students' obtained.

Overall, the analysis of students' self-perceived competence level questionnaire and the analysis of the marks seem to indicate that the experience was positive, even though no huge benefits in comparison to the control group were found. It could be that an isolated experience of short duration (3 months) in a single course cannot make a massive contribution. Therefore, it is possible that the positive effects could be seen in the long-run after a continuous and sustained practice.

7.2. Results of Educational System and School Organisation Course.

This section includes the analysis of student teachers' perceived competence level for the *Educational System and School Organisation* course. This experience was developed during the first semester of the academic year 2017-2018.

7.2.1. Pre-Test Results for Educational System and School Organisation Course

The pre-test was answered during the first week of the course (18th-22nd September 2017) in class through google forms. In total, 105 completely filled questionnaires were collected (Table 135). Out of these 105 questionnaires, 34 were from the experimental group, 36 from control group 1 and 35 from control group 2.

Table 135. *Number of filled questionnaires (pre-test, course 2).*

Group	Number of answers	% in relation to the students' enrolled in the course
Experimental Group	34	87.18%
Control Group 1	36	65.45%
Control Group 2	35	76.08%

7.2.1.1. Consistency and Data Distribution

Before analysing students' perceived competence level at the beginning of the second course, the consistency of the obtained answers were analysed through Cronbach's Alpha. The results showed high consistency because in all cases Cronbach's alpha was greater than $\alpha=.9$ for the experimental and control groups (Table 136), a value that has been considered as an indicator of an excellent consistency (Corral, 2009). However, such a high Cronbach's alpha could also be the result of several items measuring the same (Cortina, 1993).

Once the questionnaire's internal consistency had been ensured, data distribution was analysed. Kolmogorov-Smirnov and Shapiro-Wilk tests were used to explore the normality of distribution of the data. For most of the items and the groups, the results were in general normally distributed. Some adjustments were made when the data was not normally distributed, mainly identifying and eliminating the outliers from the analysis.

Table 136. *Results of Cronbach's Alpha for the pre-test of the second course.*

Group	Cronbach's Alpha	Cronbach's Alpha for the standardised items	Number of items
Experimental	.926	.921	20
Control 1	.939	.944	20
Control 2	.964	.966	20

After analysing the consistency and the data distribution, the data was analysed descriptively (means and standard deviations) and inferentially (correlations, t-tests and ANOVAs).

7.2.1.2. Within-Groups Analysis: Pre-Test Course 2

Several correlations and One-Way ANOVAs were run so as to explore whether teacher students' perceptions were constant for the items that measured the same competence. Additionally, it

was explored whether students perceived that their competence level was similar for the different domains and competences analysed.

With regard to **self-reflection competence** (Table 137), the Pearson r indicated that the correlations were positive, strong and significant for the experimental group (.552, $p=.001 < r < .624$, $p<.001$), the control group 1 (.581, $p<.001 < r < .683$, $p<.001$) and the control group 2 (.482, $p=.003 < r < .711$, $p<.001$). This result suggested that pre-service teachers' perceptions were homogeneous for all items. A One-Way ANOVA was run to explore whether a main effect of item existed; that is, if students considered that their level for each assessed dimension was similar. The ANOVA results suggested that there was an effect of item for the experimental group ($F=(2,33)=921.52$, $p<.001$, $\eta^2=.965$). The pairwise comparisons showed that there was a significant difference between students' perception for item 3 in comparison to items 1 ($p=.016$) and 2 ($p=.012$). This main effect of item was also found for control group 1 ($F=(2,35)= 998.58$, $p<.001$, $\eta^2=.966$). Nevertheless, the pairwise comparisons with the significance values adjusted to the number of comparisons did not show any significant differences. An effect of item was also found for control group 2 ($F=2,34)=631,48$, $p<.001$, $\eta^2=.949$). The pairwise comparisons indicated that the significant differences were between items 2 and 3 ($p=.010$). In general, it seemed that students tended to perceive that they had more difficulties to identify and reflect on their beliefs about school organisation.

Table 137. Means and Standard Deviations for self-reflection competence (pre-test, course 2).

Self-reflection competence items	Experimental		Control 1		Control 2	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
To identify and reflect on the own conceptions about the Educatio System, school organisation and the impact school organisation has on the teaching and learning process.	6.44	1.67	6.33	1.43	5.89	1.71
To explore and reflect on the own characteristics as a teacher, the strengths and the areas of improvement.	6.35	1.63	6.19	1.39	5.83	1.72
To identify and reflect on the own beliefs about school organisation.	7.12	1.23	6.69	1.35	6.51	1.63
Competence mean	6.63	.22	6.41	.20	6.08	.768

Regarding **classroom management competence** (Table 138), the correlations showed a strong consistency of students' perceptions for the experimental group (.466, $p=.005 < r < .912$, $p<.001$), the control group 1 (.678, $p<.001 < r < .915$, $p<.001$) and the control group 2 (.714, $p<.001 < r < .942$, $p<.001$). However, such high correlations could also indicate that there were

two items that were measuring the same. It was explored whether pre-service teachers considered that they had the dimensions, which measure this competence, developed to the same extent. The results pointed a main effect of item for the experimental group ($F=(2,33)=821.99, p<.001, \eta^2=.96$). According to the pairwise comparisons, this difference was found between items 2 and 3 ($p=.044$). In the same line, there was a main effect for control group 1 ($F=(2,35)= 821.99, p<.001, \eta^2=.97$), but, in this case, the significant differences were between item 3 and items 1 ($p=.002$) and 2 ($p<.001$). As for control group 2, an effect of item was also identified ($F=(1,34)= 559, p<.025, \eta^2=.94$). Again, the significant differences were between item 3 and items 1 ($p=.001$) and 2 ($p=.049$).

Table 138. Means and Standard Deviations for classroom management competence (pre-test, course 2).

Classroom management competence items	Experimental		Control 1		Control 2	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
To identify and analyse different strategies to manage communication, collaborative learning, group management, to give instructions and to analyse classroom dynamics.	5.97	1.62	6.61	1.29	5.83	1.74
To analyse and value different organisational strategies which allow to include different learning levels and rhythms, as well as students' social differences.	5.88	1.41	6.58	1.30	6.06	1.53
To identify organisational strategies which promote students' participation.	6.50	1.50	7.19	1.26	6.49	1.72
Competence mean.	6.12	1.24	6.79	1.16	6.12	1.53

As for **research competence** (Table 139), the correlations tended to be moderate to strong for the experimental group ($.464, p=.006, < r < .854, p<.001$) and control group 1 ($.475, p<.001 < r < .892, p<.001$). For control group 2, the correlations were strong in all cases ($.848, p<.001 < r < .950, p<.001$). Overall, as the correlations indicate, pre-service teachers' answers were consistent for all the items measuring research competence. A One-Way ANOVA was run to explore a possible main effect of item. The test's results showed a main effect of item for the experimental group ($F=(2,33)= 529.76, p<.001, \eta^2=.94$), control group 1 ($F=(2,35)= 1408.5, p<.001, \eta^2=.97$) and control group 2 ($F=(2,34)= 350.11, p<.001, \eta^2=.91$). However, the pairwise comparisons with the p values adjusted to the number of comparisons did not reach significance for any of the three groups.

With regard to **project management competence** (Table 140), Pearson *r* results showed that the correlations were moderate to strong for the experimental group (.544, $p=.002 < r < .926$, $p<.001$), the control group 1 (.542, $p=.001 < r < .902$, $p<.001$) and the control group 2 (.451, $p=.007 < r < .919$, $p<.001$). It was explored through a factorial analysis a possible main effect of item which existed for the experimental group ($F=(6,27)= 469.69$, $p<.001$, $\eta^2=.94$). The pairwise comparisons showed that this difference was between items 3 and 4 ($p=.023$). A main effect of item was also found for control group 1 ($F=(6,35)= 879.7$, $p<.001$, $\eta^2=.96$) and 2 ($F=(6,34)=426.88$, $p<.001$, $\eta^2=.92$), although none of the pairwise comparisons reached significance.

Table 139. Means and Standard Deviations for research competence (pre-test, course 2).

Research Competence items	Experimental		Control 1		Control 2	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
To search and find trustworthy sources to obtain information about school organisation and the Educational System.	6.15	1.65	6.61	1.18	5.86	1.94
To critically reflect on research results relative to teaching innovation.	5.62	1.89	6.61	1.46	5.60	1.93
To critically analyse educational proposals coming from research, innovation and the educational Administration.	5.59	1.76	6.44	1.25	5.66	1.83
Competence mean	5.78	1.47	6.56	1.05	5.70	1.80

Table 140. Means and Standard Deviations for Project Management Competence (pre-test, course 2).

Project Management Competence Items	Experimental		Control 1		Control 2	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
To value what contextual and educational aspects have to be considered when an innovation project is implemented in a school.	5.12	1.79	6.00	1.43	5.66	2.13
To identify what internal and external stakeholders can provide support to the design and development of a CLIL project.	5.41	1.84	6.08	1.38	5.49	1.93
To analyse the mechanisms used in the educational projects to get different stakeholders involved.	5.52	1.20	6.06	1.39	5.54	1.60
To recognise and value different mechanisms to favour the coordination of the stakeholders and institutions involved in the implementation of the CLIL project.	4.45	1.95	5.72	1.47	5.37	1.75
To value what organisational and curricular implications the implementation of an innovative project has in a school.	4.82	1.66	6.08	1.42	5.51	1.58
To explore the aspects to be considered in order to adapt an innovation project to the	5.10	1.51	6.17	1.54	5.69	1.89

educational and contextual characteristics of a school.						
To search and propose different mechanisms to evaluate the functioning of a CLIL project in a school.	5.21	1.70	6.14	1.5	5.74	1.92
Competence mean	5.11	1.49	6.04	1.22	5.57	1.60

Finally, the consistency and a possible main effect of item were also analysed for **language and content knowledge** (Table 141). The correlations were moderate to strong for the experimental group ($.348, p=.044 < r < .824, p<.001$) and control group 2 ($.414, p=.021 < r < .859, p<.001$). Regarding control group 1 ($.563, p<.001 < r < .723, p<.001$), no all items significantly correlated, but those that significantly correlated presented strong correlations. Following the same procedure as with the competences, a possible main effect of item was explored through a One-Way ANOVA. The results pointed a main effect for the experimental group ($F=(2,33)= 1184.84, p<.001, \eta^2=.97$). The significant differences were for item 1 with items 2 ($p=.008$) and 3 ($p=.005$). A significant main effect of item was found for control group 1 ($F=(2,35)= 577.45, p<.001, \eta^2=.94$), but the significant differences were between items 1 and 2 ($p=.027$). Lastly, a main effect of item was found for control group 2 ($F=(2,30)= 282,233, p<.001, \eta^2=.9$), although none of the comparisons reached significance.

Table 141. Means and Standard Deviations for language and content knowledge (pre-test, course 2).

Requisites	Experimental		Control 1		Control 2	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
To comprehend the main ideas of an oral or written text in an additional language about topics related to education.	7.47	1.29	6.33	1.59	5.29	1.85
To produce oral and written text in an additional language about topics related to education.	6.91	1.42	5.86	1.84	5.03	2.11
To describe, explain, and justify in an additional language	6.97	1.29	6.08	1.70	5.18	1.93
Mean of language knowledge	7.11	1.21	6.08	1.52	5.25	1.96
To make proposals and evaluations about the educational system and school organisation grounded on theory	6.35	1.48	6.56	1.34	5.89	1.88

On the other hand, a possible main effect of competence was explored; that is, whether participants perceived that they had all competences developed to the same level. Table 142 shows the means and standard deviations per each competence and group. The ANOVA results showed a main effect of competence for the **experimental group** ($F=(4,33)= 1391.85, p<.001, \eta^2=.98$). Thus, the students of this group did not perceive that their competence level

was the same for all domains. The pairwise comparisons revealed a significant difference between project management and all the other competences and requisites. In all cases, pre-service teachers from the experimental group believed that their project management competence was significantly less developed than the other competences and requisites. Additionally, participants believed that their research competence was significantly less developed than self-reflection competence ($p<.001$) and their language knowledge ($p=.002$). At the same time, teacher students from the experimental group considered that the classroom management competence level was significantly lower than their language knowledge ($p=.025$).

Table 142. Means and Standard Deviations for competences and requisites (pre-test, course 2).

Competences and Requisites	Experimental		Control 1		Control 2	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
Self-reflection competence	6.63	.22	6.41	.20	6.08	.768
Classroom management Competence	6.12	1.24	6.79	1.16	6.12	1.53
Research Competence	5.78	1.47	6.56	1.05	5.70	1.80
Project Management Competence	5.11	1.49	6.04	1.22	5.57	1.60
Language knowledge	7.11	1.21	6.08	1.52	5.25	1.96
Content knowledge	6.35	1.48	6.56	1.34	5.89	1.88

The ANOVA results also showed a main effect of competence for **control group 1** ($F=(4,35)=1607.49, p<.001, \eta^2=.98$). The pairwise comparisons revealed that participants perceived that their project management competence was significantly less developed than classroom management ($p<.001$) and research ($p=.004$) competences. With regard to **control group 2**, a main effect of competence was also found ($F=(1,34)=579.67, p<.001, \eta^2=.94$). The significant differences were between project management and classroom management ($p=.001$) competences. The latter was perceived to be more developed than the former (Figure 46).

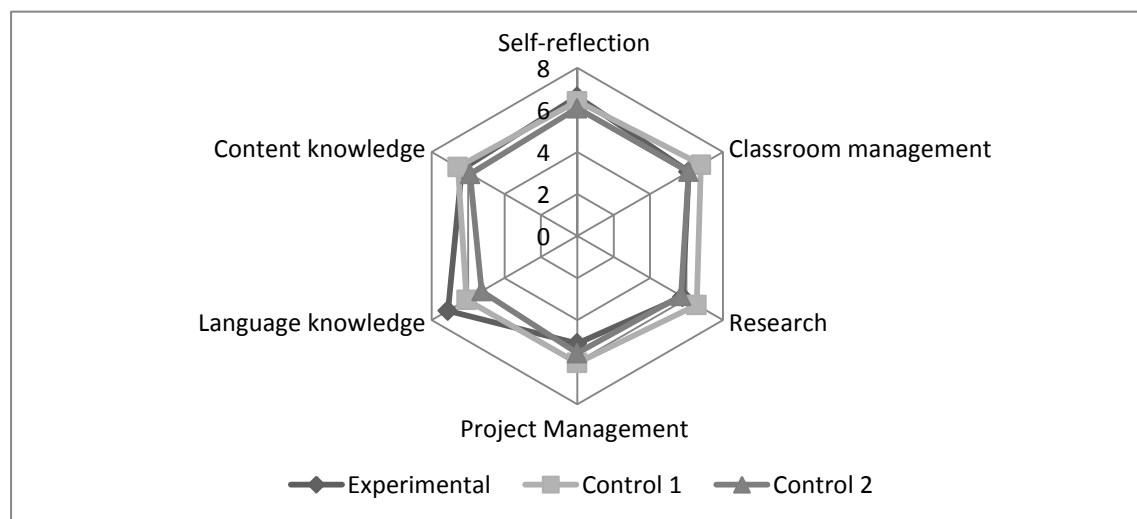


Figure 46. Students' perceptions regarding their competence and knowledge level (pre-test, course 2).

In short, the within-group analysis of the experimental and control groups results showed that participants' perceptions in terms of competence level tended to vary depending on the items assessed per each competence. In addition, teacher students did not think that they had all competences developed to the same extent.

7.2.1.3. *Between-Groups Analysis: Pre-Test Course 2*

Once analysed all groups separately, a between-groups analysis was carried out so as to identify significant differences between the experimental and control groups. For this reason, a possible main effect of group and an effect of competence*group were explored through a factorial analysis.

The ANOVA results did not indicate a main effect of group ($F(2)= 22.146, p=.062, \eta^2=.053$); that is, at the beginning of the subject, students' perceived competence level could not be attributed to the group participants belonged to. However, it did exist a significant main effect of competence*group ($F(2,102)=11.324, p<.001, \eta^2=.182$). Therefore, this result suggested that, even though the group did not affect participants' perceived level for all competences, the group could determine the perception for some of the competences. It was further explored in which competences existed an effect of competence*group.

As for **self-reflection competence** (Table 143), the ANOVA results did not show any significant main effect of group. Therefore, this seemed to indicate that all groups started the second course with a similar level of self-reflection competence.

Table 143. ANOVA results to analyse a main effect of group for self-reflection competence (pre-test, course 2).

Self-reflection competence items	ANOVA Results
To identify and reflect on the own conceptions about the educational System, school organisation and the impact school organisation has on the teaching and learning process.	$(F(2)= 1.167, p=.316, \eta^2=.96)$
To explore and reflect on the own characteristics as a teacher, the strengths and the areas of improvement.	$(F(2)= 1.887, p=.998, \eta^2=.98)$
To identify and reflect on the own beliefs about school organisation.	$(F(2)=1.652, p=.197, \eta^2=.94)$
Competence mean	$(F(2)= 3.164, p=.078, \eta^2=.94)$

Regarding **classroom management competence** (Table 144), a main effect of competence was found for the general mean of this competence ($F(2)= 3.100, p=.049, \eta^2=.88$), but not for every

single item that measured classroom management competence. However, none of the pairwise comparisons reached significance.

Table 144. ANOVA results to analyse a main effect of group for classroom management competence (pre-test, course 2).

Classroom management competence items	ANOVA Results
To identify and analyse different strategies to manage communication, collaborative learning, group management, to give instructions and to analyse classroom dynamics.	$F(2) = 2.537, p = .084, \eta^2 = .90$
To analyse and value different organisational strategies which allow to include different learning levels and rhythms, as well as students' social differences.	$F(2) = 2.347, p = .101, \eta^2 = .91$
To identify organisational strategies which promote students' participation.	$F(2) = 2.574, p = .081, \eta^2 = .90$
Competence mean.	$F(2) = 3.100, p = .049, \eta^2 = .88$

With regard to **research competence**, the ANOVA indicated a main effect of group for all items that measured this competence and for the general mean (Table 145). The pairwise comparisons pointed a significant difference for the general mean between the control groups 1 and 2 ($p = .049$). In this case, participants from the control group 2 perceived that their research competence level was significantly lower than that one of the control group 1. All the other comparisons did not reach significance.

Table 145. ANOVA results to analyse a main effect of group for research competence (pre-test, course 2).

Research Competence items	ANOVA Results
To search and find trustworthy sources of information to obtain information about school organisation and the educational System.	$F(2) = 1.964, p < .146, \eta^2 = .93$
To critically reflect on research results relative to teaching innovation.	$F(2) = 3.802, p = .026, \eta^2 = .86$
To critically analyse educational proposals coming from research, innovation and the educational Administration.	$F(2) = 3.018, p = .053, \eta^2 = .89$
Competence mean	$F(2) = 3.639, p = .030, \eta^2 = .87$

The One-Way ANOVA showed that there was a main effect of group for some of the items and the general mean of **project management competence** (Table 146). The pairwise comparisons showed that the significant differences were between the experimental group and the control

group 1 for items 4 ($p=.010$), 5 ($p=.003$) and 6 ($p=.030$), as well as for the general perception of project management competence ($p=.026$). In all cases, the experimental group perceived that their competence level was significantly lower than that one of the control group 1.

Table 146. ANOVA results to analyse a main effect of group for project management competence (pre-test, course 2).

Project Management Competence Items	ANOVA Results
To value what contextual and educational aspects have to be considered when an innovation project is implemented in a school.	$F(2)= 2.121, p=.125, \eta^2=.92$
To identify what internal and external stakeholders can provide support to the design and development of a CLIL project.	$F(2)= 1.602, p=.206, \eta^2=.94$
To analyse the mechanisms used in the educational projects to get different stakeholders involved.	$F(2)= 1.642, p=.199, \eta^2=.94$
To recognise and value different mechanisms to favour the coordination of the stakeholders and institutions involved in the implementation of the CLIL project.	$F(2)= 4.760, p=.011, \eta^2=.82$
To value what organisational and curricular implications the implementation of an innovative project has in a school.	$F(2)= 5.752, p=.004, \eta^2=.87$
To explore the aspects to be considered in order to adapt an innovation project to the educational and contextual characteristics of a school.	$F(2)= 3.455, p=.035, \eta^2=.87$
To search and propose different mechanisms to evaluate the functioning of a CLIL project in a school.	$F(2)= 2.613, p=.078, \eta^2=.90$
Competence mean	$F(2)= 3.573, p=.032, \eta^2=.87$

As for **language knowledge**, a main effect of group was found for all the items measuring this competence and the general mean (Table 147). The pairwise comparisons indicated that, in general, the significant difference were between the experimental group and the control group 1 ($p=.024$) and 2 ($p<.001$). This finding suggested that the group students belonged to determined their perceived level of language knowledge. In this case, students from the experimental group perceived that their language proficiency was significantly higher than the one of the control groups. However, no main effect of group was found for content knowledge.

Table 147. ANOVA results to analyse a main effect of group for language and content knowledge (pre-test, course 2).

Requisites	ANOVA Results
To comprehend the main ideas of an oral or written text in an additional language about topics related to education.	F=(2)= 15.469, $p<.001$, $\eta^2=.52$
To produce oral and written texts in an additional language about topics related to education.	F=(2)= 9.319, $p<.001$, $\eta^2=.69$
To describe, explain, and justify in an additional language	F=(2)= 9.917, $p<.001$, $\eta^2=.67$
Mean of language knowledge	F=(2)= 11.757, $p<.001$, $\eta^2=.63$
To make proposals and evaluations about the educational system and school organisation grounded on theory	F=(2)= 1.511, $p=.193$, $\eta^2=.94$

Overall, the ANOVA results of the between-groups comparisons suggested that the group students belonged to explained the perceived level of competence for some of the competences analysed. However, the starting point of the three groups seemed to be similar.

7.2.2. Post-test Results for Educational System and School Organisation Course

The self-perceived competence level questionnaire was administered to the three groups at the end of the first semester from the academic year 2017-2018 through Google forms. Table 148 shows the percentage of filled questionnaires that were obtained for the pre- and post-test, as well as the percentage of students that answered both questionnaires.

Table 148. Information about the post-test questionnaires answered.

Group	Number filled of questionnaires	% in relation to the number of students	% of students that answered both pre- and post-test
Experimental group	37	97.87%	82.05%
Control group 1	29	52.72%	47.62%
Control group 2	27	58.7%	45.65%

7.2.2.1. Consistency and Data Distribution

The consistency of the answers obtained were analysed through Cronbach’s Alpha before analysing students’ perceived competence level at the end of the second course. The results indicated a high consistency because, in all cases, Cronbach’s alpha was greater than $\alpha=.9$ for the experimental and control groups (Table 149).

Once the reliability of the data obtained through the questionnaire was ensured, the normality of distribution was assessed with the tests Kolmogorov-Smirnov and Shapiro-Wilk. In general,

the data was normally distributed. However, there were some items of the control groups 1 and 2 that were not normally distributed. In these cases, the outliers were identified and removed from the analysis.

Table 149. *Cronbach's Alpha value for the post-test (course 2).*

Group	Cronbach's Alpha	Cronbach's Alpha based on standardised items	Number of items
Experimental	.907	.909	20
Control 1	.927	.927	20
Control 2	.931	.941	20

The data relative to the marks obtained in *Educational System and School Organisation* were also analysed for normality of distribution. However, some of the marks were not normally distributed. After applying several procedures to get the data normalised, it was not possible to normalise them. Therefore, all the tests used for the analysis of students' marks were non-parametric.

7.2.2.2. *Within-Groups Analysis: Post-test Course 2*

The items that measured the same competence were correlated in order to explore whether participants' answers were consistent. This analysis was done with *Pearson's r*. Additionally, it was analysed a possible main effect of item per each group. That is, whether participants perceived that they were more competent in some dimensions of a competence (the items) than others. This analysis was carried through a One-Way ANOVA.

As for **Self-reflection competence** (Table 150), the results of the correlation indicated that, for the experimental group, the answers to the different items were partially consistent since correlations were low to middle ($.353, p=.032 \leq r \leq .573, p<.001$). This is also the case of the control group 2 ($.358, p=.086 \leq r \leq .582, p=.003$). On the contrary, the answers of the participants in control group 1 appeared to be more consistent because the correlations were stronger ($.824, p<.001 \leq r \leq .897, p<.001$).

An ANOVA was calculated in order to explore whether students' perceived they were equally competent in all the dimensions analysing self-reflection competence. The results showed that there was a main effect of item for the experimental group ($F=(2,36)=3446,23, p<.001, \eta^2=.96$), the control group 1 ($F=(2,28)=506,43, p<.001, \eta^2=.99$) and the control group 2 ($F=(2,23)=956,83, p<.001, \eta^2=.97$). Thus, participants of the three groups did not perceive they were equally competent for the three aspects analysed relative to self-reflection competence. The pairwise comparisons with the significance values adjusted to the number of comparisons did not show

any significant difference. However, all three groups perceived they were more competent for identifying and reflecting on the own conceptions about the educational system, school organisation and their impact on the teaching and learning process.

Table 150. Means and standard deviations of self-reflection competence (post-test, course 2).

Self-reflection competence items	Experimental		Control 1		Control 2	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
To identify and reflect on the own conceptions about the Educational System, school organisation and the impact school organisation has on the teaching and learning process.	7.92	.89	6.97	1.88	7.21	1.44
To explore and reflect on the own characteristics as a teacher, the strengths and the areas of improvement.	7.49	1.10	7.28	1.87	7.08	1.53
To identify and reflect on the own beliefs about school organisation.	7.84	1.01	7.03	1.61	7.50	1.35
Competence mean	7.74	.803	7.09	1.70	7.26	1.15

The consistency of participants' answers was also analysed for **classroom management competence** (Table 151). The results of *Pearson's r* test indicated that the answers of the experimental group were quite consistent since the correlations were from moderate to strong ($.428, p=.008 \leq r \leq .539, p=.001$). The same was true for the control group 1 ($.470, p=.010 \leq r \leq .592, p<.001$). As for the control group 2, the results indicated that students' answers were very consistent due to the strong correlations they presented ($.569, p=.004 \leq r \leq .742, p<.001$). Following the same procedure, an ANOVA was conducted so as to explore whether participants perceived they had developed all the different aspects of this competence to the same extend. The ANOVA indicated that there was a main effect of item for the experimental group ($F=(2,36)=3539.73, p<.001, \eta^2=.99$), the control group 1 ($F=(2,28)=2077.63, p<.001, \eta^2=.987$) and the control group 2 ($F=(2,23)=794.36, p<.001, \eta^2=.972$). Therefore, none of the three groups perceived they mastered up to the same extend the three dimensions evaluated for classroom management competence. Nevertheless, the pairwise comparisons appeared not to be significant.

Regarding **research competence** (Table 152), the results of the correlations indicated that the answers of the students in the experimental group went from not correlating at all (for items 1 and 2) to strong correlations (for items 2 and 3) ($.195, p=.248 \leq r \leq .563, p<.001$). However, control group 1 ($.517, p=.004 \leq r \leq .871, p<.001$) and control group 2 ($.421, p=.045 \leq r \leq .522, p=.020$) answers appeared to be consistent since the items presented strong correlations. An ANOVA was conducted so as to study a possible main effect of item. The results of the ANOVA

indicated that this effect existed for the experimental ($F=(2,23)=4486,922$, $p<.001$, $\eta^2=.992$), control 1 ($F=(2,23)=772,952$, $p<.001$, $\eta^2=.965$) and control 2 ($F=(2,23)=1201,309$, $p<.001$, $\eta^2=.982$) groups. However, the pairwise comparisons only showed a significant difference between items 1 and 3 for the experimental group ($p<.001$). Therefore, results seem to indicate that students' from the experimental group believed that were more competent for searching information than reflecting on it or using it as evidence.

Table 151. Means and standard deviations for classroom management competence (post-test, course 2).

Classroom management competence items	Experimental		Control 1		Control 2	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
To identify and analyse different strategies to manage communication, collaborative learning, group management, to give instructions and to analyse classroom dynamics.	7.43	.93	7.62	.86	7.08	1.59
To analyse and value different organisational strategies which allow to include different learning levels and rhythms, as well as students' social differences.	7.51	.90	7.03	1.27	6.83	1.13
To identify organisational strategies which promote students' participation.	7.59	1.01	7.52	1.02	7.25	1.42
Competence mean.	7.51	.768	7.39	.87	7.06	1.23

Table 152. Means and standard deviations for research competence (post-test, course 2).

Research Competence items	Experimental		Control 1		Control 2	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
To search and find trustworthy sources of information to obtain information about school organisation and the educational System.	8.03	.928	7.55	1.09	7.46	1.62
To critically reflect on research results relative to teaching innovation.	7.59	.985	7.07	1.96	7.33	1.20
To critically analyse educational proposals coming from research, innovation and the educational Administration.	7.27	.804	7.07	1.67	7.17	1.30
Competence mean	7.63	.69	7.23	1.40	7.28	1.16

As for **Project Management competence** (Table 153), the results of the *Pearson's r* correlations indicated that the answers of the participants from the experimental group tended to be consistent since correlations were moderate to strong ($.333$, $p=.044$, $\leq r \leq .723$, $p<.001$). However, item 3 did not correlate significantly with any of the other items. As for control group 1, the scenario was rather similar; that is, the correlations were moderate to strong ($.489$, $p=.007$, $\leq r \leq .850$, $p<.001$) but item 3 did not correlate with any of the other items. For control group 2, the situation was slightly different, all correlations were high ($.574$, $p=.003$, $\leq r \leq .850$,

$p < .001$) and item 3 did correlate with all the other items. An ANOVA was conducted in order to explore a possible main effect of item that could indicate that participants did not perceive they were equally competent for all items. The results indicated that there was a main effect of item for the experimental group ($F(6,36)=4100,31$, $p < .001$, $\eta^2=.991$), the control group 1 ($F(6,28)=1396,429$, $p < .001$, $\eta^2=.980$) and the control group 2 ($F(6,21)=634,64$, $p < .001$, $\eta^2=.968$). However, the pairwise comparisons with the significance values adjusted to the number of comparisons did not show any significant difference between participants' perceptions.

Table 153. Means and standard deviations for project management competence (post-test, course 2).

Project Management Competence Items	Experimental		Control 1		Control 2	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
To value what contextual and educational aspects have to be considered when an innovation project is implemented in a school.	7,51	.87	7.03	1.76	6.82	1.47
To identify what internal and external stakeholders can provide support the design and development of a CLIL project.	7.35	.86	7.28	1.13	6.92	1.89
To analyse the mechanisms used in the educational projects to get different stakeholders involved.	7.30	.91	7.28	.96	6.88	1.08
To recognise and value different mechanisms to favour the coordination of the stakeholders and institutions involved in the implementation of the CLIL project.	7.24	1.09	7.03	1.45	6.96	1.16
To value what organisational and curricular implications the implementation of an innovative project has in a school.	7.30	1.00	6.93	1.83	6.96	1.40
To explore the aspects to be considered in order to adapt an innovation project to the educational and contextual characteristics of a school.	7.62	.89	7.28	1.39	6.63	1.64
To search and propose different mechanisms to evaluate the functioning of a CLIL project in a school.	7.41	1.12	7.45	1.15	6.96	1.65
Competence mean	7.39	.702	7.18	1.04	6.87	1.27

As for the **requisites** (Table 154) in this course, the results of the correlations showed that the results of the experimental group strongly correlated ($.716$, $p < .001$, $\leq r \leq .837$, $p < .001$). The same was true for the control group 2 ($.646$, $p = .003$, $\leq r \leq .850$, $p < .001$). However, while items 1 and 2 did not correlate for the control group 1 ($r = .309$, $p = .116$), all the other correlations were strong ($.675$, $p < .001$, $\leq r \leq .736$, $p < .001$). Following the same procedure used for the competences, an

ANOVA was calculated in order to explore a possible main effect of item. A main effect was found for the experimental group ($F=(2,36)=1363,946$, $p<.001$, $\eta^2=.974$), the control group 1 ($F=(3,26)=984,567$, $p<.001$, $\eta^2=.974$) and the control group 2 ($F=(3,18)=239,846$, $p<.001$, $\eta^2=.930$). The pairwise comparisons showed a significant difference between the perceptions relative to item 1 and items 2 ($p=.041$) and 3 ($p=.010$) for the experimental group. Likewise, there was a significant difference between the item 1 and items 2 ($p=.001$) and 3 ($p=.017$), as well as between items 2 and 3 ($p=.019$) for the control group 1. In general, all groups perceived they were more competent at the level of comprehension than production of ideas in an additional language.

Table 154. Means and standard deviations for language and content knowledge (post-test, course 2).

Requisites	Experimental		Control 1		Control 2	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
To comprehend the main ideas of an oral or written text in an additional language about topics related to education.	8.24	1.50	7.07	1.79	5.79	1.81
To produce oral and written text in an additional language about topics related to education.	7.89	1.33	5.89	1.42	5.38	1.99
To describe, explain, and justify in an additional language	7.68	1.40	6.41	1.57	5.48	1.47
Mean of language knowledge	7.94	1.31	6.44	1.51	5.45	1.80
To make proposals and evaluations about the educational system and school organisation grounded on theory	7.54	.931	7.21	1.47	7.08	1.47

A subsequent step was to analyse a possible main effect of competence and requisite. That is, whether participants in the three groups perceived they had develop all competences and requisites up to the same extent. To analyse this possible effect of competence, an ANOVA was run. The means of each competence and requirement were used to calculate this possible main effect (Table 155).

The results of the ANOVA showed that there was a main effect of competence for the experimental group ($F=(5,36)=5507,707$, $p<.001$, $\eta^2=.994$), the control group 1 ($F=(6,28)=1481.584$, $p<.001$, $\eta^2=.981$) and the control group 2 ($F=(5,23)=1009,464$, $p<.001$, $\eta^2=.978$). This indicated that none of the participants perceived they were equally competent for the competences and requisites analysed. The pairwise comparisons with the significance values adjusted to the number of comparisons revealed that there were no significant differences between the competences and requisites for the experimental and control 1 groups.

Nevertheless, the pairwise comparisons showed that there was a significant difference between the perceived language knowledge of group 2 and self-reflection ($p=.001$), classroom management ($p=.001$), research ($p=.002$) and project management ($p=.013$) competences, as well as between language and content knowledge ($p=.011$). In general, control group 2 perceived that their knowledge of the additional language was significantly lower than all the other competences and content knowledge (Figure 47).

Table 155. Mean of each competence and requisite (post-test, course 2).

Competences and Requisites	Experimental		Control 1		Control 2	
	\bar{x}	SD	\bar{x}	SD	\bar{x}	SD
Self-reflection competence	7.74	.803	7.09	1.70	7.26	1.15
Classroom management Competence	7.51	.768	7.39	.87	7.06	1.23
Research Competence	7.63	.69	7.23	1.40	7.28	1.16
Project Management Competence	7.39	.702	7.18	1.04	6.87	1.27
Language knowledge	7.94	1.31	6.44	1.51	5.45	1.80
Content knowledge	7.54	.931	7.21	1.47	7.08	1.47

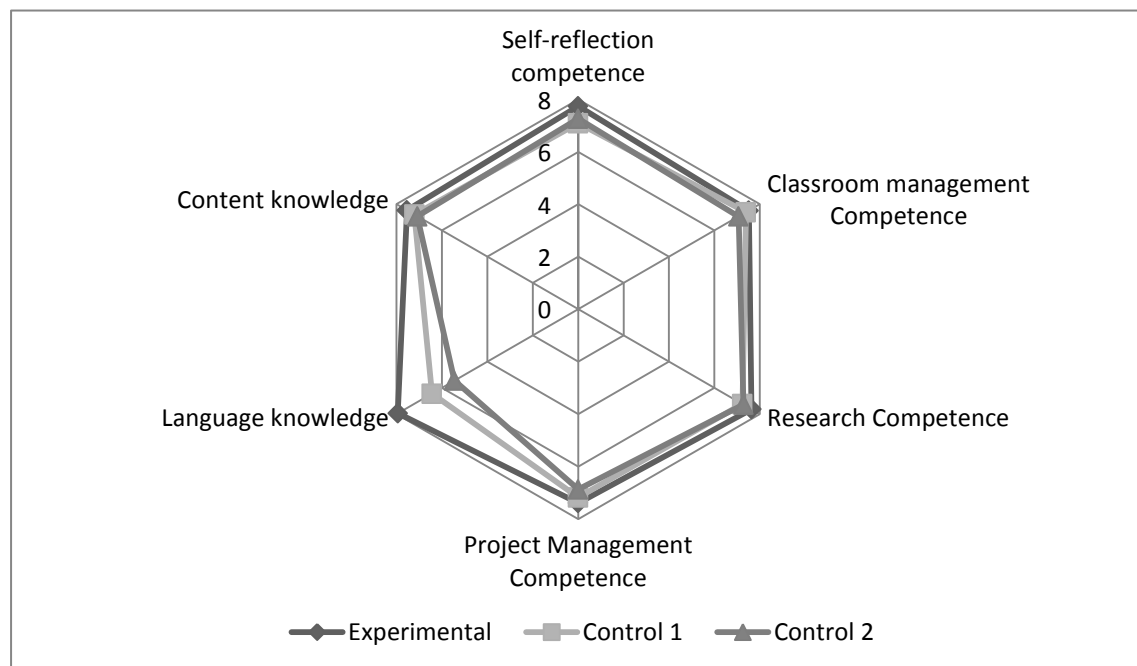


Figure 47. Students' perceptions regarding their competence and knowledge level (post-test, course 2).

Overall, it seems that the three groups had developed each competence and competence dimension to a different degree. However, most of these differences appeared not to be significant. The following step was to explore whether there were significant differences between the perception of the experimental group and the control ones.

7.2.3.3. *Between-Groups Analysis: Post-Test Course 2*

The implementation of this design aimed to analyse whether a competence-based approach favoured the acquisition of CLIL competences. For this reason, it was explored whether the experimental and control groups perceived they were equally competent for each of the competences and the items that assessed each competence and requisite. To this end, a one-way ANOVA was used.

As for **self-reflection competence** (Table 156), the results of the One-Way ANOVA indicated that there was no main effect of group except for item 1. However, item 3 was close to significance. The pairwise comparisons showed that the main difference was between the experimental and control group 1 for items 1 ($p=.025$) and 3 ($p=.049$). The students in the experimental group perceived they were more competent than the students in the control group 1. However, in general, all pre-service teachers perceived they had developed this competence up to the same extent.

Table 156. ANOVA's results for the analysis of a main effect of group for self-reflection competence (post-test, course 2).

Self-reflection competence items	ANOVA Results
To identify and reflect on the own conceptions about the educational System, school organisation and the impact school organisation has on the teaching and learning process.	($F=(2,87)=4,030, p=.021, \eta^2=.830$)
To explore and reflect on the own characteristics as a teacher, the strengths and the areas of improvement.	($F=(2,87)=,540, p=.585, \eta^2=.975$)
To identify and reflect on the own beliefs about school organisation.	($F=(2,87)=3,004, p=.055, \eta^2=.871$)
Competence mean	($F=(2,87)=2,483, p=.089, \eta^2=.892$)

It was also explored a main effect of group for **classroom management competence** (Table 157). The findings revealed that there was no main effect of group for classroom management competence except for item 2 ($F=(2,87)=3,199, p=.046, \eta^2=.86$). However, the pairwise comparisons were not significant, although the comparison between the experimental and control group 2 for item 2 was almost significant ($p=.059$). According to the results obtained, it seems that no significant differences relative to classroom management competence could be attributed to the group the participants belonged to.

Table 157. ANOVA's results for the analysis of a main effect of group for classroom management competence (post-test, course 2).

Classroom management competence items	ANOVA Results
To identify and analyse different strategies to manage communication, collaborative learning, group management, to give instructions and to analyse classroom dynamics.	(F=(2,87)=1,529, p=.222, η^2 =.93)
To analyse and value different organisational strategies which allow to include different learning levels and rhythms, as well as students' social differences.	(F=(2,87)=3,199, p=.046, η^2 =.86)
To identify organisational strategies which promote students' participation.	(F=(2,87)=,693, p=.503, η^2 =.97)
Competence mean	(F=(2,87)=1,757, p=.179, η^2 =.92)

A one-way ANOVA was run in order to explore a possible main effect of group for **Research Competence** (Table 158). The results of the ANOVA indicated that no significant differences were found for either any of the items that measured research competence perception or the competence mean. Therefore, it appears that all groups perceived they had developed this competence up to the same extent.

Table 158. ANOVA's results for the analysis of a main effect of group for research competence (post-test, course 2).

Research Competence items	ANOVA Results
To search and find trustworthy sources of information to obtain information about school organisation and the Educational System.	(F=(2,87)=2,086, p=.130, η^2 =.91)
To critically reflect on research results relative to teaching innovation.	(F=(2,87)=1,113, p=.333, η^2 =.95)
To critically analyse educational proposals coming from research, innovation and the educational Administration.	(F=(2,86)=,205, p=.815, η^2 =.99)
Competence mean	(F=(2,87)=1312, p=.275, η^2 =.94)

The results of the one-way ANOVA for the **project management competence** (Table 159) indicated that there was just a significant difference for item 6 (F=(2,87)=4,377, p=.015, η^2 =.87). The pairwise comparisons showed that the significant differences were found between the experimental group and the control group 2 (p=.0.12). That is, the experimental group perceived they were more able to explore the aspects to be considered in order to adapt an innovation project to the educational and contextual characteristics of a school than control group 2.

Nonetheless, it seems that the three groups perceived to be equally competent for project management competence.

Table 159. ANOVA's results for the analysis of a main effect of group for project management competence (post-test, course 2).

Project Management Competence Items	ANOVA Results
To value what contextual and educational aspects have to be considered when an innovation project is implemented in a school.	(F=(2,85)=2,028, $p=.138$, $\eta^2=.91$)
To identify what internal and external stakeholders can provide support the design and development of a CLIL project.	(F=(2,87)=,885, $p=.416$, $\eta^2=.96$)
To analyse the mechanisms used in the educational projects to get different stakeholders involved.	(F=(2,87)=1,593, $p=.270$, $\eta^2=.93$)
To recognise and value different mechanisms to favour the coordination of the stakeholders and institutions involved in the implementation of the CLIL project.	(F=(2,87)=,447, $p=.641$, $\eta^2=.98$)
To value what organisational and curricular implications the implementation of an innovative project has in a school.	(F=(2,87)=,683, $p=.508$, $\eta^2=.97$)
To explore the aspects to be considered in order to adapt an innovation project to the educational and contextual characteristics of a school.	(F=(2,87)=4,377, $p=.015$, $\eta^2=.87$)
To search and propose different mechanisms to evaluate the functioning of a CLIL project in a school.	(F=(2,87)=1,155, $p=.320$, $\eta^2=.95$)
Competence mean	(F=(2,87)=2,017, $p=.139$, $\eta^2=.91$)

Regarding **language knowledge**, the results showed a significant main effect of group for all the items assessing this requisite and the overall mean (Table 160). According to the results of the eta squared (η^2), the effect sizes were large (bigger than .2) (Richardson, 2011; Tabachnick & Fidell, 2007; Vacha-Haase & Thompson, 2004) what indicated that at least 30% of the variance could be explained by the group the participants belonged to. The pairwise comparisons indicated that for item 1 there were significant differences between the experimental group and the control groups 1 ($p=.018$) and 2 ($p<.001$) and between the control groups ($p=.034$). As for item 2, there were significant differences between the experimental group and the control groups 1 ($p<.001$) and 2 ($p<.001$). For item 3, the scenario was the same, the differences were between the experimental group and the control groups 1 and 2 ($p=.003$; $p<.001$ respectively). For the overall mean of language knowledge, there was a significant difference between the

experimental group and the control groups 1 ($p < .001$) and 2 ($p < .001$). In all cases, the experimental group perceived that their knowledge of the additional language was higher in comparison to the participants in the control groups.

Table 160. ANOVA's results for the analysis of a main effect of group for language and content knowledge (post-test, course 2).

Requisites	ANOVA Results
To comprehend the main ideas of an oral or written text about topics related to education in an additional language.	($F=(2,82)=13,882, p < .001, \eta^2=.49$)
To produce oral and written text in an additional language about topics related to education.	($F=(2,85)=22,780, p < .001, \eta^2=.30$)
To describe, explain, and justify in an additional language	($F=(2,84)=15890, p < .001, \eta^2=.45$)
Mean of language knowledge	($F=(2,87)=215,890, p < .001, \eta^2=.36$)
To make proposals and evaluations about the educational system and school organisation grounded on theory	($F=(2,87)=1,076, p=.345, \eta^2=.95$)

As for **content knowledge** (Table 160), the results showed that there were no significant differences between the experimental and control groups. That is, all three groups perceived that they had acquired the course's content knowledge to the same extent. This result was not surprising since all three groups followed the same teaching plan and were supposed to work the same content.

Table 161. ANOVA's results for the analysis of a main effect of group for each competence (post-test, course 2).

Competences and Requisites	ANOVA RESULTS
Self-reflection competence	($F=(2,87)=2,483, p=.089, \eta^2=.892$)
Classroom management Competence	($F=(2,87)=1,757, p=.179, \eta^2=.92$)
Research Competence	($F=(2,87)=1312, p=.275, \eta^2=.94$)
Project Management Competence	($F=(2,87)=2,017, p=.139, \eta^2=.91$)
Language knowledge	($F=(2,87)=215,890, p < .001, \eta^2=.36$)
Content knowledge	($F=(2,87)=1,076, p=.345, \eta^2=.95$)

Thus, as table 161 shows, apparently, only significant differences could be found for language knowledge. This suggests that teaching the content through an additional language had a positive effect on the perception of pre-service teachers regarding language knowledge. Nevertheless, the competence-based approach does not seem to have a significant effect on

students' perceptions of competence development because there are no differences between the experimental and control group.

7.2.3. Comparison of Pre- and Post-test results for Educational System and School Organisation Course

Once the post-test results for *Educational System and School Organisation* course had been analysed, the following step was to explore whether the competence-based approach had a positive impact on students' perceived competence level. For this reason, first of all, it was compared the perceived competence level between the beginning and the end of the course for each group through several paired t-tests. Secondly, several analysis of covariance (ANCOVA) were conducted in order to explore whether perceptions could be attributed to the group participants' belonged to, after controlling for their starting point.

7.2.3.1. Within-group Comparison of Pre- and Post-test Results

The perceived competence and knowledge level was calculated before and after the experience (Table 162). Several paired-samples t-tests were run in order to explore whether the learning experience offered in the course *Educational System and school organisation* had a positive impact on students' perceived competence level.

The results of the t-test indicated that the learning experience offered in an educational course had a positive impact on students' perceived competence and knowledge level (Table 163). This was especially the case for the experimental group since the level of significance was lower than $p < .001$ for all the competences and requisites. The learning experience offered during the first semester of the academic year 2017-2018 also had a positive impact on the perceived competence and knowledge level of control group 2 for all competences and requisites. However, this was not the case for control group 1 since students of this group perceived that they had improved in research competence, project management and language knowledge. However, all the other comparisons were close to significance.

Table 162. Pre- and post-test means for each of the competences and requisites (course 2).

Competences and Requisites	Experimental		Control 1		Control 2	
	Pre-test	Post-test	Pre-test	Post-test	Pre-test	Post-test
Self-reflection competence	6.63	7.74	6.41	7.09	6.08	7.26
Classroom Management Competence	6.12	7.51	6.79	7.39	6.12	7.06
Research Competence	5.78	7.63	6.56	7.23	5.70	7.28
Project Management Competence	5.11	7.39	6.04	7.18	5.57	6.87
Language knowledge	7.11	7.94	6.08	6.44	5.25	5.45
Content knowledge	6.35	7.54	6.56	7.21	5.89	7.08

Table 163. Results of the t-test for the pre- and post-test results (course 2).

Competences & Requisites	Experimental	Control 1	Control 2
Self-reflection Competence	t(31)=5,401, p<.001	t(20)=5,401, p=.071	t(15)=3,454, p=.004
Classroom Management Competence	t(31)=5,726, p<.001	t(20)=2,024, p=.056	t(15)=2,918, p=.011
Research Competence	t(31)=6,394, p<.001	t(20)=3,008, p=.007	t(15)=3,038, p=.008
Project Management	t(31)=7,857, p<.001	t(20)=5,583, p<.001	t(15)=3,902, p=.001
Language knowledge	t(31)=5,869, p<.001	t(20)=2,581, p=.018	t(15)=2,449, p=.027
Content knowledge	t(31)=4,507, p<.001	t(20)=1958, p=.064	t(15)=2,183, p=.045

Results of control group 1 might not have shown major changes in the students' competence level because these participants could have overrated their competence level before starting the course. This could have happened because students were not aware of their starting point or they did not know what the items actually implied. However, the other two groups could also have overrated their perceived competence and knowledge level. On the other hand, it was quite surprising that pre-service students in the control groups perceived they had improved their additional language knowledge. It was surprising because, to the best of our knowledge, they had neither been taught through a foreign language nor had an English course. However, it is true that students were exposed to different learning situations and experiences apart from this course and these studies. However, it would be rare that the students' individual experiences affected the overall mean of the group. Nevertheless, the number of students in the control groups that answered both the pre- and post-test was small what could have affected the final results. For all this, the results have to be interpreted with caution.

7.2.3.2. Analysis of Covariance between the Pre- and Post-test

The results of the t-test indicated how the perceived level of competence of each group varied between the beginning and the end of the course. Nonetheless, these results did not explain how these perceptions varied in relation to the other two groups. For this reason, an analysis of covariance (ANCOVA) was conducted. It was decided to conduct an ANCOVA because the starting point of the three groups (pre-test) appeared not to be the same for any of the competences and requisites analysed (see section 7.2.1. Pre-Test Results for Educational System and School Organisation). Therefore, in order to analyse the effect of the experience on participants' perceived competence level, it was necessary to control for the initial variation between groups. Thus, the results of the pre-test were used as the covariates (CV), the group

was the independent variable (IV) and the perceived level of competence at the end of the course was the dependent variable (DV).

Once it was controlled for the different starting point, the ANCOVA results indicated that there seemed to be only significant differences for project management competence ($F(2,65)=3,610$, $p=.033$, $\eta^2=.100$) and language knowledge ($F(2,65)=5,145$, $p=.008$, $\eta^2=.137$) that could be attributed to the group the students belonged to (Table 164). The results were further analysed through the pairwise comparisons so as to explore between what groups there were significant differences. The pairwise comparisons revealed that there was a significant difference in the perceived project management competence level between the experimental group and the control group 2 ($p=.035$). Thus, the students in the experimental group considered they were significantly more competent ($\bar{X}=7.39$) in terms of project management competence than the control group 2 ($\bar{X}=6.87$). This difference was due to the group the pre-service teachers belonged to. Nevertheless, this effect was small since it accounted for 10% of the variance between the two groups.

Table 164. ANCOVA results for each of the competences and requisites (course 2).

Competences & Requisites	ANCOVA Results
Self-reflection Competence	$F(2,65)=1,991$, $p=.145$, $\eta^2=.058$
Classroom Management Competence	$F(2,65)=1,968$, $p=.148$, $\eta^2=.057$
Research Competence	$F(2,65)=1,524$, $p=.226$, $\eta^2=.045$
Project Competence	$F(2,65)=3,610$, $p=.033$, $\eta^2=.100$
Language knowledge	$F(2,65)=5,145$, $p=.008$, $\eta^2=.137$
Content knowledge	$F(2,65)=,702$, $p=.499$, $\eta^2=.021$

Additionally, the ANCOVA showed that the experience had a positive impact on teacher students' language knowledge since the pairwise comparisons showed significant differences between the experimental group and the control groups 1 ($p=.016$) and 2 ($p=.035$). This effect was moderate since it accounted for almost 14% of the variance between groups.

It is worth highlighting that no significant differences were identified in terms of content knowledge ($F(2,65)=,702$, $p=.499$, $\eta^2=.021$) that could be associated to students' group. This result appears to indicate that the language of instruction (English for the experimental group and Catalan for the control groups) did not have a negative impact on the acquisition of the course's content.

7.2.4. Comparison between Students' Perceptions and Students' Marks

Once the results of the questionnaires for the second course had been analysed, it was necessary to explore whether students' perceptions were aligned to their marks. For this reason,

it was first explored whether there was a significant difference between the marks obtained for each competence and students' self-perceptions. Second, it was analysed whether students' perception correlated with the final marks obtained in *Educational System and School Organisation* course. Finally, it was studied if students' marks showed students' progress in terms of competence development.

As in the previous course, not all marks were normally distributed. Despite trying to normalise the data, it did not get normalised. Therefore, all the tests used were non-parametric.

7.2.4.1. Students' Perceptions in relation to the Marks obtained for each Competence

Following the example of the previous subject, each assessment criterion of the assignments referred to one of the competences that could be assessed through that task. The same competence could be assessed in different assignments. Therefore, there were at least two criteria that measured each competence. In order to explore whether students' perceptions in the experimental group were aligned to the marks they obtained, two steps were done. First, it was explored whether the different marks associated to each competence correlated. After assuring that this correlation existed, a single mean was calculated for each competence in order to ease the analysis. Second, a non-parametric t-test, which is called Wilcoxon Signed Rang test, was run in order to compare whether significant differences between the students' perceptions and their marks existed.

As Table 165 shows, students' perceptions tended to be aligned to the marks they received since most of the comparisons did not reach significance. However, in the case of self-reflection (median=7.67) and research competence (median =7.67), students' perceived that their competence level was significantly higher (median 7.10; median 7.00, respectively) than the marks they got for these competences. Therefore, although students' self-perceived competence level tended to be aligned to the marks they got, it was also true that they overrated their competence level for some domains.

Table 165. Comparison of students' perceptions and their marks for the second course.

Competence & Requisites	Related-Samples Wilcoxon-Test
Self-reflection competence	T=124,000, p<.001
Classroom management competence	T=226,500, p=.059
Research competence	T=146,000, p=.003
Project management competence	T=314,500, p=.558
Language knowledge	T=241,500, p=.151
Content knowledge	T=345,500, p=.617

7.2.4.2. Students' Perceptions in relation to the Final Marks

A subsequent step was to analyse whether students' perceptions were correlated to students' performance. To this end, it was correlated the mean of the self-perceived competence level and the final marks obtained in each assignment and for the whole course. As Table 166 shows, students' perceived competence level did not significantly correlate with the marks they obtained. Only significant moderate correlations were found for language knowledge. The perception of language knowledge correlated positively with the marks obtained in the educational system activity, but, surprisingly, correlated negatively with the final mark of the course.

Table 166. Correlations of students' perceptions and their final marks for course 2.

Competence & Requisites	Educational System Activity	Space Activity	Innovation Project	Portfolio	Final Mark
Self-reflection	$r=.288$, $p=.084$	$r=.096$, $p=.571$	$r=-.153$, $p=.367$	$r=-.005$, $p=.977$	$r=-.201$, $p=.233$
Classroom management	$r=.009$, $p=.958$	$r=-.290$, $p=.082$	$r=-.219$, $p=.194$	$r=.045$, $p=.793$	$r=-.184$, $p=.275$
Research	$r=.071$, $p=.675$	$r=.196$, $p=.245$	$r=-.003$, $p=.985$	$r=.195$, $p=.247$	$r=.025$, $p=.886$
Project management	$r=-.052$, $p=.759$	$r=.113$, $p=.506$	$r=.198$, $p=.241$	$r=.220$, $p=.190$	$r=.150$, $p=.274$
Language knowledge	$r=.376$, $p=.022$	$r=.014$, $p=.936$	$r=.263$, $p=.115$	$r=.174$, $p=.302$	$r=-.364$, $p=.027$
Content knowledge	$r=.112$, $p=.510$	$r=-.074$, $p=.665$	$r=-.214$, $p=.204$	$r=-.004$, $p=.981$	$r=-.075$, $p=.658$

Even though it was not expected that the self-perceived competence and knowledge level correlated with all the final marks, more significant and positive correlations were expected. Nevertheless, it was not expected that all students' perceptions correlated with all the final marks because not all competences were assessed in each task.

The fact that no significant and positive correlations were found could be explained by the fact that the final mark was an average of all criteria. Therefore, it could not be clearly linked the self-perceived competence and knowledge level to the final marks. In fact, as the previous analysis showed, the perceived competence level varied significantly between competences. Consequently, it could be that the final marks did not show these differences.

7.2.4.3. Students' Marks Progress

The general aim of this experience was to evaluate whether the competence-based approach had a positive impact on students competence development. For this reason, it was analysed

whether the marks obtained for each criteria assessing the same competence or knowledge revealed this progress. That is, whether significant differences were found between the marks students' got for each competence and whether these differences could be attributed to time (Table 167).

As for **self-reflection competence**, the Friedman's test pointed a main effect of time for self-reflection competence ($X^2(4)=26,296, p<.001, W=.169$). This effect appeared to be moderate to large since it explained almost 17% of the variance for this competence. The pairwise comparisons with the significance values adjusted to the number of comparisons showed that the significant differences were between a criterion of Educational System Activity (median= 7.75) and the two criteria that assessed self-reflection competence for the portfolio task (median= 7.00; 7.5 respectively) ($p<.001$). In this case, it appears that time had a negative impact on students' self-reflection competence since the educational system activity was submitted at the beginning of the course, whereas the portfolio was submitted at the end of the course. However, as it occurred with the previous course, it could be that the type of task had affected students' performance. That is, it appears that students were more capable to reflect on a topic that on their own learning. Consequently, the marks they got for self-reflection competence were higher when they reflected on content than on their learning process and competence development, what they were asked to do in the portfolio assignment.

For **classroom management competence**, Wilcoxon's test revealed that there was not a significant difference between the two criteria that assessed classroom management competence ($T=200,500, p=.229$). It was not possible to identify a main effect of time for classroom management competence since this competence was specifically analysed in the assignment about Space organisation. Even though classroom management competence could be implicitly involved in the innovation project and the portfolio assignments, it was not directly assessed.

Table 167. Results of Competences development for course 2.

Competence & Requisites	Related-Samples Wilcoxon and Friedman's Tests
Self-reflection competence	$X^2(4)=26,296, p<.001, W=.169$
Classroom management competence	$T=200,500, p=.229$
Research competence	$X^2(2)=20,041, p<.001, W=.257$
Project management competence	$T=240,000, p=.008$
Language knowledge	$X^2(3)=7,288, p=.063, W=.062$
Content knowledge	$X^2(2)=38,259, p<.001, W=.490$

A main effect was found for the three criteria assessing **research competence** ($X^2(2)=20,041$, $p<.001$, $W=.257$). Research competence was assessed in the space activity (median=6.00), innovation project (median=7.75) and portfolio (median=6.5) assignments. The pairwise comparisons showed that the significant differences were between the space activity and the innovation project criteria ($p<.001$), as well as between the innovation and portfolio assignments ($p=.001$). While the significant positive difference between the space and innovation tasks could be attributed to time, that was not the case for the difference between the innovation and portfolio assignments. These two last tasks were submitted at the end of the course. The reason could be the type of demands of each task. While the space and innovation project assessed research competence in practice, the portfolio task asked the students to evidence their competence development. Even though students' portfolios had improved from one course to another, students still had difficulties to reflect on their competence development and show their progress.

A significant difference was found between the two criteria assessing **project management competence** ($T=240,000$, $p=.008$). This competence was mainly assessed through the innovation project. Therefore, the significant difference did not indicate an effect of time, but a significant difference in terms of dimension assessed. Apparently, students were better at suggesting organisational decisions that could improve the innovation based on the results obtained and the theory (criterion 2) (median =7.50) than identifying the implications and consequences the organisational decisions had on the teaching and learning process (criterion 1) (median =7.00).

The Friedman's test did not indicate a main effect of time for **language knowledge** ($X^2(3)=7,288$, $p=.063$, $W=.062$). Therefore, according to these results, participating in a learning experience that was taught in an additional language did not have a significant impact on students' language knowledge. Marks might not indicate a language improvement because learning an additional language is a process that takes time and, therefore, it is needed a continuous exposure for benefits to flourish.

In terms of **content knowledge**, the results indicate that there was a main effect of time ($X^2(2)=38,259$, $p<.001$, $W=.490$). The pairwise comparisons showed a significant difference between the content marks for space task (median=6.00) and Educational System task (median=7.00) ($p=.014$) and innovation project assignment (median=8.00) ($p<.001$), as well as between educational system and innovation project assignments ($p=.005$). Even though time had a large effect on content knowledge since it explained 50% of the variance of students' marks, it is not clear enough whether there was an effect of time. The educational system

activity was submitted at the beginning of the course, before the space and the innovation project. However, the space task is the one where the content knowledge got the lower score. In all three assignments, it was assessed whether all decisions and reflections were sustained with the course' content. It is not considered that the differences are due to the task itself. Probably, the differences are due to the specific knowledge of each topic. However, it is worth highlighting that the innovation project is an assignment that implied integrating a major part of the content worked in the course. Therefore, it is positive that students obtained a higher mark in this assignment and develop their competences.

Finally, it was explored whether students' final marks improved over time. Friedman's test revealed that there was not a main effect of time over students' final marks ($\chi^2(4)=5,071$, $p=.280$, $W=.033$). The reason of this result could be that different assignments measured different competences and domains. Another possible reason is that for a significant improvement, the experience should be longer than three months so that students could have enough time to improve.

In short, the results are inconclusive since it is not completely clear that time had always a positive effect for competence development. Probably, it would have been necessary that almost all competences and requisites had been assessed in all assignments so that a broader perspective on competence development could have been obtained.

7.2.5. Results' Summary

The objective of the *Self-Perceived Competence Level Questionnaire* was to explore how the designed and piloted experience affected pre-service teachers' perceived competence level. To this end, the questionnaire was administered at the beginning of *Educational System and School Organisation* course as a pre-test to both the experimental and control groups. The purpose was to know what the starting point of the three groups was so that it could be later analysed whether teacher students' perceived competence level was different and if this difference could be attributed to the competence-based approach or it was the result of being involved in a learning experience.

Pre-service teachers considered that **their competence level varied depending on the analysed items** and that their competence level was not the same for all domains. These differences could be attributed to the diverse learning experiences students' had been immersed, but also to the fact that being competent is not dichotomous (you are or you are not competent), but a current state along a continuum. As the results of the previous course indicated, **teacher students did not perceive they had developed all the competences to the same extent**. These initial

differences could be the result of not having worked a certain competence yet. This was the case of Project Management Competence which was not worked in any of first year subjects. Therefore, it is understandable that all three groups considered that this was the competence they had significantly less developed at the beginning of the experience. However, it is surprising that the experimental group believed that classroom management was one of the competences less developed since it was worked in the previous course involved in this experience. This perception may be the result of their awareness of what this competence implies and what they really know.

The results of the pre-test also indicated that **the starting point of the three groups was significantly different** for classroom management ($F(2,102)= 3.100, p=.049, \eta^2=.89$), research ($F(2,102)= 3,639, p=.030, \eta^2=.87$), and project management ($F(2,102)= 3.573, p=.032, \eta^2=.87$) competences. The significant differences were between the control group 1 and 2 ($p=.049$) for research competence, and between the experimental and control group 1 ($p=.026$) for project management competence. On the other hand, there was an effect of group for language knowledge requisite ($F(2,102)= 11.757, p<.001, \eta^2=.63$). In this case, it was the experimental group who perceived that their knowledge of the additional language was significantly higher than the one perceived by the control group 1 ($p=.024$) and 2 ($p<.001$). The fact that participants in the experimental group considered they had higher language knowledge than the control groups could be the result of learning contents through an additional language.

As for the **post-test** findings, they seemed to confirm that teacher students' perceived that their competence level varied depending on the analysed competence and, more specifically, in terms of the analysed dimension per each competence, as the results showed for the experimental group ($F(5,36)=5507,707, p<.001, \eta^2=.994$), the control group 1 ($F(6,28)=1481.584, p<.001, \eta^2=.981$) and the control group 2 ($F(5,23)=1009,464, p<.001, \eta^2=.978$). However, the ANOVA results indicated that **the perceived level of competence was similar for the three groups at the end of the experience**. The only significant difference was for language knowledge ($F(2,87)=215,890, p<.001, \eta^2=.36$). According to these results, 36% of the variance could be explained by the group the participants belonged to.

However, the main aim of this analysis was to explore the effect of the experience on pre-service teachers perceived competence level. To this end, it was necessary to explore whether changes in perception were present between the pre- and post-test. The results of the t-test, showed that the perceptions of the experimental group had significantly changed since most comparisons were significant at the level of $p<.001$. Nevertheless these results did not indicated

whether the changes were due to the piloted experience because differences in perception were also found for the control groups. For this reason, several ANCOVAs were run so as to control for the initial variations between the groups. The results revealed that there were significant differences between the groups for project management competence ($F(2,65)=3,610, p=.033, \eta^2=.100$) and language knowledge ($F(2,65)=5,145, p=.008, \eta^2=.137$). These results indicated that **the experience had a positive impact for pre-service teachers in the experimental group for project management competence and language knowledge without the detriment of content knowledge** ($F(2,65)=,702, p=.499, \eta^2=.021$).

Nevertheless, major differences were expected between the groups in terms of competence development. The fact that no other differences were identified could be explained by two reasons. First, each subject can make a contribution to competences' development, but it is the thoughtful planning of competence development along the degree what really contributes to the acquisition of competences. Additionally, competences are complex constructs and their development and improvement need continuous work towards this end. Secondly, only 47,62% ($n=20$) of the students in the control group 1 and 35,71% ($n=15$) of the students in the control group 2 answered both the pre- and post-tests. Therefore, it could be that if the size of the sample had been bigger, different results would have been obtained.

The comparison between students' perceptions and their results in *Educational System and School Organisation* course shed some light and shadows. On the one hand, **students' perceptions not always were aligned with the marks they got**, indicating that they were partially aware of the progress they had made during the semester.

On the other hand, despite finding some positive effects of time on competence and requisites development, especially for research and content knowledge, in general, it was not that clear this progress. For some competences, the progress could not be measured since that competence was explicitly assessed in only one assignment. This was the case of classroom management and project management. On the contrary, no significant effect of time was found for language knowledge and the final marks. It could be that more time was needed to improve language proficiency or that the planned activities did not completely foster language knowledge development.

Overall, based on the results obtained, it can be conclude that the piloted experience in the double degree of infant and primary education had a positive impact on students' learning. This positive impact was clear for language and content knowledge, as well as project management

competence. However, for the experience to make a positive contribution, it seems that it should be sustained over time so that CLIL teachers' competences can be developed.

7.3. Longitudinal Analysis of Competences' Development

7.3.1. Analysis of Students' Perceptions over time

Once the experience developed in each course had been analysed, it was necessary to explore whether the sustained immersion in a competence-based approach had a positive impact on students' perceived competence level. For this reason, the aim was to analyse how the perceived competence level had varied for those domains that were assessed in courses 1 and 2. These competences were: Self-reflection competence and classroom management competence. Additionally, two requisites were assessed in both courses: language and content knowledge.

To this end, it was explored whether the perceived level of competence and knowledge had varied from the beginning of the experience (pre-test of *Planning, Design and Assessment* course) and the post-test of the second course (*Educational System and School Organisation*). In addition, the results of the post-test for *Planning, Design and Assessment* course and the pre-test for *Educational System and School Organisation* were also considered so as to explore at what point teacher students participating in this experience perceived their level of competence and knowledge had changed.

Table 168 shows the means and standard deviations for self-reflection and classroom management competences, as well as for language and content knowledge. Interestingly, the perceived competence and knowledge level was lower at the beginning of the second course than it was at the end of the first course. In some cases, the values got at the end of the second course were similar or even lower than those obtained at the end of the first subject. Language knowledge was the only domain in which the perceived level of knowledge increased over time. *Planning, Design and Assessment of Learning and Teaching Activity* post-tests were administered right after finishing the first course, whereas the pre-test of *Educational System and School Organisation* was administered four months after the post-test of the first course. Therefore, it could be that the immediate and the deferred competence perception varied. That is, students could feel more competent just after finishing the course because they had just been working the topics related to these domains. However, after four months and the summer break, teacher students could assess their competence level with perspective. However, in order to explore whether these differences were significant and the experience had a positive impact on students' competence development a within-subjects ANOVA was conducted (Table 169).

Table 168. Means and standard deviations of the competences and requisites assessed over time⁴³.

Competences & Requisites	Planning, Design and Assessment of Learning and Teaching activity				Educational System and School Organisation			
	Pre-test		Post-test		Pre-test		Post-test	
	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD	\bar{X}	SD
Self-reflection competence	7.32	.202	7.97	.159	6.63	.242	7.81	.153
Classroom Management	6.91	.196	7.73	.159	6.04	.224	7.59	.140
Language Knowledge	6.55	.327	7.70	1.80	7.10	.225	8.01	.218
Content Knowledge	6.43	1.40	7.60	1.00	6.30	1.48	7.53	.93

The results of within-subjects ANOVA for **self-reflection competence** indicated that there was a significant difference between the perception of pre-service teachers in the experimental group over time ($F(3)=16,306$, $p<.001$, $\eta^2=.360$). Surprisingly, the pairwise comparisons indicated that the comparison between the starting point of students in course one ($\bar{X}=7.32$) and their perceived level of competence at the end of course 2 ($\bar{X}=7.81$), although close to significance, it was not ($p=.073$). Consequently, the results seemed to indicate that the sustained work on self-reflection competence during two courses did not prove to have a significant improvement on students' perceived competence level. However, significant differences could be found from the starting point ($\bar{X}=7.32$) and the perceived level at the end ($\bar{X}=7.97$) of course 1 ($p=.027$) and between the end of the first course ($\bar{X}=7.97$) and the beginning ($\bar{X}=6.63$) of the second course ($p<.001$), as well as between the beginning ($\bar{X}=6.63$) and the end ($\bar{X}=7.81$) of the second course ($p<.001$).

A possible explanation for this result is that, even though the items assessing self-reflection competence were the same for both courses, due to the characteristics of each course, the focus was different. That is, while the items referred to self-reflection on the own teaching practice in the first subject, in the second course, self-reflection items focused on the educational system, the school as an organisation and their role in the organisation. Therefore, this different focus could explain why these results were obtained. A second possible reason is that students overrated their competence level at the beginning of the first course. It could be that students did not completely represent what being competent in terms of self-reflection competence meant for a teacher. However, the pairwise comparison between the perceived competence

⁴³ The means and standard deviations presented in this table are based on those students in the experimental group that answered the four questionnaires ($n=29$).

level at the end of the first and second course was $p=1.00$. Therefore, this result could indicate that teacher students reached the same self-reflection level at the end of both courses. In other words, pre-service teachers participating in this experience considered that they were equally competent in terms of reflecting on their own teaching practice as well as on their role in the organisation, the school organisation and the educational system.

As for **Classroom Management competence**, results of the within-subjects ANOVA indicated that there was a main effect of time ($F(3)=20,809, p<.001, \eta^2=.418$) and that this effect was large since it explained almost 42% of the variance of students' perceptions over time. That is, student teachers in the experimental group perceived that their classroom management level varied significantly over time. The pairwise comparisons with the significance values adjusted to the number of comparisons indicated that the significant differences were found between time one (pre-test first course) ($\bar{x}=6.91$) and the post-test ($\bar{x}=7.73$) of the first course ($p=.017$), the pre-test ($\bar{x}=6.04$) of the second course ($p=.017$) and the post-test ($\bar{x}=7.59$) of the second course ($p=.019$). Interestingly, as it occurred with self-reflection competence, students perceived that their classroom management competence level was significantly lower at the beginning of the second course ($\bar{x}=6.04$) than at the end ($\bar{x}=7.73$) of the first course ($p<.001$). The perceived competence level increased during the second course. The level reached at the end of the first and second course appeared to be the same ($p=1.00$).

Table 169. Results of the within-subjects ANOVA for the competences and requisites measured over time.

Competences & Requisites	ANOVA Results
Self-reflection competence	$F(3)=16,306, p<.001, \eta^2=.360$
Classroom Management competence	$F(3)=20,809, p<.001, \eta^2=.418$
Language knowledge	$F(3)=16,890, p<.001, \eta^2=.368$
Content knowledge.	$F(3)=12,767, p<.001, \eta^2=.306$

Even though the items assessing classroom management competence were the same for both courses, the perception reached at the end of the first course was not maintained at the beginning of the second one. At the end of both courses, students appeared to have achieved the same level, although it was expected that the perceived level of competence would have been higher at the end of the second course in comparison to the first. A possible explanation is that the sustained evaluation and reflection on the competence level done through the portfolio made students become more aware of their knowledge and abilities and, therefore, their ratings were more accurate. Another possible explanation is that the isolated experience of a

competence-based approach in two courses did not make a sufficient contribution to competence development creating a ceiling effect.

Regarding **language knowledge**, the within-subjects ANOVA revealed a main effect of time ($F(3)=16,890$, $p<.001$, $\eta^2=.368$). This result seemed to indicate that the sustained teaching and learning in a foreign language appeared to have a positive effect on students' perceived language knowledge. The pairwise comparisons indicated that there was a significant difference between the pre-test ($\bar{X}=6.55$) and the post-test ($\bar{X}=7.70$) in course one ($p=.002$) and the pre-test ($\bar{X}=7.10$) and post-test ($\bar{X}=8.01$) of course 2 ($p<.001$). However, as it occurred with self-reflection and classroom management competences, no significant differences were found between pre-test one ($\bar{X}=6.55$) and pre-test two ($\bar{X}=7.10$) ($p=.257$). The perceived level of language knowledge between the end of course one ($\bar{X}=7.70$) and the beginning of course two ($\bar{X}=7.10$) was almost significant ($p=.053$). Again, the perceived level of competence at the end of the first ($\bar{X}=7.70$) and the second course ($\bar{X}=8.01$) was not significant ($p=.596$), although it appeared not to be the same ($p=1.00$), as it happened with the previous two competences. Even though the perceived level of language knowledge increased over time, the sustained teaching and learning in an additional language seemed not to have the expected positive impact.

Although language knowledge was the domain in which students' perceptions change the least after the summer break, students still perceived that their language knowledge was lower at the beginning of course 2 than at the end of course 1. Additionally, there was a massive improvement in terms of language knowledge between the beginning and the end of this experience. However, it is not clearly understood why students' perceived language level decreased in the deferred evaluation.

In terms of **content knowledge**, this domain was measured for both courses. Nevertheless, the content varied in both of them: while the first course was focused on curriculum and classroom planning, the second course was focused on educational system and school organisation. Therefore, possible differences in students' perceptions could be attributed to this fact. The within-subjects ANOVA indicated that there was a main effect of time ($F(3)=12,767$, $p<.001$, $\eta^2=.306$) and that this effect was large since it explained almost 31% of the variance of teacher students' perceptions. The pairwise comparisons confirmed the results obtained for the other competences and language knowledge: there was a significant improvement between the beginning of the experience ($\bar{X}=6.43$) and the end of it ($\bar{X}=7.53$) ($p=.001$) in terms of content knowledge. These differences were also found between the beginning of each course and the end of course 1 ($p<.001$) and course 2 ($p=.001$). However, the perceived level of knowledge

appeared to be the same at the beginning of the first and second course ($p=1.00$), as well as at the end of course one and two ($p=1.00$).

This finding was less surprising since the content of both courses was completely different. Additionally, it was the first time that this group started studying the curriculum and classroom planning, as well as school organisation and educational system. Therefore, it is normal that their starting point in both courses was similar. However, both courses appeared to contribute to knowledge acquisition.

7.3.2. Analysis of Students' Marks over time

It was analysed whether students' marks improved over time as a consequence of the continuous experience in a competence-based approach. To this end, it was compared the means of those competences that had been worked during both courses, self-reflection and classroom management, as well as the two requisites of language and content knowledge. For this reason, several related-samples Wilcoxon's tests were run (Table 170).

The findings revealed that there was a significant difference for **self-reflection** marks for courses 1 and 2 ($T=107,500$, $p<.001$). According to test results, students got higher marks for self-reflection in course 1 (median=7.67) than in course 2 (median=7.10). This difference could be attributed to two reasons. First, as it has already been pointed out, in course 1, self-reflection focus was on the own teaching practice in the classroom, whereas in course 2 the focus was on the organisation. Therefore, it could be that students were better at self-reflecting on the teaching practice than on the role of the organisation on the teaching and learning process, as well as their role in the organisation. Second, although the teacher and the students were the same in both courses, it could be that the teacher rating was more demanding in the second course due to increasing complexity.

Table 170. Results of the comparison of the marks over time.

Competences & Requisites	Related-Samples Wilcoxon's Test
Self-reflection Competence	$T=107,500$, $p<.001$
Classroom Management Competence	$T=257,500$, $p=.101$
Language knowledge	$T=234,000$, $p=.048$
Content knowledge	$T=217,500$, $p=.110$

In terms of **classroom management competence**, it appeared that there were no significant differences between the marks for course 1 (median=7.38) and 2 (median=7,00) ($T=257,500$, $p=.101$). However, again the results obtained in the first course were higher than those obtain in course 2. As for, **language knowledge**, there were significant differences between the marks of course 1 (median = 7.83) and 2 (median =7.63) ($T=234,000$, $p=.048$). In the same line, students'

marks for **content knowledge** were higher for the first course (median=7.75) than in the second one (median 7.50). However this difference was not significant ($T=217,500$, $p=.110$).

In general, the results seemed to indicate that students' marks in the first course were higher than those obtained in the second one. However, these differences were not always significant.

7.3.3. Results' Summary

In short, the longitudinal analysis of students' perceptions for self-reflection, classroom management, language knowledge and content knowledge revealed that: first, students' perceptions in terms of competence level and knowledge improved over time. However, **this improvement appeared to occur within the same course rather than between courses**. Second, students' perceptions at the beginning of the second course were equal, or even lower, than at the beginning of course one. Therefore, the delayed evaluation may indicate that students' perceptions vary depending on the moment they rate their perceptions. Third, **the level attained at the end of the second course appeared to be the same as the one reached at the end of the first course**. A possible explanation could be that students took into account their starting point and evaluate their progress based on that.

It was expected that students' perceived competence level increased over time as a result of the sustained experience in a competence-based approach. Overall, it remains unclear why students' perceptions in terms of competence varied so much after a four-month break. It could be that after finishing the course students' perceived they had mastered some contents and competences, but, after a while, they were not so confident on the progress made. Another explanation could be that, at the beginning of course one, students overrated their competence level. A third explanation was that the teaching and learning experience offered was not that deep and profound as expected and, therefore, after a while the advances made disappeared. Another possible reason is that competences' development needs time and continuous practice. Consequently, the isolated experience of a competence-based approach in a course could not make a massive and sustained contribution to competences' development.

Therefore, it seems that competence-based approach did have a positive impact on competences development, as well as CLIL instruction had a positive impact on language knowledge. Nevertheless, an isolated experience may not develop the full potential of these two approaches.

CONCLUSION

Chapter 8. Conclusion

This research aimed to **identify the pedagogical and organisational training needs of Catalan primary teachers for CLIL implementation and the school-based organisational conditions that favour this implementation**. CLIL has been defined in this doctoral thesis as an educational approach where some curricular content is taught integratively with an additional language to students participating in some form of mainstream education aiming at the acquisition of both content and foreign language (definition adapted from Hüttner & Smit, 2014).

Table 171. *Alignment between the specific objectives and the hypotheses(duplicate of table 1).*

General objective: To identify the didactic-pedagogical and organisational training needs of teachers from Catalan Primary schools relative to CLIL implementation and the school's organisational conditions that favour this implementation.				
Block	Cross-curricular objective	Specific Objectives	Hypotheses	
Non-Experimental studies	SO4: To analyse the concurrence between teachers and school management teams' perceptions with the inspectors, CLIL coordinators from the Education Department and CLIL experts' opinions.	SO1: To explore Catalan teachers and school management teams' perceived pedagogical and organisational training needs.	H1: CLIL teachers' profile varies depending on CLIL conceptualisation and the context.	
			H2: Teachers and school management teams perceive that they do not have enough pedagogical CLIL training to confront the demands of this approach.	
			H3: Teachers and school management teams believe that they do not have enough organisational training to implement CLIL.	
	H9: Teachers and school management teams concur in the key competences and knowledge		SO2: To know the competences and training requisites of CLIL teachers and school management teams.	H4: Language knowledge, content knowledge and methodological competence are considered essential requisites for CLIL teachers and, consequently, training has to address these requisites.
				H5: Leadership is a key competence of school management teams for CLIL implementation.
				H6: The most effective training modality for CLIL is that one that addresses teachers' training needs depending on the characteristics of the context.
		SO3: To identify the organisational conditions of primary schools that	H7: The reason why primary schools decide to start a CLIL project and how CLIL is conceptualised determine how CLIL is implemented.	

	for CLIL, but their perceptions in terms of current training needs vary.	favour the implementation and sustainability of CLIL projects.	H8: CLIL implementation and sustainability require some organisational conditions being teacher collaboration one of the most prominent and the shortage of qualified teachers for CLIL, its main barrier.
Quasi- Experimental Study		SO5: To design, implement and evaluate an initial CLIL teacher education proposal for primary teachers from the competences and training requisites identified.	H10: The design and the implementation of a competence-based training proposal for CLIL teaching and learning and CLIL implementation have a positive impact on the development of student teachers' CLIL competences.

This chapter summarises and discusses the results obtained in this PhD with those of previous research. The discussion will revolve around the five specific objectives and the hypotheses established for this doctoral thesis (Table 171). Additionally, the limitations of this research will be presented, as well as the future lines of research. All in all, this chapter intends to synthesis the main contributions of this study to CLIL's research field.

Due to its transversal nature, the discussion of the results related to the specific objective 4, which is *to analyse the concurrence between teachers and school management teams' perceptions with the inspectors, CLIL coordinators from the Education Department and CLIL experts' opinions*, will be included across the specific objectives 1 to 3. Therefore, while discussing the results, groups' perceptions will be compared and contrasted.

8.1. Discussion

SO1: To explore Catalan teachers and school management teams' perceived pedagogical and organisational training needs.

H1: CLIL teachers' profile varies depending on CLIL conceptualisation and the context.

The first hypothesis was analysed in studies 3 and 4 through school management teams and CLIL experts' perceptions. Participants' perceptions were obtained through close-ended questionnaires and semi-structured interviews.

As noted in previous studies, **CLIL teacher's profile is not clearly defined** in terms of the training and requisites teachers should have (Eurydice, 2017a), as well as for the teacher that should be in charge of CLIL realisation in the classroom (Alejo & Piquer, 2010; McDougald, 2015; Pavón Vázquez & Ellison, 2013; Wolff, 2002). According to the consulted school leaders, CLIL teachers

tend to be practitioners with a double specialisation (\bar{x} =4.15 out of 6), language teachers (\bar{x} =3.54) or the result of content and language teachers' team-teaching (\bar{x} =2.94). Pavesi et al. (2001) already found that CLIL teachers at primary level tended to be foreign language and content teachers' specialists, double specialists or team-teaching. Note that school management teams use the term 'double specialist' to refer to primary teachers that have a specialisation in a foreign language; that is, teachers that have received a general training as primary teachers and have specialised in an additional language. Thus, strictly speaking, foreign language primary teachers do not have a double specialisation in Catalonia. Indeed, a recent report revealed that school leaders from Catalan schools complained about the scarce amount of teachers that have a cross-curricular profile or enough English knowledge to teach a content subjects in an additional language (AQU, 2015). To this, it has to be added that it is difficult for a single teacher to have an equal domain of content and the target language (Kong, 2009) when the acquisition of a double specialisation is not encouraged by the Educational Department. On the other hand, experts believe that **CLIL teachers' profile may vary depending on the educational level**. That is, while language teachers should be in charge of CLIL at the primary level (Pavesi et al., 2001), content teachers with a good language proficiency should be the CLIL teacher at the secondary level (Barranco Izquierdo et al., 2016).

However, **the current CLIL teacher is not always the desired one**. Ideally, school management teams would prefer that CLIL classroom implementation would be the result of the close collaboration of content and language teachers (team-teaching) (\bar{x} =4.56 out of 6) or a double specialist (\bar{x} =4.19). These profiles could help overcome the current polarisation towards content or language and foster integration (Coyle, 2007; Hoare, 2004; Kong, 2009; Pessoa et al., 2007). CLIL experts agree with the ideal CLIL teacher described by school management teams. However, despite being strongly advocated (Nikula, Dalton-Puffer, & Llinares, 2013), CLIL experts believe that these profiles are unrealistic considering the available human and material resources (Coonan, 2003). In fact, according to the school leaders, what appears to determine who the CLIL teacher will be is teachers' qualification (51.7%) and the feasibility of each teacher (38.5%) to integrate content and language (30.8%). Surprisingly, the selection of the CLIL teacher hardly ever is based on previous research findings or the experience of other schools. Thus, apparently, **the systemic and institutional factors are what determine who the CLIL teacher is**.

Even though school management teams and CLIL experts conceptualised CLIL from three different perspectives (integration, methodology and language) (Hüttner & Smit, 2014; Jäppinen, 2005; Mehisto, Marsh, & Frigols-Martín, 2008; Pérez-Cañado, 2016), it is not possible to

establish a clear relationship between the selected teachers' profile and the conceptualisation of CLIL. It would have been expected that those participants that clearly defined CLIL as an integrative approach would have advocated some form of teacher qualification that would guarantee this integration. Nevertheless, this direct link was not generally observed. It seems contradictory to defend that content teachers should be in charge of CLIL realisation not to compromise content learning at the same time that all the emphasis is put on language learning. A possible explanation is that integration has not permeated all levels (de Graaff, 2016) as a consequence of the long tradition of knowledge compartmentalisation. However, CLIL teaching seems to be successful when the borders between disciplines are open and practices are shared (Wiesemes, 2009). Therefore, the challenge may not only be to qualify teachers for CLIL (Eurydice, 2017a), but to understand that CLIL, as any other approach that encourages integration, implies a school-wide reconceptualisation of the curriculum and the compartmentalisation of knowledge.

In short, the findings suggest that CLIL teachers' profile strongly depends on contextual factors such as available resources (human, training and funding) or the educational stage (primary or secondary level). Consequently, CLIL teachers do not always have the profile school leaders would like. Additionally, systemic limitations, such as teacher specialisation or insufficient resources, make difficult some forms of team-teaching or having double specialists. As a result, CLIL teachers tend to be foreign language specialists at the primary level. However, it could be that CLIL teacher's profile is strongly linked to identifying CLIL to one person (the CLIL teacher) and one subject (content subject) instead of understanding CLIL as a school's project. Understanding CLIL as a school's project could favour the coordination between language and content teachers. Therefore, although the definition of CLIL teachers' profile seems not to be related to how CLIL is defined, it could be that conceptualising CLIL as a school's project could affect the description of teachers' profile. That is, the dichotomy content-language teacher could be overcome and there could be a move towards a greater collaboration between teachers since the project would not be seen as the responsibility of a single teacher.

H2: Teachers and school management teams perceive that they do not have enough pedagogical CLIL training to confront the demands of this approach.

The pedagogical training needs of teachers and school management teams were explored in studies 1 to 4 through pre-service and in-service teachers, school management teams, teacher trainers, inspectors, CLIL coordinators from the Educational Department and CLIL experts' perceptions. The data was collected through questionnaires, semi-structured interviews and a

narrative review. The results obtained in these four studies will be compared and discussed in order to address hypothesis 9.

The report *key data on teaching language at School in Europe* (Eurydice, 2017a) claims that the main threat for CLIL sustainability is the shortage of trained teacher for CLIL. Previous studies have already analysed CLIL teachers' perceived training needs. Usually, the focus has been on in-service teachers who may have received a short training for CLIL (Eurydice, 2006). However, to the best of our knowledge, previous research has not compared the perceptions of different stakeholders regarding CLIL teachers' training needs. Likewise, there is a shortage of research that studies school management teams' training needs (Doiz & Lasagabaster, 2017; Laorden & Peñafiel, 2010).

The **pedagogical training needs identified for CLIL teachers** are relative to language and content knowledge, CLIL theoretical principles, CLIL conceptualisation, methodology, classroom management, materials development and assessment. Even though not all these training needs are reported in all studies or by all participants, language and methodology are always reported, followed by content knowledge. A possible explanation is that these three areas are actually essential domains for CLIL teachers (Hillyard, 2011; Pistorio, 2009). Despite being regarded as key domains, considerable training needs have been identified for language and methodology over time (Durán-Martínez & Beltrán-Llevador, 2017; Pena Díaz et al., 2005; Pérez-Cañado, 2016c).

With regard to **language**, all participants concur in identifying training needs for language proficiency, although teacher trainers and in-service teachers with experience also focus the attention on the insufficient mastery of **pedagogical language knowledge**. Traditionally, studies analysing CLIL teachers' training needs have focused on language knowledge (Aiello et al., 2017; Durán-Martínez et al., 2016; Milla Lara & Casas Pedrosa, 2018; Moate, 2011c; Morton, 2016; Pena-Díaz & Porto-Requejo, 2008). However, some theoretical papers note that mastering the language is not enough and that teachers also lack pedagogical language knowledge (Coonan, 2011; Durán-Martínez et al., 2016; Enever, 2014; Martín del Pozo, 2017; Morton, 2016). These studies indicate that it is teachers' communicative competence what can lead to students' improvement (Nikula et al., 2013; Nikula & Mård-Miettinen, 2014). Regarding **pedagogical language knowledge**, in line with Vollmer (2008), teacher trainers believe that CLIL teachers do not know how to scaffold language or to identify content-specific language. These needs could be explained by the scarce attention pedagogical language knowledge has received at both the training and research level (García-Mayo & Hidalgo, 2017; Jiménez-Catalán & Agustín-Llach,

2017). In the same line, in-service teachers with experience believe that pedagogical language knowledge is more necessary than the simple mastery of the target language, as previous studies suggest (Durán-Martínez et al., 2016). However, this need may not be specific of CLIL teachers since any teacher should know what the content-specific and content-related language of their subjects is and how to work it (Cummins, 1999). Nevertheless, participants' attention tends to be on language proficiency rather than knowing how to teach the language.

Training needs relative to **content knowledge** are also mentioned, specially by pre-service foreign language secondary teachers (Figure 24) and CLIL experts (Figure 38). This training need could be specific of language teachers that are in charge of CLIL realisation in the classroom since they may not have enough knowledge to teach contents from a curricular subject. Despite being regarded as one of the three key elements of CLIL (Hillyard, 2011; Pistorio, 2009), content knowledge is not the training need referred the most and it is even not mention by in-service teachers at all. Indeed, this finding is consistent with previous studies analysing teachers' training needs since the focus tends to be on language rather than on content (Durán-Martínez et al., 2016; McDougald, 2015; Piquer & Lorenzo, 2015). A possible explanation is that CLIL is not conceptualised as an integrative approach, but as an approach to learn a second language (Kiely, 2011). Another reason is that some participants think that CLIL teachers are content-trained teachers and, therefore, they do not have training needs in this respect. Interestingly, pre-service teachers and CLIL experts do not tend to demand more pedagogical content knowledge, as it happens with language, but understanding and mastering the content they have to teach (McDougald, 2015). Nevertheless, the training needs for language and content knowledge may vary depending on teacher's profile (Durán-Martínez et al., 2016; Silver, 2008).

Methodology is by far the training need reported the most. The findings suggest that CLIL teachers struggle to find the methodological strategies and to adapt their teaching practices when students do not master the language. Consequently, students' content and language learning could be compromised (Fernández-Sanjurjo et al., 2017). Concretely, participants tend to express methodological needs in terms of insufficient knowledge and experience on student-centred methodologies and the integration of content and language (Aiello et al., 2015; Durán-Martínez & Beltrán-Llevador, 2017; Mehisto & Asser, 2007; Morton, 2016; Pérez-Cañado, 2014; Piquer & Lorenzo, 2015). However, participants do not tend to mention the methodological strategies that are considered characteristic of CLIL teaching (see Table 4).

Despite not being said, the root of the problem appears to be the incomplete understanding of what **integration** is and what its implications are (Cabezuelo Gutierrez & Fernández Fernández,

2014; Koopman et al., 2014; Marsh et al., 2010; Wiesemes, 2009). However, the problem could also be that teachers do not know how to materialise this integration (Truscott de Mejía, 2016). But, surprisingly, training needs relative to conceptualising integration are namely identified for school management teams in this study. Teacher trainers also believe that more attentions should be given to understand the CLIL approach. However, inspectors and CLIL coordinators consider that the focus should be on methodologies and teaching strategies for CLIL. To these discrepancies, it has to be added that integration has been understood in a flexible way (de Graaff, 2016) and the way CLIL has been implemented varies from context to context (Coyle, Hood, & Marsh, 2010; Sylvén, 2013). Therefore, the methodological needs could vary depending on how CLIL is understood and implemented. Related to conceptualising integration, experts believe that CLIL teachers have important training needs relative to knowing how to integrate the curriculum (Beane, 2005; Pérez-Gómez, 2012), in general, and, more specifically, how to integrate the school's languages curriculum (Beacco, Fleming, Goullier, Thürmann, & Vollmer, 2015; Cavalli et al., 2009). Additionally, teacher education and, more specifically, initial teacher education is not offering a proper example of how this integration should be done so that pre-service teachers can transfer these practices to primary education (Conner & Sliwka, 2014). Therefore, apparently, training needs relative to curriculum integration are not specific of CLIL teachers. However, CLIL makes curricular integration needs more salient because this approach challenges curricular fragmentation.

Training needs relative to **classroom management** are also identified by all participants. The insufficient knowledge of student-centred methodologies may also impact negatively on classroom management. Interestingly, in-service CLIL teachers with experience do not perceive that they have classroom management training needs, probably because of their experience. Another possibility is that novice teachers are more focused on classroom management rather than on students' learning (Huberman, 1988). According to the results, teachers face difficulties to control the pace of the classroom but, above all, to make sure that anyone is left behind (Moate, 2011; Pena-Díaz & Porto-Requejo, 2008; Pladevall-Ballester, 2015; Salaberri-Ramiro, 2010; Soler et al., 2017). The findings suggest that some CLIL teachers may not know how to motivate students and make them actively participate in the classroom when they do not master the language. Despite the relevance of classroom management, it is not usually reported as an area where further training is needed. Nevertheless, AQU (2015) and Freixa (2017) found that classroom management is one of the domains where Catalan novice teachers present more training needs. The results of this PhD may not suggest that CLIL teachers do not face difficulties while managing a classroom in a foreign language, but maybe practitioners encompass these

needs within the label 'methodology'. In fact, as noted in the results section, the term methodology seems to be used as an umbrella term that encompasses from the specific teaching methods to the pedagogical principles that orientate the teaching practice. Another possible explanation is that classroom management is understood only as the ability to manage students' behaviour (LePage et al., 2005). However, it is worth noting that not reporting a specific training need does not mean that teachers do not have needs relative to that domain. It could be that practitioners do not think that this need is urgent or they could not be aware of having this need (Montero, 1986). Interestingly, Marcelo et al. (2011) note that Spanish teachers tend to perceive they are not sufficiently qualified, independently of the training received.

Stakeholders also perceive that CLIL teachers have important training needs relative to **materials and learning resources development** which seem to be constant over time, as results from study 2 indicate. For instance, school management teams believe that teachers have moderate training needs in terms of material development ($\bar{x}=3.83$ out of 6). Concretely, teachers appear to lack the sufficient skills to adapt already existing materials to the educational purposes they aim to serve. For instance, teachers may not have the sufficient ability to adjust a resource targeted to native speakers for students that do not master the language. Additionally, teachers need further training on materials development not only to adapt the already existing resources, but to create them (Pappa et al., 2017). Previous studies have also noted that there is a scarcity of learning resources (Navés, 2009; Oakes, 2002) and the existing materials may not always meet the educational purposes (Banegas, 2012a; Durán-Martínez & Beltrán-Llevador, 2017; Megías Rosa, 2012) and may compromise language or content learning (Langé, 2007). This may explain why training needs relative to materials development are found. However, experience seems not to reduce the training needs relative to materials development because pre-service and in-service teachers with and without experience report this need. Interestingly, teacher trainers, CLIL coordinators and Inspectors are aware of this need, but it seems that no specific training is provided in this line or the training provided has scarce impact on teachers' material development competence (Bovellan, 2014). Even though CLIL teachers have difficulties to adapt and create materials that integrate both content and language, it also seems that there is an excessive trust on materials, as they were a panacea. However, an overreliance on materials could prevent teachers to be reflective practitioners.

Assessment is another pedagogical training need identified. The integration of content and language implies that these two areas, which were traditionally taught separately, have to be assessed together (Massler, Stotz, & Queisser, 2014). This integration makes that school

management teams believe that assessment is CLIL teachers' main training need (\bar{x} =4.63 out of 6), in front of methodology (\bar{x} =4.49) and language knowledge (\bar{x} =4.25). Surprisingly, neither pre-service and in-service teachers nor most of teacher trainers, inspectors and CLIL coordinators mentioned this need, although assessment has been regarded as one of the weakest areas in CLIL (Asikainen et al., 2010; Marsh, 2002). Apparently, according to school leaders, CLIL teachers may not know how to balance language and content so that one cannot delay the other (Coonan, 2011). Teachers may also struggle to move towards a formative assessment in CLIL settings. Meyer, Coyle, Halbach, Schuck, & Ting (2015) already noted that there is an incomplete understanding and guidelines on how to integrate assessment methods. However, previous studies analysing school management teams' opinions about teacher qualification in Catalonia do not report training needs for assessment (AQU, 2015; Freixa, 2017). However, formative assessment is not intrinsic of CLIL suggesting that teachers may not always be acquainted with the principles of formative assessment. Despite the importance of assessment in the learning process and some work done on CLIL assessment (Massler et al., 2014), the topic has not received much attention. Therefore, more research is needed in order to better know what the exact assessment needs of CLIL teachers are.

In-service teachers and school management teams also believe that CLIL teachers have training needs relative to **CLIL theoretical underpinnings**. Mainly, teachers appear to have an incomplete knowledge on second language theories and the learning theories beyond CLIL. This need does not disappear with experience. However, according to the school management teams, CLIL theoretical needs are the less profound among all pedagogical training needs (\bar{x} =3.54). Interestingly, pre-service teachers, teacher trainers, CLIL coordinators and inspectors do not mention this training need. It seems that participants do not think that some of their training needs are the result of an insufficient knowledge of the theoretical principles. Nevertheless, mastering the theoretical knowledge is a paramount condition to be competent (Cano, 2015) and to make wise pedagogical decisions. Even though CLIL frameworks have added the theoretical principles as part of CLIL teachers' profile (Bertaux et al., 2009; Lorenzo et al., 2011; Marsh et al., 2010), the truth is that previous research has not tended to study the perceived training needs relative to CLIL theoretical principles. Finally, although a branch of teacher education has described teachers as reflective practitioners (Schön, 1983) who learn from their daily experience in the classroom to build their own curriculum (Elliott, 1983; Stenhouse, 1971), training needs for **self-reflection** are only reported by pre-service teachers in the close-ended questionnaire. However, pre-service teachers believe that their needs for self-reflection are less deeper than for language. Therefore, one could think that teachers do master self-reflection, or

at least more than the other domains, as results in study 1 suggest. Another possibility is that self-reflection is not seen as a key competence for daily teaching and ongoing development. Nevertheless, some CLIL training programmes have included self-reflection as an essential domain (Escobar, 2010, 2013). Thus, the fact that training needs are not mentioned for self-reflection could be explained by how the role of the teacher is understood: as a technician or as a reflective practitioner.

The identified training needs could be determined not only by the contextual variables and the participants' profile, but also by the type of instrument used (Hernández-Sampieri et al., 2006). Most of the training needs were analysed in the questionnaires, where participants were forced to rate these domains. However, when participants were asked for their training needs in the semi-structured interviews they basically referred to language knowledge and methodology, followed by content knowledge, materials development and assessment. This is the case, for instance, of study 3 results in which school management teams believed that teachers' deepest training need was assessment ($\bar{X}=4.63$), but this training need was not mentioned at all in school leaders' semi-structured interviews. Additionally, the school's context ($F(3,45)=4.809$, $p=.005$, $\eta^2=.243$) and school leaders' qualification ($F(9,50)=7.502$, $p<.001$, $\eta^2=.149$) seem to explain some of the reported training needs. That is, teachers' training needs appear to be deeper when teachers work in a school in which there is a middle level of complexity and the school management team does not have the sufficient qualification for CLIL implementation. It could be that middle level complexity schools had to overcome some initial conditions (e.g. students' socio economic and cultural status...) that low level complexity schools are not facing (AQU, 2015). The fact that no significant differences are found for high complexity schools could be the result of the reduce number of high complexity schools that implement a CLIL project.

As previous research has found (Bovellan, 2014; Durán-Martínez et al., 2016; Lo & Macaro, 2015), the findings suggest that some of **the perceived training needs change depending on teachers career cycle** (Huberman, 1988): initial teacher education, early career and ongoing development. This is the case of language knowledge or classroom management. However, other training needs appear not to disappear over time, such as methodological and material development training needs. This finding has two important implications for teacher education. First, it is important to define CLIL teachers' profile so that teacher education is articulated along teachers' career (Caena, 2011; Freixa, 2017). Second, current teacher education needs to be revised in depth because neither initial teacher education nor ongoing development seems to be providing an effective answer to some of the training needs. On the other hand, ongoing training

should consider schools' context since, according to the school leaders, teachers training needs are deeper when the school's level of complexity is higher. This finding is in line with recent studies in Catalonia (AQU, 2015; Freixa, 2017).

The training needs identified are not always believed to be specific of CLIL. According to the experts consulted, it is the integration of content and language what is CLIL's hallmark, as well as the language integrated curriculum and the methodological adaptations. Apparently, some of the training needs aforementioned are due to the insufficient attention provided to these areas in initial teacher education and ongoing development. However, this integration, or the fact that contents are taught in a language that neither teachers nor students master, affect teachers' sense of professionalism (Moate, 2011b), as well as their identity as teachers since they are no longer content or language teachers (Nikula et al., 2016; Pappa et al., 2017). Another explanation is that CLIL makes more salient the actual teachers' pedagogical needs. All in all, these findings suggest that teachers are not used to integrating content and language and they are not aware of their students' language needs. Thus, these results have also implications for L1 teaching and learning, as well as for those newly arrived students that do not speak the lingua franca.

Pedagogical training needs have also been identified for **school management teams**. In fact, school leaders perceive that they **have an insufficient understanding** of most of the assessed areas in study 3, independently that these domains are related to organisational or pedagogical aspects (Table 88). Although previous studies have already noted that school leaders do not always have sufficient knowledge about CLIL (Doiz & Lasagabaster, 2017; Laorden & Peñafiel, 2010; Mehisto & Asser, 2007), the school leaders consulted consider that their pedagogical training needs are lower than the relevance of certain domains for a member of the school management team. Nevertheless, it would have been expected that school management teams reported higher training needs relative to school-based CLIL implementation, such as coordination ($\bar{x}=2.87$), than for pedagogical aspects, like assessment ($\bar{x}=4.69$), because school leaders may not be directly involved in CLIL realisation in the classroom. However, school management teams do believe that they have an incomplete understanding on how to implement CLIL in the classroom (assessment, methodology, language knowledge and materials development), being their main weaknesses assessment and research ($F(9)=4.797$, $p<.001$, $\eta^2=.094$). Nevertheless, the results obtained in study three appear to be contradictory. While school leaders report low training needs for CLIL theoretical underpinnings in the close-ended questionnaire ($\bar{x}=3.23$), they complain about their lack of knowledge about CLIL and its

underlying principles in the semi-structured interviews. These opposite findings could be a consequence of the type of instruments used and the profile of the participants' interviewed (Hernández-Sampieri et al., 2006). However, CLIL experts do believe that school management teams have considerable training needs relative to CLIL conceptualisation and theoretical principles. This idea is also defended by some teacher trainers and inspectors who believe that some of the organisational challenges when CLIL is implemented in a school are due to school leaders' insufficient understanding of CLIL. School management teams' incomplete comprehension of CLIL could make distributed leadership more difficult (Bolívar, 2016; Harris, 2013) and, therefore, they rely on a single teacher to implement CLIL. Likewise, school leaders' training needs could be also caused by the type of training received (mainly a course focused on theory) and the process followed to access to a leadership position. However, due to the amount and variety of tasks, school management teams tend to be more focused on management rather than pedagogical leadership (Escudero, 2014), a tendency that has been strengthened by the current educational law (LOMCE 8/2013 de 9 de diciembre).

It is worth noting that school leaders' **perceive that their training needs vary significantly depending on the school's level of complexity** ($F(3,46)=2.797$, $p=0.51$, $\eta^2=.154$), **the participation of school management team's members in the CLIL classroom** ($F(2,47)=3.643$, $p=.034$, $\eta^2=.134$) and the **training received** ($F(5,44)=2.804$, $p=.028$, $\eta^2=.242$). As already pointed, CLIL training focused on how to implement CLIL appears to be essential for school leaders so that they can know how to implement it and how to adapt the project to the school's characteristics (Doiz & Lasagabaster, 2017; Genesee & Hamayan, 2016). Indeed, the CLIL training received and its quality appears to be the main cause of school leaders' perceived training needs. On the one hand, school management teams do not assess positively the training received for CLIL since this training has not offered them the possibility to understand what CLIL is and what it implies. On the other hand, CLIL experts reinforce this idea stressing that school leaders' have an incomplete understanding of CLIL, its objectives and implications in terms of school's organisation and students' learning. Due to school leaders' role, their insufficient mastery of CLIL can have negative implication on CLIL implementation and institutionalisation (Antúnez, 1998; Fullan, 2001; Harris, 2004, 2013). Despite most of the training needs are perceived, the training need relative to assessment appears to be prescriptive because the Catalan Education Department established a new assessment order (Ordre ENS/164/2016 de 14 de juny, 2016).

In short, these findings suggest that CLIL conceptualisation and integration are at the baseline of the pedagogical training needs identified. **CLIL tends to be understood as a language approach rather than as the integration of content and language curriculum** (Dalton-Puffer, 2011; de Graaff, 2016; Hüttner & Smit, 2014). Moreover, CLIL seems not to change the institutional roles of teachers and learners (Nikula et al., 2013). Additionally, CLIL seems to be perceived as something that happens in the classroom rather than a school project. Consequently, CLIL is implemented using the old structures that establish a barrier between subjects (Beane, 2005) without reflecting on curriculum integration and language integrated curriculum. To this, it has to be added that initial teacher education is not allowing teacher students to experience what curriculum integration is (Conner & Sliwka, 2014). Therefore, there is a tension between the new ideas and the old structures that may prevent to obtain the positive outcomes attributed to CLIL.

Furthermore, teachers' pedagogical training needs identified in this PhD have already been noted by previous studies (Durán-Martínez & Beltrán-Llevador, 2017; Pappa et al., 2017; Pérez-Cañado, 2016c; Truscott de Mejía, 2016) what indicates that some of these needs could be found in other contexts. It seems that CLIL teacher education is too focused on developing language proficiency, that other relevant areas, such as integration, are neglected (Koopman et al., 2014). However, this study has shed light on the training needs of school management teams since this topic has not received much attention from researchers (Doiz & Lasagabaster, 2017), as well as how teachers' pedagogical training needs vary over time. All in all, considering that training is a key condition for change (Fullan, 1985), as well as to ensure students' learning, teacher and school management teams' training should be addressed. It should be thought how initial teacher education, early career and ongoing development can contribute to content and language integration. Nevertheless, when planning CLIL training, it should be considered teachers' profile (content or language trained teachers) and the previous training received.

H3: Teachers and School management teams believe that they do not have enough organisational training to implement CLIL projects.

The organisational training needs of teachers and school management teams were explored in studies 1 to 4 through pre-service and in-service teachers, school management teams, teacher trainers, inspectors, CLIL coordinators from the Educational Department and CLIL experts' perceptions. The data was collected through questionnaires, semi-structured interviews and a narrative review. However, note that organisational training needs emerged from the analysis of semi-structured interviews in study 1 and study 2 narrative review. For this reason, they were explicitly and further researched in studies 3 and 4.

With regard to **teachers' organisational training needs**, participants perceive that teachers have training needs relative to coordination, interschool collaboration and CLIL adaptation and implementation. Even though some theoretical papers have highlighted the importance of the organisational aspects for CLIL implementation (Genesee & Hamayan, 2016; Mehisto & Asser, 2007; Mehisto & Genesee, 2015), the truth is that there is scarce research evidence of teachers and school management teams' organisational training needs (Durán-Martínez & Beltrán-Llervador, 2017; Laorden & Peñafiel, 2010; Soler et al., 2017). Nevertheless, previous findings indicate that teachers, especially those that have a long experience in CLIL contexts, seem to perceive school's organisation as an important aspect to ensure CLIL sustainability (Durán-Martínez et al., 2016).

The participants of this study perceive that they have an insufficient mastery of **coordination**. Apparently, teachers tend not to have a long experience working together, especially with teachers from different specialities. However, developing professional communities is necessary for effective school improvement (Bolívar, 2016). Although CLIL experts, teacher trainers, CLIL coordinators and inspectors reinforce this idea, school management teams believe that teachers do not have considerable training needs for coordination ($\bar{x}=2.96$), in line with previous studies (Freixa, 2017). Other studies comparing CLIL teachers and school management teams' perceptions have also found that they do not always agree in terms of CLIL implementation process (Soler et al., 2017). These different perceptions could be the result of how coordination is understood and enacted. That is, whether coordination is conceived as deciding who does what or as the way to transform teaching and learning together (Hargreaves & O'Connor, 2017). As already stated along this study, coordination is believed to be one of CLIL's cornerstone (Genesee & Hamayan, 2016; Pavón Vázquez et al., 2015), as well as a necessary condition for school change (Fullan, 1985; Hallinger & Heck, 2011; Sammons et al., 1995). It seems that one of the problems for coordination is that CLIL breaks the barriers between subjects whereas the old structures are kept (teachers' specialisation, curriculum fragmentation...). Consequently, CLIL implementation has to come along with a revision of the school's structures (Coronel, 2002) since those structures that will facilitate the implementation of this approach will be those that are flexible and open (Bolívar, 2001). Nevertheless, coordination is believed to be one of CLIL's main challenges because coordination tends not to be embedded in school's structures (Laorden & Peñafiel, 2010; Turner, 2015). All this may explain why teachers perceive that coordination is one of their organisational training needs. Nonetheless, it is surprising the gap between teachers and school leaders' perceptions. It could be that school management teams are not supporting the creation of the right conditions for coordination to take place, what can difficult even more

teachers' coordination. For this reason, future research should analyse what type of collaboration is fostered in CLIL and what the results of these types of collaboration are. Additionally, it should be further studied how school management teams can create the conditions to move towards collaborative professionalism (Hargreaves & O'Connor, 2017).

Participants also report training needs for **interschool collaboration**. In general, according to teacher trainers, CLIL coordinators, inspectors and school leaders, sharing and disseminating CLIL practices with other institutions and stakeholders is not common, despite the relevance of educational community involvement (Hopkins et al., 2014; Murillo, 2003). However, previous evidence in the Catalan context is inconclusive, while some scholars believe that training needs for interschool collaboration start to be noted (Piquer & Lorenzo, 2015), other studies indicate that 56% of schools' innovations are in terms of interschool collaboration (AQU, 2015). Interestingly, CLIL experts believe that this need is also true in other Spanish communities. Therefore, it needs to be further explored whether the lack of interschool collaboration is culturally endemic in Spain or schools are also close to the environment outside the Spanish borders. However, to the best of our knowledge, there is no evidence of previous experiences of collaboration between different institutions or educational stakeholders to implement CLIL. Therefore, further research is needed to study how this collaboration is conducted and what the purpose is.

Project's management appears to be a big area where organisational training needs are identified. Project management encompasses the adaptation and implementation of CLIL to the school's characteristics (school's ethos, needs...), adjusting the school's educational and linguistic projects, as well as organising the resources to the educational purposes (time, space, materials and qualified teachers). Teachers, specially in-service teachers without experience in CLIL, appear to struggle to start the CLIL project and sustain it over time. These difficulties could be the result of an insufficient understanding of CLIL and its implications. However, it appears that the perceived organisational training needs are not individual, but from the organisation. This may indicate that teachers are implementing the project in isolation (Pladevall-Ballester, 2015) without having the necessary organisational conditions that would facilitate CLIL institutionalisation (Fullan, 1985; Sammons et al., 1995). Indeed, although school management teams believe that teachers' organisational training needs are lower than the pedagogical ones, they also consider that teachers have training needs for CLIL adaptation to the school context (\bar{x} =3.41), CLIL implementation (\bar{x} =3.31) and adjusting the school's educational and linguistic project (\bar{x} =3.06), as it was found in Doiz and Lasagabaster (2017). It is true that primary teachers

may not receive the sufficient organisational training during initial and ongoing education, but all these actions are responsibility of all teaching staff. Therefore, it should be further explored whether individual teachers are given the responsibility to implement the CLIL project, especially when school management teams are not qualified for it ($F(9,50)=7.502, p<.001, \eta^2=.149$) and the school's level of complexity is moderate ($F(3,45)=4.809, p=.005, \eta^2=.243$), as the results of the study suggest. Furthermore, it appears that school-based training could be beneficial for those schools implementing a CLIL project because the training would allow to rethink the school's organisation, as well as to prepare teachers for CLIL in the classroom (Coronel, 2002; Murillo, 2002).

Organisational training needs have also been identified for **school management teams**. In general, school leaders have received scarce or no training at all to implement CLIL (Laorden & Peñafiel, 2010). This lack of knowledge about CLIL seems to explain why school management teams do not get involve in CLIL (Durán-Martínez et al., 2016). Furthermore, school leaders who have been trained within the CLIL approach tend not to be satisfied with the training received because it has not allowed them to know what CLIL is, what the theoretical principles are and how to implement CLIL in their schools, as Laorden and Peñafiel (2010) found. Nonetheless, surprisingly, school management teams think they have deeper pedagogical than organisational training needs, independently of whether they implement CLIL in the classroom or not. It is also surprising that school leaders believe they do not have considerable training needs for coordination ($\bar{X}=2.87$) when previous research has pointed coordination as one of the main difficulties to be overcome when CLIL is implemented (Laorden & Peñafiel, 2010; Mehisto & Asser, 2007). Therefore, it should be further analysed what school leaders understand by coordination and how they encourage it in their schools.

School management teams think that they have training needs relative to **project evaluation** and **research**. School leaders believe that they have an insufficient mastery of project evaluation ($\bar{X}=4.69$) and research ($\bar{X}=4$) in the close-ended questionnaire ($n=54$). The training needs relative to evaluation appear to be prescriptive since the Catalan Education Department is demanding schools to account for their results (Ordre ENS/164/2016 de 14 de juny, 2016). CLIL experts also believe that school management teams do not have a complete understanding of how to evaluate an innovation project such as CLIL, as well as they are not acquainted with the knowledge and evidence from second language research. Evaluation is not a new training need of the Spanish educational system (Marcelo et al., 2010) since it does not exist the culture of evaluating the outcomes of an innovation (Bolívar, 2016).

CLIL experts also believe that school management teams have an insufficient mastery of **CLIL design** and **implementation**, something that Doiz and Lasagabaster (2017) found in the Basque Country. However, school leaders only report moderate training needs relative to CLIL adaptation ($\bar{X}=3.41$), implementation ($\bar{X}=3.41$) and school's project adaptation ($\bar{X}=3.22$) in the close-ended questionnaire. During the semi-structured interviews, school leaders only mentioned the difficulties relative to CLIL implementation but they never related these difficulties to an insufficient understanding of this approach. In fact, school management teams tended to think that their needs were result of the training received, the system and the context. However, as already stated, not mentioning some training needs does not mean that school management teams do not have these needs. It could be that they are not aware of them yet or that they do not consider them urgent (Montero, 1986). In addition, the results indicate that school leaders believe that their training needs are lower than the desired training any member of the school management team with a CLIL project should have. However, the complains about the training offered by the GEP project seems to indicate that their lack of knowledge about CLIL and how to implement an innovative project are some of the causes of the challenges faced.

All in all, despite CLIL peculiarities, the organisational training needs appear not to be specific of CLIL, but of any innovation project (Fullan, 2001; Hopkins et al., 2014; Murillo, 2003; Sammons et al., 1995). Therefore, the results seem to indicate that **school leaders may not have the sufficient knowledge of CLIL and organisational leadership** (Doiz & Lasagabaster, 2017). However, school management teams do not relate the faced difficulties to their qualification or the school's contextual variables since school leaders believe that the main barriers are systemic. Another explanation is that they believe that they have a minor role in CLIL implementation.

On the other hand, teachers' organisational training needs do not seem to be individual, but of the school. Nevertheless, it appears that the idea that the organisational knowledge is the result of the addition of teachers' individual knowledge still prevails (Gairín & Martín, 2004). Albeit being necessary, individual teachers' qualification will not lead to school change (Fullan, 1995), it is necessary to move towards collaborative professionalism (Hargreaves & O'Connor, 2017) and develop professional communities (Bolívar, 2016). Thus, the overall impression is that teachers have to overcome the institutional barriers individually. However, an innovation project such as CLIL, which demands a move towards integration, implies a reconceptualisation of the organisational structures. Although it is true that teachers and school management teams are not provided with the sufficient organisational knowledge, the institutional challenges have to

be solved collectively. Apparently, more organisational training should be provided during initial teacher education, but also during ongoing development.

S02: To know the competences and training requisites of CLIL teachers and school management teams.

H4: Language and content knowledge and methodological competence are considered essential requisites for CLIL teachers and, consequently, training has to address these requisites.

CLIL teachers' requisites and competences were explored in studies 1, 3 and 4 through pre-service teachers, school management teams, teacher trainers, inspectors, CLIL coordinators from the Educational Department and CLIL experts' perceptions. The data was collected through questionnaires and semi-structured interviews.

Gathering the ideas of previous definitions (Caena, 2011; Cano, 2015; European Commission, 2007; Perrenoud, 2004b; Rogiers, 2007; Tardif, 2008), in the framework of this PhD, competence has been defined as the ability to mobilise and integrate complex knowledge, skills and attitudes rapidly, properly and creatively to solve challenging situations in a given context. Therefore, although some CLIL studies have defined content and language knowledge, as well as the theoretical principles, as key competences for a CLIL teacher (Bertaux et al., 2009; Lorenzo et al., 2011; Marsh et al., 2010), in this doctoral dissertation are regarded as requisites (see 4.1.2.2.); that is, core knowledge to be competent.

As the theoretical framework revealed, the findings suggest that not only **there is no single conceptualisation of competence**, but also it is not always clear what a competence is (Olsen, 2005; Struyven & De Meyst, 2010) and not everyone shares the same understanding towards this approach. For instance, in this study, experts define competence as knowledge or they believe that competence and requisite are synonyms. The fact that CLIL experts do not have a clear conceptualisation of competence points some of the current challenges for teacher education, in general, and, more specifically, for CLIL teachers' education. First, if it is not clear what a competence is, it will be more difficult to agree on CLIL teachers' profile and design a training proposal that fosters competences' development along teachers' professional career (initial teacher education, early career and ongoing development) (Caena, 2014a). Second, if it is not clear what a competence is and what it implies, it is even more challenging to implement the competence-based approach demanded from the European institutions (European Commission, 2007, 2018a; European Council, 2000) because there will be more personal and institutional barriers that will constrain this change (Caena, 2014b; Olsen, 2005; Struyven & De Meyst, 2010).

Several **key competences** have been highlighted for **CLIL teachers**. For the purpose of this study, the identified competences have been labelled as: **self-reflection, communicative, methodological, assessment, classroom management, materials development, project management and research**. However, not all these competences have been identified by all the groups consulted. Additionally, some of the competences identified emerged from the semi-structured interviews and, consequently, were included later in the study. This is the case, for instance, of materials development and project management competences. In line with previous studies (AQU, 2015; Cano & Fernández-Ferrer, 2016; Freixa, 2017), it seems that participants are reluctant to say that a competence is not relevant for a future teacher. This could explain why all stakeholders tend to rate high all competences when they are asked to do so in the close-ended questionnaires, whereas participants only report certain competences when they are asked about their opinion in the semi-structured interviews. Thus, again, the type of instrument used to collect data seems to influence the results (Hernández-Sampieri et al., 2006).

The competences that are reported by all stakeholders in both close-ended and open-ended data collection instruments are **communicative** and **methodological competences**. Apparently, according to previous studies (Bertaux et al., 2009; Escobar, 2010; Grup de treball d'Anglès del Programa MIF, 2016; Hillyard, 2011; Lorenzo et al., 2011; Marsh et al., 2010; Dafouz et al., 2009; Pavón Vázquez & Ellison, 2013; Pistorio, 2009), these two competences appear to be the core domains for a CLIL teacher. However, it is worth analysing why these competences are reported by all stakeholders. First, note that the concepts 'communication' and 'methodology' tend to be used as umbrella terms. It has been found that some participants understand communicative competence as a synonym of language knowledge. Therefore, communicative competence may not be understood as a central domain for the teaching activity because it is the means and the object of learning (Cavalli et al., 2009), but just because CLIL implies teaching in a language both teachers and students do not master. Likewise, the term methodology is used as an umbrella term that goes from the teaching methods and strategies to pedagogy. Therefore, it is important that competences are clearly defined when researching participants' perceptions. Second, interestingly, key competences are also the same domains where participants report deeper pedagogical training needs (see hypothesis 2). Interestingly, experts tend to believe that communicative competence or communicative and methodological competences are the most important domains for a CLIL teacher. In addition, pre-service teachers, but, specially, teacher trainers, inspectors and CLIL coordinators believe that communicative competence is significantly more important than self-reflection competence ($\chi^2(3)=14,625, p=.002, x=.15$). Apparently, there is a tendency to consider that key competences for CLIL are those that are

clearly linked to teaching in the classroom and, more concretely, to instructing the prescribed contents. Thus, it remains unclear whether communicative and methodological competences are believed to be key competences because these are the domains where currently considerable training needs are identified or because mastering these two competences offers a clear advantage in CLIL teaching and learning. Probably, the correct answer is a mix of both options. A third possibility is that CLIL is understood as a language approach only and, consequently, what teachers need is to master the language and also know how to teach it so that students' can learn it.

Three other competences are reported by all stakeholders: classroom management, materials development and project management. While classroom management and project management have been identified as key competences by previous frameworks (Bertaux et al., 2009; Lorenzo et al., 2011; Marsh et al., 2010; Dafouz et al., 2009), materials development has been only highlighted by *The European Framework for CLIL Teacher Education* (Marsh et al., 2010) and the *General Key Teachers' Competences Framework* (Dafouz et al., 2009). However, although all groups believe **classroom management** is a key competence, it tends to be reported in the close-ended questionnaires, but it is hardly ever mentioned during the interviews. A possible explanation is that participants encompass classroom management within methodological competence. Another possibility is that classroom management is not understood as managing students' behaviour instead of the ability to scaffold and manage communication or students' participation (Grup de treball d'Anglès del Programa MIF, 2016; LePage et al., 2005). **Material and learning resources competence** arose from the analysis of study 1 semi-structured interviews and, consequently, it was included in this PhD. As already stated, material development competence is believed to be a key domain because there are scarce learning resources that are intended to non-native speakers and that integrate and balance content and language (Oakes, 2002). Nevertheless, this ability appears to be also necessary for a general primary teacher (European Commission, 2012b, 2013a; Moreno-González, 2011). In the same line that communicative and methodological competences, classroom management and material and learning resources competences are linked to teaching in the classroom. Therefore, it seems that the vision of a good CLIL teacher that prevails is that one of a teacher that is an expert in the classroom. As Hargreaves and O'Connor (2017) put it, schools may be full of good teachers that work alone, but isolated teachers do not transform teaching and learning.

With regard to **project management competence**, it encompasses other subcompetences or abilities such as coordination, project design and implementation and interschool collaboration.

Therefore, even though project management has been used as a general term to comprise different domains, stakeholders only refer to some of these domains. For instance, pre-service language teachers, inspectors, teacher trainers and CLIL coordinators only mentioned coordination and interschool collaboration, whereas school leaders and experts also referred to the adaptation and implementation of the CLIL project. In the same line, while all consulted frameworks of CLIL teachers' competences concur in identifying collaboration as a key competence (Bertaux et al., 2009; Lorenzo et al., 2011; Marsh et al., 2010; Dafouz et al., 2009), only two frameworks also include other subdomains such as project design and implementation or resources management, among others (Bertaux et al., 2009; Marsh et al., 2010). Therefore, due to the width of 'project management competence', it should be thought whether it would be more useful to break down this competence in more specific competences, such as coordination.

Self-reflection competence is only considered a key competence for pre-service teachers, inspectors, teacher trainers, CLIL coordinators and CLIL experts. Interestingly, this competence is only pointed when participants are asked to rate its relevance in the close-ended questionnaires. Additionally, according to study 1 results, self-reflection competence is believed to be less important than communicative, classroom management and methodological competences ($\chi^2(3)=14.625$, $p=.002$, $X=.15$). Moreover, when CLIL experts were asked to order the competences, they tended to consider that self-reflection was one of the less relevant competences. Indeed, only two out of the ten experts placed self-reflection competence in the first place. However, self-reflection competence is believed to be a key competence for any teacher since all teachers should be reflective practitioners (Schön, 1983) that identify their own ideas and believes, as well as evaluate their practice to improve it (Barber & Mourshed, 2007; Bransford et al., 2005; Caena, 2011; González & Wagenaar, 2002; Perrenoud, 2004a). Despite the relevance of this competence and the fact that almost CLIL teachers' competences frameworks include self-reflection competence, there may be different reasons that explain why this competence is not mentioned by the participants of this study. First of all, it seems that stakeholders have an instrumental vision of key competences; that is, they tend to report as key competences those domains that are closely linked to the actual teaching practice with students; that is, domains that are related to what happens in the classroom. Consequently, participants seem to understand competences with a restrictive meaning; that is, as a specific set of professional skills (McClelland, 1973). However, the risk of understanding competences in this sense is that, at the end, it is believed that the teaching profession is reduced to a set of skills to instruct the prescribed knowledge (Barnett, 2001; Bolívar, 2008; Gimeno, 2008).

A second reason why participants select the competences linked to classroom teaching is because of how a *teacher* is conceptualised: as a technician that implements what is prescribed or as a professional that learns and reflects from his/her own practice and with others (Schön, 1983; Stenhouse, 1971). Another possible explanation is that teacher education is not addressing these meta-competences that are not as tangible or closely linked to specific content (Cano & Fernández-Ferrer, 2016). In fact, teacher trainers, inspectors and CLIL coordinators also rate self-reflection competence significantly lower than the other competences. Consequently, even though recent reports suggest that teachers should be trained to think critically, responsibly so as to improve and innovate in his/her teaching practice (Freixa, 2017), the findings suggest that before describing teachers' profile, it should be reflected on teachers' role.

Interestingly, only in-service teachers, school management teams and CLIL experts consider that **assessment** and **research** are key competences for a CLIL teacher. These two competences have also been identified as relevant for any teacher (Caena, 2011, 2014a; Conway et al., 2009; European Commission, 2013a; González & Wagenaar, 2002; Gordon et al., 2009; Piesanen & Välijärvi, 2010) and for a CLIL teacher (Marsh et al., 2010; Milne et al., 2009). The reason why in-service teachers and school management teams consider assessment and research competences as two core domains for a CLIL teacher could be explained by their experience. That is, they have already faced the challenges of implementing CLIL in the school and in the classroom. For this reason, research on school change has put so much emphasis on continuously going back to the initial plan and the aims since difficulties that were not initially planned could arise during the process (Hargreaves, 2005; Stoll & Fink, 1999). The results reported in hypotheses 2 and 3 indicate that teachers have an incomplete understanding of how to assess content and language integratively (Coonan, 2011). Additionally, the new assessment demands from the Catalan Education Department (Ordre ENS/164/2016 de 14 de juny, 2016) may have impact on in-service teachers and school leaders' perceptions about assessment. On the other hand, CLIL implementation tends not to be informed by previous research, as well as research is not used to improve practice (Durán-Martínez et al., 2016; Pena Díaz et al., 2005). Research competence could encourage innovation and institutional self-evaluation.

Self-reflection, communicative, methodological, assessment classroom management, materials development, project management and research are the key competences identified by a great part of the participants. Interestingly, **CLIL experts appear to think that some of these competences are more relevant than others**. Generally, experts believe that communicative competence or communicative and methodological competences are the most important

domains for a CLIL teacher (Grup de treball d'Anglès del Programa MIF, 2016; Hillyard, 2011; Pavón Vázquez & Ellison, 2013; Pistorio, 2009), in front of project management, research and self-reflection. This finding confirms that the ideal of CLIL teachers is that one of an individual who teaches individually in a classroom. In fact, the theoretical revision conducted in chapter 4 has shown that previous studies do not identify research and innovation, leadership and school organisation as contents for CLIL training (see Table 20). Additionally, self-reflection has only been considered as part of CLIL training contents for Escobar (2010), Pappa et al. (2017) and Truscott de Mejía et al. (2016).

Besides the competences reported by all stakeholders, other domains were mentioned, such as intercultural competence, ethical commitment and digital competences. Even though it is not denied that these competences are valuable for a CLIL teacher, it was intended to make a reasonable list of CLIL teachers' key competences (Perrenoud, 2004b; Tardif, 2008). Digital competence has been identified as a key competence for lifelong learning (European Commission, 2007, 2018b) and for the teaching profession (Caena, 2014b; Moreno-González, 2011; Perrenoud, 2004b; UNESCO, 2011). Consequently, it is necessary to determine whether this competence should be included in a CLIL teachers' key competences framework. Offering some sort of guidelines could help to develop CLIL training programmes (Eurydice, 2017). Likewise, it should be explored whether breaking down project management competence would be beneficial for CLIL teacher education. Nevertheless, even though competences are presented in isolation and the list of competences is longer or shorter, competences are not isolated compartments: competences interrelate and overlap (Cano, 2015; Perrenoud, 2004b). Therefore, developing one competence will imply the development of other domains.

Participants have often mentioned **content knowledge** as another CLIL teachers' key competence. In fact, disciplinary knowledge is regarded as a competence by some previous works (AQU, 2015; Freixa, 2017; Piesanen & Välijärvi, 2010). However, as stated above, according to the definition of competence, content knowledge is regarded as a requisite in this study. Since language and content knowledge, as well as theoretical principles were repeatedly reported, they were included in this study as requisites. Interestingly, while language knowledge is reported in all studies by all stakeholders, content knowledge is only mentioned by pre-service teachers, teacher trainers, inspectors and CLIL coordinators. This finding is surprising because most participants had a language background. Therefore, it seems that there is a certain tendency to understand CLIL as a language approach (Kiely, 2011) which its main benefit is language learning (Coyle et al., 2010; Marsh, 2002; Mehisto et al., 2008). However, focusing only

on language can neglect content learning (Fernández-Sanjurjo et al., 2017; Pladevall-Ballester, 2016). On the other hand, in-service teachers, school management teams and experts believe that another key requisite is **CLIL theoretical underpinnings**. Indeed, these pedagogical principles are the ones that have to orientate the teaching practice (Barber & Mourshed, 2007; Gordon et al., 2009; Hammerness et al., 2005; Schulman, 1986). Even though previous studies have labelled content, language and theoretical principles as competences (Bertaux et al., 2009; Pavón Vázquez & Ellison, 2013; Pistorio, 2009), language, content and CLIL theoretical underpinnings are the foundations to be competent.

All in all, it does not seem that there are significant differences between the identified key competences for a CLIL teacher and those of any teacher (see table 18). Therefore, the findings suggest that the main difference between a CLIL and a non-CLIL teacher is the knowledge needed to be competent rather than the competences in themselves. Nevertheless, it remains unclear why CLIL teachers perceive so much training needs if the competences are the same. Thus, it should be further researched if teacher education is providing the sufficient knowledge to CLIL teachers to be competent or whether the problem is more profound. That is, it could be that teacher training is not fully developing these competences and CLIL is making it more evident. On the other hand, the findings suggest that the idea of a good CLIL teacher is the one of an individual that has good teaching skills, not of a person that is part of a teaching community or reflects on his/her own practice. In general, it seems that the idea of a teacher that instructs knowledge should be overcome by conceptualising a teacher as a member of an educational community that learns from his own practice and collectively (Biesta, 2015; Elliott, 2015; Fullan et al., 2015; Stenhouse, 1971). In fact, this should be one of the main aims of initial teacher education.

H5: Leadership is a key competence of school management teams for CLIL implementation.

The qualification of school management teams to implement a CLIL project was explored in studies 3 and 4 through a close-ended questionnaire and a semi-structure interview to school leaders and CLIL experts.

CLIL experts believe that CLIL implementation can be the results of different initiatives (Ruiz de Zarobe, 2013), not necessary the headmaster's initiation. However, the main role of a school leader is to **create the right conditions for the project to be implemented and to lead the change** (Antúnez, 1998; Harris, 2013; Soler et al., 2017; Stoll & Fink, 1999; Stoll & Temperley, 2009). However, the results of this study (see H2 and H3), as well as previous evidence, seem to

indicate that school management teams do not have the sufficient understanding of CLIL so as to lead the process of change (Doiz & Lasagabaster, 2017; Laorden & Peñafiel, 2010). Nevertheless, most school leaders report having participated in some form of CLIL training, but almost 10% of these respondents have never been enrolled in any CLIL training programme, in line with Eurydice (2013) findings.

With regard to school management teams' competences and requisites for CLIL implementation, CLIL experts and school leaders' perceptions appear not to be aligned. CLIL experts believe that if the members of the school management team are already qualified for a leadership position, the training should be focused on **conceptualising CLIL, knowing CLIL theoretical principles and developing project management competence** (Genesee & Hamayan, 2016). Ideally, these knowledge should allow school leaders to share the vision and goals with the rest of the teaching team, foster teachers' collaboration, get the educational community involved and manage the resources (Harris, 2013; Leithwood et al., 2006, 2008). However, school management teams believe that the domains they need to develop are **evaluation of the project** ($\bar{x}=5.22$) followed by **project adaptation** ($\bar{x}=4.96$) and **methodology** ($\bar{x}=4.96$), whereas CLIL theoretical underpinnings is believed to be the less relevant domain ($\bar{x}=4.28$). Even though CLIL experts and school management teams partially agree with project management competence, these differences can be explained by the experience each group of stakeholders has with CLIL implementation; that is, while CLIL experts know what the root of the problem is (insufficient understanding of the CLIL approach), school management teams identify the domains based on their daily experience in the school. Another explanation is that school management teams are not completely aware of what they need to implement CLIL and, therefore, they mention those needs that identify from their daily practice (Montero, 1986). Additionally, school management teams believe that they need to develop evaluation competence because there is not a tradition of self-evaluating educational institutions (Marcelo et al., 2010), but there is an increasing demand on students' assessment (Ordre ENS/164/2016 de 14 de juny, 2016) and institutional evaluation from the Educational Administration (LEC 12/2009, de 9 de Juliol, 2009). Therefore, external pressure towards evaluation could be affecting institutional self-evaluation (Bolívar, 2016). Surprisingly, not only school leaders and CLIL experts' opinions are not aligned, but also there are differences between the school management teams participating in this study and those of Laorden and Peñafiel's (2010) study. The latter believed that they needed specific information of the project (86%), to exchange experiences with other schools (74%) and knowledge about groups and teacher organisation (54%). However, some of these needs seem not to be specific of CLIL.

The results from study 3 suggest that school leaders believe that the domains of project evaluation, project adaptation and methodology are more relevant when CLIL is implemented in the whole primary education stage than when the project is implemented in some grades or a cycle ($F(4,46)=3.028$, $p=0.27$, $\eta^2=.208$). Thus, the findings suggest that a school-wide project requires greater leadership, since leaders can encourage or prevent the processes of change (Hallinger & Heck, 2011). However, the results about school management teams' training for CLIL are inconclusive. Besides agreeing that leadership is needed to conduct a sustained school change (Antúnez, 1998; Hallinger & Heck, 2010; Harris, 2013; Leithwood et al., 2008), it is not agreed either the competences or knowledge needed. Despite the relevance of leadership, the truth is that there is **scarce previous evidence on the role of school leaders in CLIL** (Genesee, 2004; Mehisto & Genesee, 2015; Soler et al., 2017). However, in line with the results of this study, the available findings suggest that school management teams not only are not trained for CLIL implementation, but also the training they receive is not adjusted to their needs (Doiz & Lasagabaster, 2017; Laorden & Peñafiel, 2010). Therefore, future research should focus on school leaders' role in CLIL implementation, as well as analysing their training needs and the effect of the training received to lead the project.

H6: The most effective training modality for CLIL is that one that addresses teachers' training needs depending on the characteristics of the context.

The most effective training modalities for CLIL were explored in studies 3 and 4 through school management teams' questionnaire ($n=54$) and semi-structured interview ($n=7$), as well as CLIL experts' ($n=10$) perceptions. Additionally, the narrative review conducted in study 2 also indicated some of in-service teachers' preferences about training modalities.

It is agreed that training is a key condition for educational change (Fullan, 1995; Hopkins et al., 2014; Murillo, 2002) and, consequently, ongoing capacity to learn has to be encouraged at the school level (Coronel, 2002; Hopkins, 1987b). Some **training modalities** appear to be more effective than others and to have a higher impact on participants' sense of professionalism, as results in study 3 suggest ($F(9,50)=7.502$, $p<.001$, $\eta^2=.149$). However, there is not a one-size-fits-all training modality; that is, participants' preferences vary depending on the target (pre-service teachers, in-service teachers or school management teams) and the training purpose (Lo, 2017).

According to CLIL experts, **initial teacher education** should provide sufficient grounding to implement CLIL. Consequently, pre-service teacher education should be an example of quality teaching (Caena, 2014a; Conner & Sliwka, 2014; Conway et al., 2009; Darling-Hammond, 2006; Darling-Hammond & Bransford, 2005). Thus, at the end of initial teacher education, pre-service

teachers should know and be able to integrate the curriculum not just because they have been told what integration is, but also because they have experienced it during the training programme. However, the current problem is that pre-service teacher education is not fulfilling this aim or developing the needed competences. Apart from that, the CLIL approach tends not to be worked during initial teacher education (Bazo et al., 2016; Eurydice, 2006, 2017a). However, it should be further agreed what the role of initial teacher education is: to develop key teachers' competences to be able to develop quality learning (Black & Wiliam, 1998; Conner & Sliwka, 2014) or to qualify teachers for specific skills or specialisations. This discussion has to be made alongside a reflection of the role of ongoing development and how to articulate initial teacher education and ongoing development.

As for **ongoing development**, there is an overall agreement that **school-based training** is the best training modality when an innovation project is implemented (Coronel, 2002; Murillo, 2002), since it can foster the development of a professional community (Bolívar, 2016; Hargreaves & O'Connor, 2017). Lo's (2017) study concludes that CLIL training should be tailor-made. In fact, those members of the school management team that had received school-based training perceive that they and the teaching staff are better qualified for CLIL implementation ($F(5,44)=2.804$, $p=.028$, $\eta^2=.242$). However, school-based training does not seem to be the training modality most commonly used since only 30% of the school leaders report encouraging within-school exchanges and 13% mention school-based training as one of the modalities used. Although CLIL experts also concur in the positive impact of school-based training, it does not mean that other training modalities are not good enough to implement an innovation project. Indeed, no significant differences are found between those school leaders that had attended different training courses and those that had participated in on-site training. However, the main strength of school-based training lies in offering the opportunity to address most of the school-based conditions for educational change, such as training the teaching staff, learning organisation, share the vision and goals and collaboration (Coronel, 2002; Fullan, 1985; Murillo, 2002; Sammons et al., 1995). Nevertheless, no empirical evidences exist yet that analyses the impact of school-based training on CLIL implementation, apart from Lucietto's (2008) study.

Even though previous research acknowledges the potentialities of school-based learning (Fullan & Hargreaves, 1992; Hopkins, 1987), there are some constraints that difficult this training modality. On the one hand, the findings in study 2 suggest that in-service teachers prefer developmental training that is **CLIL specific with some periods abroad** to improve language proficiency (Di Martino & Di Sabato, 2012; Pena Díaz et al., 2005; Pérez-Cañado, 2016c). On the

other hand, it seems that not all school leaders encourage teacher training to the same extent and at the same level. In fact, results from study 3 indicate that 35% of school management teams just inform about training courses and facilitate attendance to the training. That is, while some schools motivate teacher training, other schools leave the decision to participate in some training to the teachers. Thus, these findings suggest that not all schools encourage organisational learning (Escudero, 2008; Stoll, 2009). It could be that the type of ongoing development offered by the school is strongly related to how CLIL is understood: it could be that those schools that implement CLIL as a school project offer school-based training, whereas those institutions that start CLIL as a classroom project offer or recommend individual training.

Most of CLIL teacher training is offered at postgraduate or ongoing development level (Eurydice, 2017a). For this reason, experts believe that CLIL training should be adjusted to school's context and teachers' knowledge. Ideally, this **training should be practical and continuous**; that is, training should be offered before implementing a CLIL project, during the implementation and at the end. This continuous training should provide the sufficient support to face the difficulties that will arise during CLIL implementation (Ball et al., 2015; Butler, 2005; Mehisto & Asser, 2007; Ruiz-Garrido & Gómez, 2009). However, it should be avoided the idea that training has to offer a set of skills that can be directly implemented in the classroom since each teacher will have to "find his or her own ways of incorporating the lessons and ideas" from the training (Black & Wiliam, 1998, p. 10). Interestingly, CLIL experts consider that **teachers and school leaders training should be articulated**; that is, some training contents should be the same for both groups and others should be adjusted to the specific actions that each group has to do.

In conclusion, the findings suggest that, despite having a different purpose, initial teacher education and ongoing development have to be articulated (Caena, 2011; Freixa, 2017). Therefore, it has to be thoroughly thought and planned what the end of each stage is and how they relate to each other. According to previous literature and the findings of this study, initial teacher education has to ensure that teacher students acquire the necessary knowledge and competences to confront the classroom challenges and foster students' learning (Caena, 2014b; Conner & Sliwka, 2014). For this reason, pre-service teacher education has to provide enough learning environments that allow students to experience the pedagogical and organisational conditions of quality learning (Conner & Sliwka, 2014; Conway et al., 2009; Darling-Hammond & Bransford, 2005). On the other hand, ongoing development has to qualify teachers to implement CLIL in the school and in the classroom. Consequently, sustained school-based training is

believed to be the best option (Coronel, 2002; Murillo & Muñoz-Repiso, 2002) so that the training can be adjusted to the context and teachers' experience.

However, the **current barriers** are that initial teacher education tends not to address CLIL teachers' key competences or to offer an example of integration. Additionally, school-based training seems not to be the most common training modality since learning organisation seems not to be fostered. In short, initial teacher education and initial training for leadership positions should allow teachers and school management teams to develop the key competences for their profession. CLIL ongoing development should allow teachers and school leaders to understand CLIL and know how to apply it in the school and in the classroom.

S03: To identify the organisational conditions of primary schools that favour the implementation and sustainability of CLIL projects.

H7: The reasons why primary schools decide to start a CLIL project and how CLIL is conceptualised determine how CLIL is implemented.

The results from studies 3 and 4 suggest that the favourable conditions for school-based implementation are closely linked to why CLIL is implemented and how CLIL is conceptualised. According to the school leaders, CLIL is mainly implemented in order to increase students' exposure to the curricular foreign language, English. It is believed that a major exposure to the English language will improve Catalan students' foreign language proficiency and, therefore, reach the desired percentage of students that finish compulsory education with a B1 level (Secretaria de Polítiques Educatives, 2013). This could partially explain why CLIL tends to be implemented in English (Dalton-Puffer, 2011; Dalton-Puffer & Smit, 2007; Eurydice, 2017; Hüttner & Smit, 2014). Another possible explanation is that pupils need to have a certain level of language proficiency to be able to learn the contents in that language. English is the language chosen for CLIL because it is the most common compulsory foreign language (Decret 119/2015 de 23 de Juny, 2015; Eurydice, 2017a).

Nevertheless, the reason why CLIL is implemented as a **solution to improve students' foreign language** can be explained by how CLIL is conceptualised. **School management teams tend to understand CLIL from a language and methodological perspective.** That is, CLIL is seen as an opportunity to improve students' foreign language by increasing the exposure to the target language without affecting the other curricular subjects (Ioannou Georgiou, 2012; Mehisto et al., 2008; Soler et al., 2017). The truth is that language learning has received a lot of attention while other relevant aspects, such as students' content learning, have been left aside (Koopman et al., 2014; Marsh & Frigols Martín, 2012). Nonetheless, it is not clear what school management

teams understand by students' foreign language improvement. That is, it is not clear if they refer to content-specific or content-compatible language (Banegas, 2012) or whether students acquire the way of thinking of a particular field of knowledge (Dalton-Puffer & Smit, 2013; Moate, 2010).

Most CLIL experts and some school leaders define **CLIL from an integrative perspective**. However, the term integration can be understood in different ways (de Graaff, 2016) and not all of them imply breaking down the barriers between disciplines (Beane, 2005). It seems that some participants tend to understand integration as the addition of two subjects instead of the intertwining of the curricular contents (Shoemaker, 1989). **Clarifying how integration is understood** is essential because it has important implications on school-based CLIL implementation, as well as on the type of training school leaders and teachers will need. Indeed, CLIL conceptualisation will affect the disciplinary orientation and the language pedagogy used (Coyle et al., 2010; Leung & Morton, 2016).

Another reason to implement CLIL, which is related to the first one, is to **improve students' results in the external exams**. The evidence from external evaluations, such as the competence-based exams or PISA, suggest that students' foreign language attainment is not the desired one in Catalonia (Secretaria de Polítiques Educatives, 2013; Vilalta, 2016). Therefore, it is expected that students' language knowledge will improve by increasing the amount of exposure to the target language (Ioannou Georgiou, 2012; Marsh, 2002; Mehisto et al., 2008). However, as evidence seems to indicate, it is not enough increasing the amount of hours, but the quality of the teaching and learning experiences need to also be revised (Genesee, 2004; Genesee & Lindholm-Leary, 2013; Muñoz, 2007). As Cenoz (2013, p. 392) puts it, "good language learning practices can certainly take place in CLIL but they can also take place in foreign language classes". Additionally, if CLIL implementation is just a reaction to external exams, and it does not come together with an institutional self-evaluation, it may not necessarily lead to the expected results (Bolívar, 2016).

The other two reasons why CLIL is implemented are related to **school social contribution**. On the one hand, CLIL is seen as an answer to the new social and work demands (European Commission, 1996; Pérez-Cañado, 2016a). On the other hand, some school leaders believe that CLIL can reduce the gap between students from different socioeconomic and cultural status. However, previous studies indicate that special needs students do not tend to participate in CLIL (Roiha, 2014) and teachers tend to prefer that low-achievers do not participate in CLIL lessons (Mehisto & Asser, 2007). Evidence from the Catalan context indicates that pupils' background impacts on their foreign language competence (Rodríguez, 2015). Indeed, the findings from this

study suggest that CLIL tends to be implemented in schools from low to middle level of complexity. Therefore, future research needs to study whether CLIL is used as an inclusive (Marsh, 2013) or as an elite approach (Bruton, 2011b; Paran, 2013). Additionally, future research has to explore CLIL impact on students from different social and cultural backgrounds and whether CLIL can be used as a strategy to accelerate foreign language learning of students that come from a deprived context (Levin, 1988).

Moreover, the reasons why a school decides to implement CLIL appear to be related to the perceived **CLIL potentialities**. School management teams and CLIL experts concur in identifying **language learning** as the main potentiality. Although this potentiality has been noted previously (Kiely, 2011; Marsh, 2013; Pérez-Cañado, 2016), research findings are heterogeneous and inconclusive (Cenoz et al., 2014; Nikula et al., 2013) and contextual variables appear to influence CLIL outcomes (Sylvén, 2013). Interestingly, only one CLIL expert mentioned **curricular integration** as one of the main advantages of CLIL and anyone referred to content learning. Despite the potential benefits on curricular integration (de Graaff, 2016) and content learning (Coyle et al., 2010; Mehisto et al., 2008), CLIL is generally applied as a language approach (Kiely, 2011). Therefore, it appears that CLIL implementation has not overcome the traditional vision of disciplines as tight compartments (Beane, 2005).

Besides intrinsic potentialities, CLIL implementation seems to be an **opportunity to revise and reflect on the teaching and learning process beyond the CLIL classroom**. Indeed, as any educational change, its implementation should start a process of revision and evaluation on the own practice (Fullan, 1985; Hargreaves, 2005; Stoll & Fink, 1999). School management teams and CLIL experts agree that CLIL offers the opportunity to self-reflect on the teaching practice and students' needs (Ball et al., 2015; Marsh, 2013; Nikula, 2015), as well as to increase students' motivation (Coyle et al., 2010; Mehisto et al., 2008) and teachers' coordination (Coyle et al., 2010; Pavón et al., 2015). However, these aspects are believed to be opportunities not exclusive of CLIL because other innovations could lead to the same opportunities.

The results indicate that **CLIL tends to be implemented in all primary grades** or, at least, in the middle and upper-cycles (year 3 to year 6). CLIL is normally done in **Science, Arts & Craft, Physical Education or Music subjects during less than 5 hours per week**. These findings suggest two things: first, CLIL is implemented with the clear intention to increase students' exposure to English without compromising content knowledge. Second, school-based implementation appears not to be always informed by research evidences. On the positive side, there is the sustainability of the project during a long period of time that exceeds an academic year. As

previous evidence indicates (Durán-Martínez et al., 2016; Lo & Macaro, 2015), both teachers and students need time to get used to CLIL. Consequently, for CLIL benefits to appear, it seems that CLIL should be implemented in several grades.

On the other hand, previous evidence suggests that not all content subjects seem to have the same positive effect on language gains in the long run in contexts where the exposure to the target language is limited outside the school context (Pladevall-Ballester & Vallbona, 2016; Roquet & Pérez-Vidal, 2015; Sylvén, 2013). Apparently, those subjects that have their own language, such as Arts & Craft or Music, are not the best option for CLIL. However, there is no agreement on what the best contents for CLIL are since there is the general belief that verbal subjects (e.g. History, Geography...) have a limit effect on students learning, but some evidences deny this idea (Dafouz, 2014). Therefore, research evidence seems to suggest that doing CLIL in subjects that have their own code and for limit periods of time will not cause the positive additional language improvement that is expected. Nevertheless, it could also be that the major effect on learning is how the content is taught rather than the content itself. Consequently, **research competence** appears to be more important for school leaders and teachers than it was indicated by the participants since they must have the ability to base their decisions on already existing evidence. Furthermore, CLIL training should inform about already existing research knowledge so as to help schools to make better decisions (Black & Wiliam, 1998). Future research should also analyse the effect of not sustaining a CLIL project over two educational stages (i.e. primary and secondary education).

As CLIL advocates have already stated (Coyle et al., 2010; Marsh, 2002; Marsh, 2013; Mehisto et al., 2008; Pérez-Cañado, 2012; Wolff, 2002), CLIL has some potential benefits on students' language learning, as well as it offers the opportunity to teachers to reflect on the teaching practice. However, as any other innovation, CLIL implementation brings some challenges that need to be considered before deciding that this is the best solution for the school's needs and characteristics. It should be avoided by all means that CLIL is implemented because it is a trend. Moreover, if the purpose is only to improve students' language learning, it should be thought whether CLIL is the best solution since content learning should not be compromised. Even though Catalan primary schools do not select the students that participate in CLIL, it appears that there is a certain tendency to implement this approach in more favourable contexts. Therefore, before deciding to implement CLIL, it must be considered students' needs, the potential solutions and challenges, but, above all, the ethical dimension. At the end, it needs to be decide what is understood by quality education: excellence, as it seems that the current

educational law is proposing (LOMCE 8/2013 de 9 de diciembre, 2013), or equity, a system in which all students are offered the opportunity to progress more than it would be expected due to its intake (Sammons et al., 1995).

H8: CLIL implementation and sustainability requires some organisational conditions being teacher collaboration one of the most prominent and the shortage of qualified teachers for CLIL, its main barrier.

The organisational conditions were directly analysed in studies 3 and 4 through school management teams and CLIL experts' perceptions which were collected through questionnaires (n=54) and semi-structured interviews (n=7; n=10, respectively). Studies 1 and 2 revealed that school organisation played an important role in CLIL implementation. Indeed, in-service teachers, teacher trainers, inspectors and CLIL coordinators emphasised that the organisation could ease or constrain CLIL implementation. Interestingly, opposite to what previous studies found (Durán-Martínez et al., 2016), the results of study 2 suggest that **inexperienced in-service teachers are the ones that demand organisational support** in order to know how to adapt and implement the project. Due to the importance of organisational conditions and the fact that school-based CLIL implementation has received scarce attention (Doiz & Lasagabaster, 2017; Kiely, 2011; Nikula et al., 2013), school-based conditions for CLIL were analysed in depth in studies 3 and 4.

Starting a CLIL project is a demanding task, but, above all, a slow process, as any educational change (Antúnez, 1998; Black & Wiliam, 1998; Fullan, 1985; Fullan & Hargreaves, 1992; Hopkins, 1987b). CLIL has direct curricular implications since two curricular subjects, which have been traditionally taught separately, are integrated. For curricular innovations to take place, they need to come along with organisational changes (Antúnez, 2006). Apparently, the most important organisational condition for school-based CLIL implementation is that CLIL exceeds the classroom and becomes a school-wide project. However, in general, **school leaders and CLIL experts do not regard CLIL as a school-based project, but as something that happens in the classroom without having school-wide implications**. Several organisational conditions are identified for CLIL to be a school project: leadership, needs analysis, planning, teacher qualification, curricular and organisational modifications, coordination, evaluation, interschool collaboration and dissemination. Most of these organisational conditions are aligned to the conditions identified by previous research on school effectiveness and school improvement (Fullan, 1985; Sammons et al., 1995)(see table 8). Note that not all participants mentioned all these conditions or not all conditions are applied in the same way. Interestingly, alongside these conditions, some barriers and threats arise.

School leaders and CLIL experts mention **leadership** as a necessary condition for CLIL implementation and institutionalisation. This leadership is not necessarily carried out by the head teacher or the school management team. In some schools, the leadership is distributed since a group of teachers are in charge of leading this project (Genesee & Hamayan, 2016; Mehisto, 2008; Mehisto & Asser, 2007) or there is a CLIL coordinator (Marsh, 2013; Pavón Vázquez et al., 2015; Ruiz-Garrido & Gómez, 2009). Alongside the school leader, the CLIL coordinator or CLIL commission's role is to help implementing the project (Mehisto & Asser, 2007; Pavón Vázquez, 2014; Wiesemes, 2009). Besides motivating or not the change, participants concur that the main leaders' role is to catalyse the different proposals by establishing the main objectives of the project and planning the change (Hallinger & Heck, 2010; Harris, 2013; Hopkins, 1987; Levin & Fullan, 2008). However, the role of leadership appears to vary from school to school. While there are some school management teams that get involved in the whole process, there are other schools in which the CLIL teacher(s) is the only person in charge of the project. Apparently, **distributed leadership is misunderstood in some schools** (Eurydice, 2013; Mehisto, 2008). Moreover, some schools seem to identify leadership with a person or a group of people instead of understanding leadership as an organisational property (Hallinger & Heck, 2011) based on the human potential (Harris, 2004).

As synthesised in table 80, there is no single way of implementing CLIL and the selected option seems to depend on whether CLIL project is seen as a potential improvement for students' learning or the result of a strategic and not enough meditated decision. However, some CLIL experts warn that, before deciding implementing CLIL, schools should analyse first whether **CLIL is the needed change** (Hargreaves, 2003). In other words, CLIL should be implemented after analysing the school's current needs, the potential solutions, the available resources and the implications of this approach (Antúnez, 1998; Gairín & Muñoz-Moreno, 2008; Stoll & Fink, 1999). It should be studied whether CLIL is the best solution to offer quality language learning (Cenoz, 2013) or foreign language teaching should be revised. However, as stated in hypothesis 7, the main reason why CLIL is implemented is to increase students' exposure to the target language without carefully analysing whether CLIL is what the school needs. In addition, the aim is to increase students' exposure to the target language because CLIL occurs together with traditional language lessons (Dalton-Puffer & Smit, 2013).

Once it is decided that CLIL is the appropriate change, **planning** carefully how the project will be implemented is a necessary condition to ensure CLIL institutionalisation (Antúnez, 1998; Levin & Fullan, 2008; Pavesi et al., 2001; Santos Guerra, 2010; Yang & Gosling, 2014). School

management teams and CLIL experts mention different actions relative to planning, such as deciding what the objectives of the CLIL project are, how it is going to be implemented (courses, hours, subjects...) and to motivate the teaching staff to get involved, among others. According to CLIL experts, during the planning phase, one of the most important decision is **to agree how integration is understood** (Coyle et al., 2010) and, consequently, decide how to implement the CLIL project and what to expect from it; that is, to share the same vision and goals (Fullan, 1985; Sammons et al., 1995; Stoll & Fink, 1999). It is necessary that CLIL practices are contextualised within a framework (Coyle, 2007; Ioannou Georgiou, 2012; Ruiz de Zarobe & Cenoz, 2015b). The results also indicate that there is no single way to conceptualise CLIL (Butler, 2011; Di Martino & Di Sabato, 2012; Mehisto & Genesee, 2015) and to plan CLIL project's implementation. Independently that the planning is more flexible or accurate, each school appears to follow different strategies to determine the actions to be done and the expected outcomes. Each school and teacher need to find their own way to implement the CLIL project (Black & Wiliam, 1998) depending on the school's ethos, the context, the aims and the available resources. Nevertheless, when the project is planned more accurately, leaders seem to play a major role in monitoring and adapting the project (Levin & Fullan, 2008).

Studies on educational change state that the innovation should be coherent with the **school's educational project**, as well as all modifications should be written down in this document (Pavón Vázquez, 2014; Santos Guerra, 2010; Stoll & Fink, 1999). Even though school leaders believe that adapting the school's educational project is a necessary modification when CLIL is implemented ($\bar{X}=4.87$), the truth is that the school's project seems to be modified because it is a requisite to be part of the Plurilingual Generation project (Resolució ENS/1363 de 7 de juny, 2017a) rather than the document that is the backbone of the educational activity done in a given school (Santos Guerra, 2010). Some CLIL experts also refer to the school's educational and language projects as essential documents. However, according to some CLIL experts, what appears to be important is the reflection carried out at the school level to implement CLIL rather than writing down the agreements. It is true that school change has to be the result of a collegial reflection and concurrence. Nevertheless, decisions should consider previous practices and the culture of the school (Gairín & Muñoz-Moreno, 2008; Ruiz-Garrido & Gómez, 2009; Santos Guerra, 2010; Stoll & Fink, 1999; Yang & Gosling, 2014), as well as to offer the possibility to go back to these decisions and evaluate them during the implementation (Sammons et al., 1995; Stoll & Fink, 1999). The reason why the school educational project is important is because it is a document that synthesis the school's practices and context, at the same time that it can include the new approach. Above all, school leaders and teachers should understand that the educational

school's project is a document for the schools to exercise their autonomy, not just a compulsory document demanded by the Educational Department (LEC 12/2009 del 10 de juliol, 2009). However, the fact that the Educational Project is not understood in this way suggests that either the demands from the Administration are not aligned with the purpose of the Educational Project or that there is not a school-based reflection on the type of education that is aimed to be offered (Santos Guerra, 2010). Consequently, more organisational training is needed at initial teacher education and ongoing development.

The planning phase is very important to ensure the sustainability of the project (Stoll & Fink, 1999) and understand it as a collective endeavour (Durán-Martínez & Beltrán-Llevador, 2017; Hargreaves & O'Connor, 2017). Nevertheless, the planning should be based on **how CLIL and integration are conceptualised, how the CLIL project is understood** (school-wide or classroom-based project) and **what the educational goals are**. These decisions will be the ground to develop the project since these decisions will determine all the rest. Once it is decided, it will be possible to plan CLIL implementation coherently, as well as organising teacher education, curricular and organisational modifications and teacher coordination.

School management teams and CLIL experts concur in identifying **teachers' qualification** for CLIL teaching and learning as another key condition for school-based CLIL implementation. As discussed above, both previous research (Cabezuelo Gutierrez & Fernández Fernández, 2014; Durán-Martínez et al., 2016; Eurydice, 2017a; Pappa et al., 2017; Pérez-Cañado, 2016c) and participants of this study acknowledge that the lack of qualified teachers for CLIL is the main threat for the project's sustainability. For this reason, school management teams take two measures to have enough qualified teachers: on the one hand, to train some teachers from the school and, on the other hand, to define the profile of a vacancy so that the substitute teacher has a language profile. However, this second solution may be more straightforward at the beginning, but less effective. If the CLIL project relies on a single teacher who is qualified for CLIL, when the teacher leaves, the project may disappear (Nikula, 2007). Furthermore, if CLIL teachers do not have a permanent position, the institutionalisation of some practices can be even more difficult. In this line, teacher educators from study 1 complain about the instability of CLIL teachers, something that affects the development of an innovation (Marcelo et al., 2010). However, this problem does not appear to have a straightforward solution. In Catalonia, teachers do not tend to have a double specialisation or, at least, a profound language proficiency and pedagogical language knowledge (AQU, 2015). Additionally, CLIL training is scarce, although more CLIL training programmes are being designed (Eurydice, 2017a). On top of

that, the Administration seems to push schools to implement this approach without offering sufficient training and support to teachers and schools. Therefore, if CLIL is the way to go, training should be offered to teachers and school management teams so that thoughtful decisions can be made and school-based implementation is sustained and institutionalised.

Despite the importance of teacher qualification and developing a learning organisation for sustained change (Antúnez, 1998; Gairín et al., 2009; Gairín, 2000, 2004; Hargreaves, 2003; Stoll & Fink, 1999), it seems that **school management teams do not always undertake the necessary actions to foster teacher qualification**. As results from study 3 indicate, school leaders tend to inform about available training (80%) and facilitate attendance (70%), but it is less common that within-school exchanges (30%) and school-based training (13%) are encouraged. Indeed, 13% of schools only inform or facilitate attendance to training. However, these results are not consistent with AQU's (2015) study in which school leaders reported using mentoring and school-based training sessions as the main strategy to train teachers. These findings suggest that CLIL is conceived as something that happens in the classroom rather than a school-wide project in some schools (Navés, 2009; Paran, 2013). In addition, it appears that doing a subject or part of a curricular subject in a foreign language is enough for some schools. Consequently, this change seems not to come along with a revision of pedagogical and organisational practices to encourage a professional learning organisation (Bolívar, 2016). However, changes need to have a strong focus on teaching and curriculum to foster students' learning (Fullan, 1985; Fullan, 2003; Gairín et al., 2009; Stoll & Fink, 1999; West & Hopkins, 1996). Indeed, the scarce evidence on successful CLIL programmes seems to suggest that one of the reasons of their success is the focus on content and language learning, as well as establishing high expectations (Navés, 2009; Robledo-Montecel & Cortez, 2002; Robledo-Montecel & Danini, 2002). It could be that this insufficient reflection is only given for CLIL, but it could also be that educational changes do not always start from the already existing institutional practices or encourage a reflection on these practices (Escudero, 2008). Therefore, as noted in hypothesis 3, more organisational training is necessary for both teachers and school management teams. Additionally, educators need to understand that integration is at the grassroots of CLIL and, consequently, it will have curricular and organisational consequences. Furthermore, it is necessary that educational policies not only are based on evidences, but also establish systems to evaluate programmes and to articulate reflection mechanisms.

In line with previous studies (Delicado Puerto & Pavón Vázquez, 2016; Durán-Martínez & Beltrán-Llevador, 2017; Pavón Vázquez et al., 2015; Yang & Gosling, 2014), all groups

participating in this study identify **coordination** as a key condition for school-based CLIL implementation. As already stated, coordination appears to be an essential condition because it can facilitate developing a learning organisation, integrating the curriculum and establishing external relationships (Coronel, 2002; Hargreaves & O'Connor, 2017). Due to CLIL nature, coordination appears to be a key condition so as to ensure curricular integration (Genesee & Hamayan, 2016), especially when teachers are specialised in a curricular subject. Indeed, teacher coordination is defined as a key condition of effective CLIL programmes (Navés, 2009; Soler et al., 2017; Yang & Gosling, 2014). According to CLIL experts, coordination should lead to curriculum integration and language integrated curriculum.

Despite the importance of coordination for CLIL, it appears that its realisation is not that straightforward (Genesee & Hamayan, 2016). For instance, **pre-service and in-service teachers complain about the isolation of CLIL teachers and the absence of some form of coordination** between teachers. Interestingly, school management teams rate coordination ($\bar{X}=4.56$) as one of the key conditions for CLIL implementation in the close-ended questionnaire and the semi-structured interview. Nevertheless, while all stakeholders believe that teachers have training needs relative to coordination, school management teams do not think that either them ($\bar{X}=2.87$) or teachers ($\bar{X}=2.96$) have considerable training needs for coordination. These findings are opposite to the ones obtained in previous studies which indicated that school management teams had difficulties to get all teaching staff to cooperate (Laorden & Peñafiel, 2010; Mehisto & Asser, 2007) or that CLIL implied greater coordination and meetings (Laorden & Peñafiel, 2010). These contrasting findings suggest that school leaders have a different perception than all the other stakeholders about what can prevent or reflect on the use of the available structures and resources (time, space...) to encourage coordination. Another explanation is that pedagogical reasons, school organisation and personal relationships constrain teacher coordination (Laorden & Peñafiel, 2010). That is, teachers' beliefs about learning can prevent or favour teacher collaboration (Hargreaves & O'Connor, 2017). These discrepancies can also indicate that school leaders do not have a complete understanding of CLIL, what it implies, what teachers' needs are and that CLIL is a school's project not a teacher's project. Therefore, as suggested in hypothesis 3, school management teams should receive specific training on CLIL so that they could make informed organisational decisions. Otherwise, CLIL implementation can become a major challenge for school leaders (Doiz & Lasagabaster, 2017; Mehisto & Asser, 2007). Another possible explanation why coordination is not fostered is because CLIL is understood as a language project. Consequently, the focus is on increasing the amount of language hours without reflecting on the curricular implications it has.

School-based CLIL implementation also implies some **curricular and organisational modifications**. However, these modifications will strongly depend on how CLIL is conceptualised. That is, the curricular and organisational implications will be different depending on whether the focus is on language, methodology or integration. For instance, if the focus is on increasing the amount of exposure to the target language and students' proficiency, the content subject may become the context for language learning but not the focus of learning (Kong, 2009). On the contrary, if the focus is on language and content integration, it will be necessary to plan both content and language learning and, consequently, break the barriers between subjects (Coyle et al., 2010; Dalton-Puffer, 2011). Therefore, clearly defining how CLIL is understood is a necessary condition to value what curricular and organisational modifications need to be done. Not only school leaders and experts' perceptions vary in terms of **curricular modifications**, but also school management teams' opinions change depending on the data collection instrument used. That is, while school leaders report that CLIL implementation implies modifying the methodology ($\bar{x}=4.78$), students' assessment ($\bar{x}=4.56$), the curriculum ($\bar{x}=4.5$) and subject allocation ($\bar{x}=4.31$) in the school management teams' questionnaire, they only mentioned methodology as the main modification in the semi-structured interview. In addition, school management teams also refer to other strategies to increase the amount of exposure to the additional language, such as diversifying the activities (Speaking, English Day...) or starting earlier to teach English. However, these modifications are not CLIL specific.

On the other hand, CLIL experts refer to curriculum integration, language integrated curriculum, content selection, methodology and assessment. Surprisingly, **school leaders do not refer to curricular integration** when they are not explicitly asked for that. It could be that the understanding of integration of school management teams does not go further than using an additional language to teach some curricular contents. Therefore, it seems that there is not a reflection on the content-specific language and the language for learning that students need so as to acquire the contents and use them. Consequently, CLIL appears to be understood as the content subject taught in an additional language without paying further attention to language. This would explain why there is a general agreement that content teachers should be in charge of CLIL (Alejo & Piquer, 2010; Pavón Vázquez & Ellison, 2013; Wolff, 2002), as stated in hypothesis 1. Therefore, if CLIL is understood as bringing the additional language to the content subject instead of integrating both, curriculum integration does not seem to be as important. Thus, CLIL appears not to always come along with the curricular reflection that some CLIL advocates defended (Coyle et al., 2010; Doiz & Lasagabaster, 2017). Furthermore, while school management teams focus on allocating the subjects to the teachers, CLIL experts believe that

the contents to be taught through and additional language should be carefully selected. Otherwise, the language and content results could not be the expected ones (Fernández-Sanjurjo et al., 2017; Pérez-Vidal & Roquet, 2015; Pladevall-Ballester, 2016). The insufficient focus on curriculum could have a negative impact not only on the sustainability of the CLIL project (Kiely, 2011), but, above all, on students' learning (Hopkins et al., 2014; Sammons et al., 1995).

However, in line with previous studies (Coyle et al., 2010; Dalton-Puffer & Smit, 2013), it is especially worrying that school leaders do not make any reference to **language integrated curriculum** at all. Catalonia is a bilingual community and it is compulsory that schools develop their linguistic project since students have to be competent in Catalan and Spanish by the end of compulsory education, as well as to learn, at least, a second language (Departament d'Ensenyament, 2017; Subdirecció General de Llengua i Plurilingüisme, 2018). Therefore, school leaders should know how to integrate the language curriculum independently if they have a CLIL project implemented or not. However, the overall impression is that it still dominates the old-fashioned idea that languages are separated in compartments rather than there is a common underlying proficiency between languages (Cummins, 1979, 2008); that is, bi- multilingual speakers only have one language system (Bialystok, 1987). It could be that this old-fashion vision of languages is the result of how teachers learnt languages in the school and, consequently, they are transferring this same approach to their classrooms by vicarious learning. Even though there is evidence that some Catalan schools do work towards the creation of an integrated language curriculum (Pereña, 2016), future research should explore whether Catalan schools integrate languages' curriculum independently they have a CLIL project or not. According to CLIL experts, integration is still an unresolved matter and more knowledge should be provided.

Both school leaders and CLIL experts concur in identifying **methodology** as the main curricular modification that has to be carried out when implementing CLIL. Teaching contents through an additional language has as a consequence that instructing knowledge does not work to acquire contents and language (Coyle, 2002; Hüttner & Smit, 2014; Mehisto et al., 2008; Wolff, 2002). Note that methodology is regarded as the main curricular modification, but also the area where teachers present considerable training needs and a key competence for CLIL teachers. Therefore, the insufficient mastery of methodological competence could be a barrier for CLIL implementation. Nonetheless, methodological changes should affect the whole school so that there is coherence between teachers' practices (Darling-Hammond & Bransford, 2005). **Assessment** is also regarded as a necessary modification although it is also identified as an area

where teachers present considerable training needs. Teachers may lack the sufficient guidelines that orientate them how to assess content and language integratively (Meyer, Coyle, et al., 2015). Due to the importance of assessment for students' learning, specific training should be provided.

Apart from the **organisational modifications** already discussed (leadership, planning, collaboration and teacher qualification), in-service teachers, school leaders and experts believe that school-based CLIL implementation implies a change on **resources allocation**. Resources are important because they are the means the school counts with to carry out the change (Antúnez, 2006). Even though participants refer to human resources (namely teacher qualification) and material (namely learning resources), **time allocation** seems to be the most valued modification. Both school management teams and CLIL experts agree on the importance of the use of time to favour students' learning and teachers' collaboration (Durán-Martínez & Beltrán-Llevador, 2017; Genesee & Hamayan, 2016). Interestingly, neither school leaders nor CLIL experts mention releasing teachers of teaching hours so that they can have more time for planning, although previous CLIL research identifies it as a recurrent teachers' demand (Mehisto & Genesee, 2015; Pavón Vázquez & Rubio Alcalá, 2010). Additionally, releasing teaching time appears to be necessary for teachers to learn from development and collect evidences of their effectiveness (Black & Wiliam, 1998). However, according to teachers' opinion, time and space are not always provided for teachers to collaborate. Consequently, despite having a good collaborative predisposition, the inadequate distribution of time and space can prevent these collaboration to take place (Durán-Martínez et al., 2016; Genesee & Hamayan, 2016; Hargreaves & O'Connor, 2017; Stoll & Fink, 1999). On the other hand, findings also suggest that school-based CLIL implementation appears to also affect students' grouping (Durán-Martínez & Beltrán-Llevador, 2017). Some schools split groups in two during CLIL hours.

In line with previous research (Bolívar, 2016; Fullan, 1995; Fullan et al., 2015; Hopkins, 1987b; Murillo & Muñoz-Repiso, 2002; Sammons et al., 1995; Sun et al., 2007), CLIL experts concur that **evaluation** is a necessary condition for school-based CLIL implementation. It is necessary to know whether CLIL works better and what the processes, changes and adaptations that are leading to this change are (Ball et al., 2015; Butler, 2005; Durán-Martínez & Beltrán-Llevador, 2017; Yang & Gosling, 2014). Evaluation needs to be seen as a part of the process of change (Murillo & Krichesky, 2012). However, as noted in the theoretical framework, CLIL experts are also aware that CLIL tends not to be evaluated at the school level. Even though school management teams consider that evaluative knowledge is very important for them (\bar{x} =5.22 out

of 6), the truth is they believe that by increasing students' exposure to the target language, students' learning improves (Dafouz, 2014; Hüttner et al., 2013). However, as Meyer (2010) and previous empirical evidence suggest (Fernández-Sanjurjo et al., 2017; Pladevall-Ballester, 2016), implementing CLIL does not automatically lead to successful learning and teaching.

Some school leaders also rely on external exams to evaluate CLIL effectiveness. However, external evaluations that are not preceded and followed by institutional self-evaluation will not have any impact on school improvement and students' learning (Bolívar, 2016). Additionally, Catalan external exams do not control for the amount of English hours. Consequently, despite providing valuable information, the results from the external results do not necessarily inform about how well CLIL is working. Therefore, it is difficult to establish a causal link between the external exams' results with the innovation (Escudero, 2014). The lack of evaluative culture (Marcelo et al., 2010) and the institutional evaluation established by the Educational Department (Decret 102/2010; LEC 12/2009) may difficult even more the establishment of an evaluative system to monitor CLIL. However, most of the school management teams who participated in the study had also been involved in the "Plurilingual Generation" Project. Therefore, the Educational Administration should establish mechanisms to encourage school-based evaluation and reflection aiming that these practices could be installed in the participating schools.

The last condition identified by in-service teachers and CLIL experts, as well as some CLIL coordinators and inspectors is **interschool collaboration**. Education is not reduced to what happens in the classroom between teachers and students (Fullan, 1985; Hargreaves, 2005; West & Hopkins, 1996). Establishing a sharing culture would make results and resources available. Additionally, already existing practices could help schools aiming to implement a CLIL project to understand what effective CLIL means in practice (Black & William, 1998). The educational community (families, organisations, other educational institutions...) can provide rewarding learning opportunities, as well as support for change. However, the findings from this research indicate two potential barriers for interschool collaboration. On the one hand, school management teams do not think that interschool collaboration ($\bar{X}=3.06$) is a relevant change for CLIL implementation in comparison to all the other conditions analysed ($F(7)=15,466$, $p<.001$, $\eta^2=.244$). On the other hand, it appears that schools do not have the tradition to disseminate the results. In addition, participants of this study seem to understand interschool collaboration as something that schools ask for when they need help and support. Apparently, interschool collaboration is understood as receiving rather than giving to other institutions. Consequently, it

could be that there are a set of good practices that are kept inside the school borders. Additionally, not sharing the projects' goals and results can create misunderstanding between the school and the educational community (Coyle, 2013; Pladevall-Ballester, 2015). This lack of communication between the members of the educational community suggests that education and school are seen as teachers' ownership and, consequently, families and the rest of the educational community is only informed or contacted when the school needs it (Antúnez, 2006).

In conclusion, the findings from the different studies indicate that there are some organisational conditions that favour school-based CLIL implementation and institutionalisation. Even though these conditions are aligned with previous literature, it is worth noting that **no reference is made to some of the conditions identified by previous research, such as learning organisation, educational community involvement or communication** (Sammons et al., 1995; Fullan, 1985). However, it seems that there are some barriers related to these conditions that may constrain CLIL implementation. According to Santos Guerra (2010), these barriers are individual (e.g. teacher qualification), institutional (e.g. insufficient planning) and systemic (e.g. evaluative culture, teacher preparation...). However, the root of the problem appears to be how CLIL is defined, whether it is understood as a school or a classroom project and how integration is defined. The insufficient understanding of the CLIL approach and its implications can lead to an inadequate implementation and, consequently, to delay students' learning. Therefore, to fully obtain CLIL potentialities and opportunities, it is necessary to carefully define, plan, monitor and evaluate the project.

S04: To analyse the concurrence between teachers and school management teams' perceptions with the inspectors, CLIL coordinators from the Education Department and CLIL experts' opinions.

H9: Teachers and school management teams concur in the key competences and knowledge for CLIL, but their perceptions in terms of current training needs vary.

Studies 1 to 4 analysed stakeholders' perceptions towards teacher education and training needs for CLIL implementation. The findings of these four studies offered a complete picture of CLIL implementation at the classroom and the school level (teachers and school management teams' perspective), teacher education (teacher trainers) and the educational system (Inspectors, CLIL Coordinators and CLIL experts). Additionally, the results from these four studies, as already discussed in each hypothesis, show that stakeholders' perceptions do not always concur.

To the best of our knowledge, there is no previous research that has seekd to identify the perceptions of teacher trainers, Inspectors, CLIL coordinators and CLIL experts since previous

studies have analysed the perceptions of teachers, school management teams, students and families' opinions (Coyle, 2013; Pladevall-Ballester, 2015). For this reason, it has been claimed the need to conduct more studies in which different voices are listened to and compared (Dalton-Puffer & Smit, 2013; Pérez-Cañado, 2012, 2016a). In line with previous research (Soler et al., 2017), it seems that **school leaders and teachers do not always share the same perceptions**. This is particularly the case of coordination: while teachers believe they have important training needs for coordination and that this is a relevant domain for a CLIL teacher, school management teams have a complete opposite perception ($\bar{x}=2.96$ out of 6). This discrepancy could be due to the **incomplete understanding of CLIL** (Laorden & Peñafiel, 2010) what could cause that school leaders do not know how to solve some of the difficulties that arise when implementing CLIL (Doiz & Lasagabaster, 2017).

Interestingly, **all groups concur in identifying language knowledge and methodology as two domains where teachers present considerable training needs**. Moreover, participants appear to agree that self-reflection is not as important as other competences for a CLIL teacher. The differences between groups' perceptions could be due to their knowledge and involvement in CLIL implementation at the classroom, school and system level. This could explain why stakeholders concur in some of the key competences and training needs, whereas a lack of an agreement is present for other domains. Another possible explanation is that each stakeholder understands CLIL from a different perspective. Consequently, further research is needed in order to know and compare stakeholders' perspectives, as well as to try to comprehend some of the reasons of these discrepancies. Additionally, future studies should try to identify what the consequences of the different views are when implementing CLIL in a school and how these diverse standpoints could be brought closer.

S05: To design, implement and evaluate an initial CLIL teacher education proposal for primary teachers from the identified competences and training requisites.

H10: The design and the implementation of a competence-based training proposal for CLIL teaching and learning and CLIL implementation have a positive impact on the development of student teachers' CLIL competences.

The fifth specific objective of this PhD was to design, implement and evaluate a training proposal for pre-service teachers that allowed them to acquire CLIL teachers' competences and overcome the training needs identified in the four previous studies. To this end, as shown in section 5.5.2, a training proposal was design for the double degree of infant and primary education of the University of Barcelona. This proposal was implemented in the first-year course *Planning, Design and Assessment of the Teaching and Learning Activity* (2nd semester) and the second-year course

Educational System and School Organisation (1st semester). The evaluation was carried out through a self-perceived competence level questionnaire (n=39), which was administered as a pre- and post-test to the experimental and two control groups, and students' marks. The questionnaires were different for both courses since the questionnaire assessed the competences worked in each subject. That is, the first course included self-reflection, methodological, communicative, assessment and classroom management competences, as well as language and content knowledge. The questionnaire for the second course included self-reflection, classroom management, research and project management competences, as well as language and content knowledge.

The results obtained in both courses indicate that there are some patterns that are repeated. First, at the beginning of each course, the within-subjects comparisons reveals that **teacher students tend to perceive that their level of competence varies significantly** not only between competences, but also between items assessing the same competence. This result is not strange because most competences had not already been worked before course 1 since students were first-year teacher students. As for the second course, classroom management and self-reflection had been worked during the first subject, whereas project management was worked for the first time according to the competence map design for this degree (See table 58). These differences could be attributed to the diverse formal and informal learning experiences students' had been immersed in during their life span. However, as previous studies have pointed (Perrenoud, 2004b; Tardif, 2008), these different perceptions could be the results of the fact that being competent is not dichotomous (you are or you are not competent), but a current state along a continuum. Additionally, it is usual that learners do not perceive that they have all competences developed to the same extent (AQU, 2015; Cano & Fernández-Ferrer, 2016; Eurydice, 2013; Freixa, 2017), and especially in the educational field in which teachers are asked to develop multiple and diverse competences (Caena, 2011; European Commission, 2013b). At the same time, these initial differences could be the result of not giving the same importance to all of them (Cano & Fernández-Ferrer, 2016); that is, competences are not equally worked along the degree, as already noted in the competence map design (see table 58Table 58). However, the post-test results indicate that teacher students' perceptions tend to be more harmonised at the end of both subjects. Probably, participating in a learning experience contributes not only to work each competence, but also to better understand what each competence means and how it is applied in reality. These could have helped participants to better rate their perceived competence level. Indeed, according to Black and William (1998), students' self-assessment tends to be honest and reliable, but they can only assess themselves when they understand

what they are assessing. Therefore, it could be that participants' perceived competence level was not always aligned to their actual level. For this reason, students' perceptions were aligned to their marks.

Nevertheless, note that the starting point was not the same for the experimental group and the control groups 1 and 2. While in course 1 pre-service teachers in the experimental group perceived that their competence level was higher than that one of the control group 2, it was the control group 1 who tended to perceive that their competence level was higher in the second course. Even though these initial differences could be attributed to previous learning experiences and the teachers each group had (Darling-Hammond & Bransford, 2005), the truth is that the profile of each group could also explain these significant differences. Students enrolled in the double degree (experimental group) are selected and, therefore, they tend to have a high achiever profile. On the contrary, students enrolled in afternoon groups (control groups) tend to combine their university studies with work. Consequently, they devote less time to academic work. As for the control group 1 in the subject *Educational System and School Organisation*, students were enrolled in a morning group, who tend to be more focused on their studies. However, the fact that there is only one group per each grade in the double degree made that control groups with different profiles had to be selected.

The findings obtained in both subjects suggest that **the major contribution of the piloted experience is language learning**. When controlling for the initial differences between groups, the results revealed that there was a significant effect of group for language knowledge at the end of subject 1 ($F(2,65)=3.821, p=.027, \eta^2=.104$) and subject 2 ($F(2,65)=5.145, p=.008, \eta^2=.137$). These results are in line with previous studies that also found that CLIL benefits were on students language learning at higher education level (Borràs-Comes, Rapesta, et al., 2017; Emma Dafouz, 2014; Emma Dafouz et al., 2014). However, there are previous studies that did not conclude that CLIL had always a clear positive impact on language acquisition (Jiménez-Catalán & Agustín-Llach, 2017; Pladevall-Ballester & Vallbona, 2016). According to Dafouz (2014), CLIL appears to contribute to language learning when students' use language actively, as previous research on second language acquisition has already concluded (Genesee, 2004; Swain, 2000). However, it is worth noting that the longitudinal analysis indicates that there is a significant improvement of students' perceived level of language knowledge between the beginning of the experience and the end, but there is not a significant different between students' perceptions at the end of the first and second subjects. Despite the students' gains in terms of language, the acquisition of higher language proficiency takes time (Council of Europe, 2001). Therefore, the

potential benefits of CLIL in terms of language learning may appear on the long-run (Lo & Macaro, 2015; Pladevall-Ballester & Vallbona, 2016), after a sustained participation in a CLIL learning context. Despite the apparent positive results, the findings should be interpreted with caution because the students from the experimental group were selected and tended to have higher language proficiency than other groups. Moreover, the gains could be the result of the major exposure to the target language of the experimental group. Therefore, further research is needed to analyse the effect of CLIL on teacher students' language learning so that it can be determined whether CLIL is a potential solution for pre-service teachers insufficient foreign language mastery (AQU, 2015).

The results from both experiences indicate that there were no significant differences in terms of content knowledge between the experimental group and control groups for neither course 1 ($F(2,91)=4.256, p=.017, \eta^2=.82$) nor 2 ($F(2,87)=1.076, p=.345, \eta^2=.95$). This appears to be a positive result because **content knowledge was not neglected by being taught in a foreign language** (Borràs-Comes, Arnau, et al., 2017; Dafouz et al., 2014), as it seems to occur at other educational stages (Fernández-Sanjurjo et al., 2017). Again, these results must be interpreted with caution because of the differences between the experimental and control groups. Indeed, more studies should be carried out with students that present similar characteristics in order to conclude that, under certain pedagogical practices, CLIL does not neglect content learning. The initial positive results in terms of content learning could also be attributed to the higher academic profile of students' enrolled in the double degree.

Despite the good results in terms of content and language knowledge, the piloted experience aimed to analyse the effects of the competence-based approach on the development of CLIL teachers' competences. The results of the questionnaire reveal that there are **no significant differences of the perceived level of competence** between the experimental and the control groups. Consequently, the significant gains identified in the analysis seem to be linked to the participation in a learning experience rather than to the competence-based approach used with the experimental group. However, some potential positive effects of the competence-based approach are distinguished: the experimental group perceives to be significantly more competent for **methodological competence** in course 1 ($F(2,91)=1.855, p=.031, \eta^2=.85$) and **project management competence** in course 2 ($F(2,65)=3.610, p=.033, \eta^2=.100$). Positively, both methodology and project management are two domains that previous studies have identified as necessary for CLIL implementation (Bertaux et al., 2009; Durán-Martínez & Beltrán-Llavorador, 2017; Lorenzo et al., 2011; Marsh et al., 2010) and in which teachers have considerable training

needs (Di Martino & Di Sabato, 2012; Pappa et al., 2017; Pavón Vázquez et al., 2015; Pérez-Cañado, 2016c). The type of final projects proposed in each course could explain why the experimental group perceived they had developed more these two competences. Students were asked to design and plan a didactic unit in course 1, which could be directly linked to methodological competence, whereas, in course 2, the assignment consisted of analysing an innovation, which could have enhanced project management competence.

Nevertheless, major differences were expected between the groups in terms of competences' development. The fact that no other differences were identified could be explained by several reasons. On the one hand, each course can make a contribution to competences' development, but it is the careful planning of competence development along the degree what really contributes to the acquisition of competences (Tejada Fernández & Ruiz Bueno, 2016). That is, competence development implies a continuous, systematic and planned work (Perrenoud, 2004b; Tardif, 2008). Even though a competence map was designed within the framework of this doctoral thesis for the double degree, the experience was only implemented in two courses without affecting the rest. Therefore, the findings suggest that the involvement of different stakeholders is needed for the positive benefits of integration and competence-based education to emerge (Keck et al., 2017). On the other hand, there were some variables that could not be controlled for, but they had an important effect. First, the teacher was different in each group and only the experimental group teacher was maintained during the two courses. Due to the impact of teachers on students' learning (Darling-Hammond & Bransford, 2005; Darling-Hammond, 2000; Hattie, 2003, 2012), the results of the experience could have been affected by the different practitioners involved. Second, while teachers in the control group had a long experience teaching at university level, the teacher of the experimental group did not have this experience and it was her first time teaching a content subject in English at higher education level. Therefore, it could be that both teacher and students needed more time to get used to CLIL for the learning gains to flourish (Lo & Macaro, 2015). Third, teacher students attended other courses and participated in other learning experiences within and outside the university context. All these learning opportunities could have intervened in the results (Le Boterf, 2000). Another factor is the number of questionnaires filled per each group. While almost all students in the experimental group answered the pre- and post-questionnaire, the answers of the control groups tended to be smaller and just some students answered both questionnaires. Therefore, the results could be affected not only by the number of answers, but also by the profile of the students that answer both questionnaires.

The comparison of teacher students' marks with the self-perceived competence level questionnaire indicate that **pre-service teachers' perceptions tended to be aligned with the marks obtained per each competence, but not with the final marks of the assignments.** This finding suggests that the results obtained for the experimental group are reliable since they are aligned with students' marks. However, pre-service teachers tend to perceive that their self-reflection competence level is higher than the marks they got, whereas their classroom management competence level is lower. These differences could be the result of participants' insufficient comprehension of what each competence represented in reality and, consequently, they could not properly self-assess their competence level (Black & Wiliam, 1998; Gregori & Menéndez, 2017; Tai, Ajjawi, Boud, Dawson, & Panadero, 2017). The analysis of the marks also shows an improvement of students' competences. However, this improvement appears to be determined by the type of assessment task. That is, task difficulty affects students' marks (Huber, 1985). Consequently, pre-service teachers performed significantly different in assignments submitted with 10-days difference. This is particularly the case of the portfolio assignment which is not one of the students preferences because they believe that it is too time consuming and too focused on self-reflection (Struyven et al., 2014; Van De Watering et al., 2008). Additionally, in line with previous findings, students have technical difficulties in producing evidences for portfolios that show their competence-level (Black & Wiliam, 2018).

A longitudinal analysis was conducted to further analyse the effect of a sustained practice in a competence-based approach on students' competences development. The competences worked in both courses were self-reflection and classroom management. Even though the first subject focused on the curriculum and teacher's planning and the second course on the educational system and school organisation, it was believed that students' perceived level of competence would increase over time. Nevertheless, the results indicate that the perceived level of competence varies significantly from the end of course one to the beginning of course two. Thus, **improvement seems to occur within each subject but not between subjects.** It is not clear why students' perceptions vary so much after the summer break. However, previous studies have also found that students' perception of their competence level decreases over time (AQU, 2014). It could be that students link to be competent to master the contents of the subject. Another possible explanation is that, since being competence implies solving a problem in a given context (Cano, 2015; Rogiers, 2007; Tardif, 2008), students perceived that they had a specific competence level in some contexts, whereas in others their competence level was different. A third explanation is that, due to the isolation of this experience, students did not transfer the skills acquired in one context to another or they did not link their learning activity to

a specific competence level (Rowe & Zegwaard, 2017). Another option is that new challenges, such as starting a new course, made teacher students' believe that their competence level was lower. Future research should explore if students' perceived competence level varies over time and, if so, how this perception varies and how much time is needed to perceive sustained significant changes. However, these findings also have consequences for higher education. Curriculums should be revised and redesigned so that competences are integrated and worked throughout the degree, offering rich and diverse experiences so that students can develop these competences to its full potential and transfer its skills (Rowe & Zegwaard, 2017).

Overall, the results appear to be inconclusive. On the one hand, it seems that the experience has a positive effect on pre-service teachers' language knowledge, but, on the other hand, competence improvement cannot be directly linked to the competence-based approach. Conducting a longitudinal analysis has shed light on the importance of continuous practice and institutional involvement so that innovative practices can have a clear positive impact on students' learning (Fullan, 1985; Hargreaves & O'Connor, 2017; Sammons et al., 1995). In this particular case, it seems that the isolated experience has not offered a significant contribution on students' learning, at least in the short-run. These results must be analysed with caution since they could not be contrasted with the same control group that was followed during the whole experience. Therefore, future research should conduct longitudinal studies with a stable control group that allows to clearly identify the effect of competence-based approach on CLIL teachers' competences. Finally, it should be thought about how the collected information could be used to orientate other courses and what will happen with those competences that are not worked beyond these two subjects.

8.2. Final Remarks

Integrating content and language is a difficult pedagogical journey that involves many challenges (Cammarata & Tedick, 2012). Previous studies analysing CLIL teacher education and CLIL implementation had stressed the importance of coordination (Durán-Martínez & Beltrán-Llevarador, 2017; Pavón Vázquez et al., 2015) and the scarcity of qualified teachers for CLIL implementation (Eurydice, 2017a). Even though the results from this study concur with these initial findings, they also indicate that the conceptualisation of CLIL (from a language, methodological or integrative perspective) and integration together with how the project is understood (as a school or a classroom project) are the cornerstone for CLIL teacher education and implementation since these initial decisions will determine all the other pedagogical and organisational decisions. Therefore, the findings suggest that **once a school identifies that a**

change is needed and CLIL is the solution, the following step should be defining CLIL, integration and the project's scope.

However, school management teams and teachers will have to deal with the broadness of CLIL, since CLIL has been used as an umbrella term and integration has been defined in a flexible way (de Graaff, 2016). Consequently, the people aiming to implement CLIL will encounter blurred indications on how to implement CLIL (Ruiz de Zarobe, 2013), alongside the contextual variables (Sylvén, 2013) that hinder the generalisation of results.

CLIL's width together with the lack of specific training for CLIL make that teachers and school management teams do not have a complete understanding of this approach so as to make informed decisions. The results obtained in this PhD provide valuable information to orientate teacher education for CLIL teaching and learning since the perceptions of different stakeholders have been analysed and contrasted. This analysis has led to identifying what the current pedagogical and organisational training needs of teachers and school management teams are, as well as CLIL teachers and school leaders' competences and type of training.

In line with previous research (Cabezuelo Gutierrez & Fernández Fernández, 2014; Durán-Martínez & Beltrán-Llervador, 2017; Pappa et al., 2017; Pérez-Cañado, 2016c), the results indicate that **teachers present considerable pedagogical training needs**, being language knowledge and methodological the most commonly reported by all stakeholders. Apart from these needs, training needs for content knowledge, CLIL theoretical underpinnings, CLIL conceptualisation, classroom management, material development, assessment and self-assessment are identified. However, while all groups consulted concur that CLIL teachers have training needs for language knowledge and methodology, there is more discrepancy for all the other domains. The main discrepancy is between teachers and school management teams since the latter do not believe practitioners have training needs for coordination. Interestingly, participants tend to believe that self-reflection competence is not as necessary as other competences more closely linked to classroom teaching. Apparently, there is a tendency to understand the teaching profession from a technical perspective rather than from a reflective one (Black & Wiliam, 1998; Schön, 1983). As for **organisational training needs**, like previous studies found (Durán-Martínez & Beltrán-Llervador, 2017; Pappa et al., 2017; Pena Díaz et al., 2005), teachers need more training on **coordination, CLIL implementation and interschool collaboration**. The analysis of teachers training needs draws three important conclusions: first, despite being integration CLIL's hallmark, no reference is made to curriculum integration and language integrated curriculum. Second, some of the perceived training needs vary over time

(Durán-Martínez et al., 2016; Lo & Macaro, 2015). Third, most of the identified needs are not specific of CLIL. Altogether, indicates that there is an urgent need to increase teachers' professional development (Lyster & Ballinger, 2011).

Consequently, some suggestions are made in terms of CLIL teacher education. **Initial teacher education should provide rich and varied experiences** so that student teachers can experience and learn the pedagogical and organisational conditions of quality learning (Conner & Sliwka, 2014; Darling-Hammond & Bransford, 2005), as well as develop CLIL teachers' competences and requisites (see table 17). Therefore, the curriculum should be revised and redesigned to foster integration and skills transfer (Rowe & Zegwaard, 2017). The overall aim of initial teacher education should be that pre-service teacher can acquire key competences so that they can later be able to contextualise and adapt those competences to the teaching context. **Ongoing development should provide specific training for CLIL implementation in the school and the classroom.** Thus, initial and ongoing development training should be carefully articulated (Caena, 2011). Ongoing training should be continuous so as to help schools to make informed decisions, implement, monitor and evaluate the project. The findings also suggest that school-based training appears to be more effective since the training is adjusted to how CLIL is implemented in a specific school and the training is based on existing practices (Black & William, 1998). Additionally, school-based training should be adjusted to the school's characteristics (level of complexity or experience with innovation projects). However, an important step is to **define CLIL teachers' profile.** In the context of this study, teachers are trained as specialists. Therefore, depending on the profile of the CLIL teacher (content or foreign language teachers), teacher education will vary considerably.

One of the main contributions of this research is the analysis of school management teams' training needs and education for CLIL because there is scarce research on the topic (Doiz & Lasagabaster, 2017; Laorden & Peñafiel, 2010; Soler et al., 2017). Even though school leaders and CLIL experts partially concur in the training needs identified, it appears that **school management teams have an insufficient understanding of CLIL, CLIL theoretical principles, project management and methodology.** These training needs are the result of the lack of training received for CLIL implementation. Consequently, participants believe that school management teams' training should be focused on defining CLIL and its theoretical principles, as well as developing project management competence. Ideally, **school management teams and in-service teachers' training should be articulated and school-based.** It is worth noting that curricular integration was hardly ever mentioned by the participants. A possible explanation is

that CLIL is seen as a language project whose main potentiality is students' foreign language learning by increasing their exposure to the target language. Moreover, the overall impression is that both teachers and school management teams have an insufficient mastery of organisational skills. Therefore, initial and ongoing teacher education should provide more training on school organisation.

The study also indicates that there are some conditions that favour not only CLIL implementation, but also its institutionalisation. **School-based conditions for CLIL conditions are leadership, needs analysis, planning, teacher qualification, coordination, curricular and organisational modifications, evaluation and interschool collaboration.** Even though these conditions are presented separately, they are interwoven and interrelated. That is, it is the interrelation of all these conditions and their alignment with the project's definition that can lead to successful CLIL implementation. Additionally, most of these conditions are necessary during the whole process, whereas other conditions will be necessary at the beginning (e.g. needs analysis) or towards the end (e.g. dissemination). However, there seems to be some barriers and threats that may challenge CLIL implementation. **The main barriers for CLIL implementation are teacher qualification, coordination, evaluation, but, above all, understanding that CLIL is a school's project that implies a revision of the curriculum and the role of language.**

Ongoing development and support are important, but equally important is that initial teacher education addresses these needs and prepares teachers to work integratively. Within the framework of this doctoral thesis, it was proposed a revision of initial teacher education, which was piloted. However, any revision should be institution-wide and involve as many university stakeholders as possible to ensure that the change embraces all levels (Rowe & Zegwaard, 2017). Competence-based approach appears to be an adequate approach for initial teacher education so that student teachers can experience integration and student-centred methodologies (Cano, 2015; de Miguel, 2006). Nevertheless, it is necessary that this approach is implemented in all courses. With regard to the piloted design, the findings suggest that the main strength is pre-service teachers' foreign language learning (Dafouz, 2014; Borràs, 2018) as well as content learning. The results seem to indicate that the experience had a positive effect on methodological and project management competence. However, further research is needed in order to conclude whether competence-based and CLIL approaches have a positive effect in initial teacher education.

Overall, CLIL is an educational approach with enormous advantages. However, this approach cannot be seen as an immediate and quick solution. “Fundamental change in education can be achieved only slowly –through programmes or professional development that build on existing good practice” (Black & Wiliam, 1998, p. 2). If the educational administration strongly believes that CLIL is the way to go, support and resources should be provided to all schools so that all primary students could benefit of this approach and, consequently, assure the equity principle. The solution to the challenges, which come together with CLIL implementation, may lie in the involvement and close collaboration of all the educational community. Even though school’s responsibility is to create the right organisational conditions for CLIL implementation, the Educational Administration, policies, Universities and other educational institutions and stakeholders must also support this process to ensure that the ultimate aim is attained: students’ learning.

8.3. Limitations

Despite this study offers valuable information on the current state-of-the-art of CLIL implementation and CLIL teacher education in Catalonia, the results must be interpreted with caution because there are some limitations that intervene in these results.

First, this study contrasted the perceptions of different stakeholders regarding CLIL teaching and implementation. However, these perceptions could not be contrasted with actual realisation of CLIL in the classroom or in the school. Despite the value of stakeholders’ perceptions, it could be that participants did not mention some training needs that they actually had because they were not aware of them (Montero, 1986).

Second, although the design of this thesis allowed to integrate the ideas that arose from the different studies, the opinion of all aspects could not be contrasted by all participants. For instance, participants from study 1 were not directly asked about school-based implementation. Moreover, contextual and systemic variables, as well as the current situation at the moment of data collection could have affected the results.

Thirdly, the number of participants per group and their profile may also hinder results’ generalisations. That is, the participants were from Catalonia, teacher students belonged to teacher education programmes of the University of Barcelona and, additionally, the number of participants for some groups (CLIL coordinators, Inspectors, Teacher trainers...) was small. Concretely, teacher students from study 1 were pre-service language primary and secondary teachers. However, the perceptions of content teachers could vary significantly. On the contrary,

the studies analysed in study 2 were language and content in-service teachers. Therefore, the variability of participants profile may have affected the results.

As for the study 3, despite the valuable support of the Educational Department to administer the questionnaire, it could also be that its participation determined school management teams' answers. Moreover, the number of school leaders that acceded to participate in the semi-structured interviews was small. In addition, it could be that the results are biased by the type of schools that freely acceded to participate. That is, it is believed that those schools that are more predisposed to research or were more confident on their CLIL project were the ones that acceded to participate. Since school leaders did not talk about curricular adaptations and integration, it should have been added a question that directly addressed this point. Moreover, school management teams' perceptions have been analysed through a questionnaire without going to the school setting, something that previous research has criticised (Hallinger & Leithwood, 1996).

With regard to study 4, although all autonomous communities more prompt to CLIL were included in the study, there were some communities that were underrepresented or that were not represented at all. Additionally, there were more participants from bilingual communities than monolingual.

Finally, study 5 presents some important limitations. First, the competence map should have been validated by some CLIL experts. Second, the experimental group had some initial characteristics that made that it could not be directly compared to the control groups. However, there is only one group per course in the double degree. Another important limitation is that each group (experimental and control) had different teachers who, at the same time, had different teaching experience at university level. In addition, each group had different teaching and assessment activities and the control groups from course 1 could not be followed in course 2. Ideally, a control group should have been received the contents in English. Nevertheless, according to the university regulations, only students in the double degree can receive content lessons in English. Another limitation is the number of filled questionnaires answered by the participants of the control groups. Furthermore, it is worth noting that this was an isolated experience that probably needed the active involvement of the institution to ensure its continuation. It is worth also noting that some of the evidences used to analyse this design were based on students' perceptions which could not necessarily be always aligned to reality. For this reason, students' perceptions were combined with marks.

Finally, both competence-based and CLIL approaches are wide approaches that are not clearly delimited. Consequently, it was more difficult to establish a theoretical framework that became a baseline for the research. All these limitations must be considered when interpreting the findings and analysing their scope because the limitations can intervene in the results presented in chapters 6 and 7.

8.4. Future Research

As noted along the discussion section, the results of this doctoral dissertation have left some unanswered questions that should be addressed in future research. Additionally, some of the findings have implications for educational policies and teacher education. For this reason, this section will be divided in three levels: Educational policies, teacher education and future research.

With regard to **educational policy**, it should be based on research evidence so that the promoted actions are aligned with previous knowledge and adjusted to the context (Dafouz, 2014). Additionally, it should be further studied what schools need in order to successfully implement and institutionalise a CLIL project and analyse how these needs should be addressed by the Administration. In addition, it should be thought what type of support should be provided in the meanwhile, while CLIL policies are not completely implemented. Moreover, CLIL teachers' profile should be further explored so as to define it and provide coherent teacher education.

On the other hand, it should be further studied whether schools participating in "Plurilingual Generation projects", or similar projects, sustain this project over time. In addition, the Educational Administration should rethink what requirements should schools meet so that participating in a project promoted by the Educational Administration help schools to analyse their current situation and establish their aims. Educational policies should also articulate mechanisms for institutional self-reflection and self-evaluation, as well as to establish systems to evaluate innovations. The Administration should offer teacher training adjusted to each moment of CLIL implementation (before deciding implementing CLIL, before implementing CLIL, during the process and to evaluate the project). Another line to be explored is how to assure the continuation of CLIL programmes from primary to secondary education. A possibility could be creating primary-secondary (Pri-IES) groups.

In terms of **teacher education**, it is essential that both initial and ongoing teacher education allow teachers to know and experience what integration is. Teacher competences should also be established so that they could be mapped and developed during teacher career. Consequently, it

should be agreed a competence framework that specified its components. Initial teacher education should work generic aspects through a competence-based approach so that teachers could later adapt, question and contextualised these contents. The findings reveal that teachers and school management teams have an incomplete mastery of organisational knowledge and competences. Therefore, more training should be offered in this line. Furthermore, it is necessary that initial teacher education addresses explicitly and implicitly, through practice, integration and, more specifically, curricular and language curriculum integration. Likewise, it should be analysed whether a CLIL proposal for Integrating Content and Language in Higher Education should be fostered in order to develop teacher students foreign language competence.

As for **school management teams' education**, it should be analysed whether current training programmes are qualifying school leaders to exercise a pedagogical leadership. Additionally, school management teams should receive specific training for CLIL implementation so that their decisions and actions could be based on evidences. Finally, CLIL teachers and school leaders' education should be articulated.

As for **future research**, several questions have arisen from this study:

- It should be studied CLIL teachers and school management teams training needs in the school setting.
- Additionally, it should be studied whether the needs of language and content teachers vary significantly and whether these needs vary depending on the content taught.
- Training needs relative to assessment in CLIL should be further analysed, as well as analysing how students are assessed.
- More research is needed in order to understand why there are discrepancies between teachers and school management teams' perceptions.
- Future studies should explore how CLIL and integration are conceptualised, as well as how the CLIL project is understood. Additionally, It should be studied how the curricular approach and design favour Content and Language Integration.
- It should be further analysed how CLIL is implemented in the school and the effects of different types of CLIL implementation on CLIL sustainability and students' outcomes.
- It should be studied school management teams' role in CLIL implementation, as well as analysing their training needs and the effect of the training received to lead the project. Future studies focused on school leaders should not only be based on perceptions.

Chapter 8. Conclusions

- Future research should explore whether individual teachers are given the responsibility to implement the CLIL project, especially when school management teams are not qualified for it and the school's level of complexity is moderate.
- It should be explored how teachers and school leaders understand collaboration, how collaboration is encouraged and applied in the schools. In addition, it should be studied how to move towards collaborative professionalism (Hargreaves & O'Connor, 2017).
- Future studies should explore school management teams' perceptions about CLIL and its implementation comparing those school leaders that have and have not been trained for CLIL.
- Another line of research is the analysis of the impact of school-based training on CLIL implementation in comparison to other training modalities.
- Another area of research is CLIL projects' evaluation; that is, it should be studied how CLIL projects are currently evaluated, what difficulties schools have to evaluate the CLIL project and how the results of the evaluation are used to improve.
- It should be analysed the characteristics of the schools and students that participate in CLIL. Especially, it should be studied whether CLIL is beneficial for students from deprived areas and if CLIL accelerates their learning (Levin, 1988).
- Future research should analyse whether Catalan schools integrate language curriculum independently that they have a CLIL project or not.
- Moreover, future research should analyse the effect of competence-based training and CLIL on pre-service teachers' competences development. However, this research should control for intervene variables such as different teachers teaching the experimental and control groups or students' profile.
- Finally, it should be further studied how teachers transfer this learning to their teaching practice or in other subjects so as to better understand why their perceived competence level decreased over time.

The conclusions presented, as well as the limitations outlined are the basis for the design of future research alignments. Additionally, the conclusions and limitations define the future lines of research in terms of CLIL teachers' pedagogical and organisational training needs and school-based CLIL implementation.

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Appendix

Appendix 1: Pre-service foreign language teachers' questionnaire

This questionnaire is part of a Master's dissertation which aims at analysing the training needs of pre-service foreign language teachers regarding CLIL teaching and learning.

This questionnaire has a total of three open questions and twenty-one closed questions. You will need around 15 minutes to answer it. It is anonymous and the information collected through this questionnaire is going to be used exclusively for this Master's dissertation.

Thank you for your collaboration.

A. QUESTIONNAIRE

1. In your opinion, what are the three main strengths of this pre-service programme for future foreign language teachers regarding CLIL teaching and learning? What are the three main weaknesses? Why?

2. Based on your experience, what do you think the main training needs of pre-service foreign language teachers are regarding CLIL teaching and learning? Why?

3. Based on your experience, how relevant is to develop the following competences in a pre-service training programme for future foreign language teachers regarding CLIL teaching and learning? Why?
(1-not relevant 6-extremely relevant)

	1	2	3	4	5	6	Why?
Communicative competence <i>(oral and written skills, interaction with the students, explanations in the foreign language)</i>							
Self-reflection competence <i>(ability to reflect on your own teaching practice, your past</i>							

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teaching and learning that...	level											
	1	2	3	4	5	6	1	2	3	4	5	6
9.promotes flexibility in using different teaching practices for different teaching situations.												
10.balances teacher-centred and student-centred learning.												
11.teaches me how to teach English for CLIL teaching and learning.												
12.teaches me foreign language testing and evaluations skills for CLIL teaching and learning.												
13.teaches me classroom management skills for CLIL teaching and learning.												
14.teaches me how to use foreign language teaching materials in CLIL programmes												
15.teaches me how to adapt foreign language teaching materials for CLIL programmes.												
16. increases my powers of self-evaluation.												
17.teaches me how to evaluate myself as a CLIL teacher.												
18.This programme is relevant for future CLIL teacher's needs.												
19.has a good balance between the teaching of: English, teaching skills and classroom management skills for CLIL teaching and learning and self-reflection abilities.												
20.prepares me to teach CLIL lessons in a real classroom.												

21. This programme meets my needs as a future CLIL teacher (1-Strongly disagree, 6 strongly agree)

1	2	3	4	5	6
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C. FURTHER INFORMATION

1. Would you like to further collaborate in this study by participating in a 10 minutes interview? If your answer is yes, please write down your email: _____
2. Would you like to receive information about the results obtained? If your answer is yes, please write down your email: _____

Thank you for your collaboration!

Appendix 2: Pre-service foreign language teachers' semi-structured interview

1. What characteristics does the ideal CLIL teacher have?
2. How far or close are you from this ideal CLIL teacher? Why?
3. Has this pre-service training programme helped you to get closer to the ideal CLIL teacher?
Why?

Appendix 3: Trainers, Inspectors and CLIL Coordinators' semi-structured interview

This questionnaire is part of a Master's dissertation which aims at analysing the training needs of pre-service foreign language teachers regarding CLIL teaching and learning. This study is a partial replication of Matthew Peacock (2009) study in which a foreign language teacher programme was analysed by the students enrolled in it and their professors. However, in the current study, students' perceptions and opinions are contrasted with professors and inspectors perspectives.

This questionnaire has a total of three questions: two open questions and one short question. You will need around 15 minutes to answer it. The information collected through this questionnaire is going to be used exclusively for this Master's dissertation. Thank you for your collaboration.

A. IDENTIFICATION INFORMATION:

1. Experience as a foreign language trainer (years):
2. Training programme (undergraduate programme/ Master's programme):
3. Which course do you teach?
4. Do you work as a CLIL trainer? If yes, for how long have you been working as a CLIL trainer?

B. QUESTIONNAIRE

1. In your opinion, which are the three main strengths of the pre-service programme for future foreign language teachers regarding CLIL teaching and learning? Which are the three main weaknesses? Why?

STRENGTH	WEAKNESSES
1.	1.
2.	2.
3.	3.

2. Based on your experience as a foreign language teacher trainer, which are the main training needs of pre-service foreign language teachers regarding CLIL teaching and learning? Why?

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3. Based on your experience as a foreign language teacher trainer, which relevance do you think the development of the following competences has in a pre-service training programme for future foreign language teachers regarding CLIL teaching and learning? Why?

(1-not relevant 6-extremely relevant)

	1	2	3	4	5	6	Why?
Communicative competence <i>(oral and written skills, interaction with the students, explanations in the foreign language)</i>							
Self-reflection competence <i>(reflect on your own teaching practice, your past experience as a learner...)</i>							
Methodological competence <i>(how to teach a foreign language, how to assess students' learning, the use and creation of materials, integrate content and language...)</i>							
Classroom management competence, <i>(grouping the learners...)</i>							
Other: <i>(specify)</i>							
Other: <i>(specify)</i>							

If you consider there are other training needs for pre-service foreign language teachers regarding CLIL teaching and learning, please specify.

If you would like to receive information about the findings, please write down your e-mail address: _____

Thank you for your collaboration

Appendix 4: Informed consent

Títol de l'estudi: Analitzar les necessitats formatives dels professors de llengua estrangera envers l'ensenyament-aprenentatge CLIL.

Investigadora: Laura Pons

L'objectiu d'aquest Treball Final de Màster (TFM) és analitzar les necessitats de formació inicial dels futurs mestres/professors de llengua estrangera que estaran en disposició d'impartir programes CLIL. Aquest estudi és una replica parcial de l'estudi realitzat per Matthew Peacock (2009) en el qual s'analitza un programa de formació per a professors de llengua estrangera. No obstant, en el present estudi, les percepcions i opinions dels estudiants es contrasten amb les dels professors/es universitaris i les dels inspectors/es d'ensenyament.

Aquesta entrevista serà gravada per poder ser analitzada posteriorment, però no serà publicada enlloc i es respectarà en tot moment l'anonimat del participant.

Autorització enregistrament

Sr./Sra. _____, amb número d'identificació _____ autoritzo l'enregistrament de l'entrevista.

_____, a _____ de _____ de 2015

Appendix 5: Categorisation study 1

Macrocategory 1. CLIL teachers' Competences	
CLIL teachers' competences are the abilities CLIL teachers have to develop to implement CLIL in the school and the classroom.	
Communicative Competence	It is the ability to communicate information and to adjust the language use to the communicative purpose and the audience. It also refers to the ability to use language to acquire and reflect on content.
Self-reflection Competence	It is the ability to self-assess the teaching practice, as well as to think about students' learning and teachers' role to self-regulate the teaching practice.
Methodological Competence	It is the ability to plan, design, implement and assess learning activities that encourage students' learning.
Classroom Management Competence	It is the ability to adjust the teaching and learning process to students' needs, motivations and interests.
Interschool Collaboration Competence	It is the predisposition to work and create a network with other schools that present similar characteristics or interests so as to learn from each other and improve the practices in the school.
Coordination Competence	It is the capacity to work with other teachers and stakeholders from the educational community to build up knowledge and improve the teaching practice.
Materials Development Competence	It is the ability to search, adapt and create materials and learning resources that allow students to achieve the learning outcomes.

Macrocategory 2. Content Knowledge.

It is the mastery of the content that is taught, as well as how to teach that content.

Macrocategory 3. Training needs.

Training needs are the group of problems, shortage and desires that teachers perceive they should know to teach. These training needs could be the result of the prescriptions from the Educational Administration or the perceptions raised from the analysis of their teaching practice.

Language knowledge	It is the knowledge and proficiency in the language skills of a given language
Language scaffolding	It is the support a more expert person gives to another so that this person can understand and use the language.
Understanding of CLIL approach	It refers to comprehend what integration is, how to integrate content and knowledge and what implications it has on teaching and the school.
Student-centred	It refers to those methodologies in which the student has an

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methodologies	active role building up and using this knowledge, as well as assessing their learning process.
Collaborative Learning	It is a methodological approach which main principle is that learning is the result of the active participation of all members of a group.
Content pedagogical knowledge	It is the theoretical knowledge that allows to know what and how to teach a content subject.
Dissemination	It refers to sharing the results of an innovative practice with other stakeholders from the educational community.
Networking	It refers to establishing a relationship with other schools or teachers that are doing a similar innovation or that have similar objectives to learn altogether.
School Organisation	It refers to the management and organisation of the resources (human, material and functional) depending on the school's goals.
Materials and learning resources adaptation	It is the difficulty to adapt already existing materials and learning resources to work language and content integratively.
Material and learning resources creation	It is the difficulty to create materials and learning resources to work language and content integratively.

Appendix 6: School Management Teams' Questionnaire

QÜESTIONARI EQUIPS DIRECTIUS DE CENTRES AMB UN PROJECTE CLIL

Aquest qüestionari forma part d'una tesi doctoral titulada "Condicions institucionals i relatives a la formació del professorat per a la implementació d'un projecte CLIL"

L'objectiu del present qüestionari és conèixer la percepció dels equips directius en relació a les seves necessitats de formació i les del professorat del centre per portar a terme un projecte CLIL (ensenyament d'una assignatura curricular en una llengua estrangera). Així mateix, també es pretén explorar quines condicions organitzatives del centre es deriven de la implementació d'un projecte CLIL.

Aquest qüestionari és anònim i les dades s'analitzaran globalment amb les obtingudes a altres centres educatius. Contestar-lo no li portarà més de 12 minuts.

Moltes gràcies per la seva col·laboració!

A. DADES D'IDENTIFICACIÓ

1. Municipi del centre:

2. Titularitat del centre (seleccioni una opció):

Públic

Concertat

Privat

Cooperativa

3. Nivell de complexitat del centre (seleccioni una opció, en el cas que no sigui privat):

Baix

Mitjà

Alt

4. Número de línies del centre:

5. Zona (seleccioni una opció): *(una zona és Urbana si té més de 15.000 habitants, semiurbana si té entre 2500 -14.999 habitants i rural si té menys de 2.499)*

Urbana

Semiurbana

Rural

6. Càrrec de gestió que ocupa (seleccioni una opció):

Director/a

Cap d'estudis

Secretari/ària

Altres

7. Total temps ocupat en un càrrec de gestió (especificar número d'anys en cada càrrec de gestió ocupat):

8. Número d'anys com a docent (seleccioni una opció):

Menys de 7

De 7 a 11 anys

De 12 a 19 anys

De 20 a 30 anys

Més de 30 anys

9. Número d'anys que es realitza el projecte CLIL al seu centre?

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10. Llengua amb la que s'imparteix el projecte CLIL al seu centre?
11. Participa o ha participat com a mestre/a del projecte CLIL? (Seleccioni una opció).

Sí, participo en l'actualitat com a mestre/a del projecte CLIL

Sí, he participat en el passat com a mestre/a del projecte CLIL.

No, no he participat mai com a mestre/a del projecte CLIL.

12. Nivell de llengua estrangera que poseeix (Seleccioni una opció):

Elemental (A2)	Intermedi baix (B1)	Intermedi alt (B2)	Avançat (C1)	Nadiu (C2)
-------------------	------------------------	-----------------------	--------------	------------

13. Posseeix algun certificat o títol oficial que acrediti el seu nivell de llengua estrangera? (Si s'escau, especifiqui quin)

14. Assignatura/es on s'imparteix CLIL al seu centre:

15. Número d'hores setmanals de CLIL al seu centre:

16. Curs/cursos on s'imparteix CLIL al seu centre:

B. QÜESTIONARI

1. En general, quin és el seu grau de satisfacció amb relació a la implantació i el desenvolupament del projecte CLIL del seu centre? (1- gens satisfet/a, 6- molt satisfet/a).

1	2	3	4	5	6
---	---	---	---	---	---

2. Quin és el seu grau de satisfacció relatiu als resultats d'aprenentatge obtinguts al projecte CLIL del seu centre (aprenentatge de la llengua i del contingut)? (1- gens satisfet/a, 6- molt satisfet/a).

1	2	3	4	5	6
---	---	---	---	---	---

B.1. ORGANITZACIÓ DEL CENTRE

1. Quines són les **principals adaptacions** que es van haver de realitzar per implantar el projecte CLIL? (1-gens d'acord, 6 –completament d'acord)

Ítems	1	2	3	4	5	6
Modificar l'assignació horària dels mestres.						
Modificar l'assignació de les assignatures entre el professorat.						

Incrementar el número de coordinacions i reunions per desenvolupar el projecte CLIL.						
Planificar i distribuir els continguts curriculars entre les assignatures implicades.						
Reelaborar el PEC i/o el projecte lingüístic per ajustar-lo al projecte CLIL.						
Modificar la metodologia d'ensenyament – aprenentatge.						
Establir nous sistemes d'avaluació.						
Establir canals de comunicació amb altres centres.						
Altres (especificar):						

2. Com s'organitzen ara els i les mestres a les classes on s'implementa el projecte CLIL? Com creu que s'haurien d'organitzar? (1- Mai, 6 – Sempre)

Organització	Com s'organitzen ara (situació real)						Com s'haurien d'organitzar (Situació ideal)					
	1	2	3	4	5	6	1	2	3	4	5	6
El mestre que no és de llengua estrangera surt de l'aula.												
El mestre que no és de llengua estrangera roman a l'aula com a suport.												
El mestre de llengua estrangera surt de l'aula.												
El mestre de llengua estrangera roman a l'aula com a suport.												
El mestre de llengua estrangera i el mestre de continguts treballen en equip (programen i imparteixen les sessions els dos).												
Un mestre especialista en llengua estrangera i en el contingut s'encarrega de l'assignatura CLIL.												
Altres (especificar):												

3. En relació al contestat a la pregunta anterior, per què es va elegir aquesta opció i no una altra? (Seleccioni l'opció i/o opcions que siguin certes per al seu centre).

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Ítem	
Era l'opció més factible.	
És la que promou un major aprenentatge a l'alumnat.	
És amb la que el mestre/s encarregat del seu desenvolupament se sentia més còmode.	
És el mestre més format per a l'ensenyament –aprenentatge CLIL.	
És la que ens va ser recomanada.	
És la més eficaç per a la integració de continguts i llengua.	
És la que utilitzaven altres centres.	
És la que apareixia als articles, llibres... que vam consultar.	
Altres (especificar):	

B.2. FORMACIÓ DE L'EQUIP DIRECTIU I DEL CLAUSTRE

1. Com a membre de l'equip directiu, ha rebut formació específica per adaptar l'organització del seu centre al projecte CLIL? (Seleccioni totes les opcions que siguin certes per a vostè).

Sí, he participat als cursos de formació realitzats al centre.	
Sí, a través del coordinador PILE/PELE del departament d'ensenyament.	
Sí, he participat a cursos de formació permanent del departament d'ensenyament, ICE, CRP...	
Sí, en la meua formació inicial (grau, màster, postgrau...).	
Sí, he assistit a jornades d'innovació docent.	
Sí, m'he format a partir de lectures, recerca...	
No, no he rebut cap formació específica.	
Altres (especificar).	

2. Segons la seva experiència, quins coneixements creu que són necessaris per facilitar als **equips directius** la gestió de projectes CLIL? En quin d'aquests àmbits considera que vostè necessita més formació? (1-cap formació, 6- molta formació).

Formació equips directius	Àmbits rellevants per als equips directius						Àmbits en els que necessita més formació					
	1	2	3	4	5	6	1	2	3	4	5	6
Fonaments teòrics i característiques dels projectes CLIL.												
Adaptació del projecte al centre i establiment de finalitats.												
Implantació i desenvolupament del projecte.												
Organització del professorat (coordinació, reunions,												

distribució de grups...).													
Adaptació del PEC i del projecte lingüístic del centre.													
Selecció i elaboració de recursos i materials didàctics.													
Domini de la llengua estrangera.													
Coneixements metodològics per a la integració de continguts i llengua.													
Establiment d'indicadors per analitzar i avaluar els resultats del projecte.													
Coneixement dels resultats de la recerca CLIL.													
Altres (especificar):													

3. Considera que la formació del **clastre actual de professors del seu centre** és suficient per portar a terme un projecte CLIL? Opina que haurien de rebre més formació respecte algun dels següents àmbits? (1- gens formació, 6- molta formació)

Formació clastre de professors	Formació actual del professorat						Aspectes en els que s'haurien de formar						
	1	2	3	4	5	6	1	2	3	4	5	6	
Fonaments teòrics i característiques dels projectes CLIL.													
Adaptació del projecte al centre i establiment de finalitats.													
Implantació i desenvolupament del projecte.													
Organització del professorat (coordinació, reunions, distribució de grups...).													
Adaptació del PEC i del projecte lingüístic del centre.													
Selecció i elaboració de recursos i materials didàctics.													
Domini de la llengua estrangera.													
Coneixements metodològics per a la integració de continguts i llengua.													
Establiment d'indicadors per													

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analitzar i avaluar els resultats del projecte.													
Coneixement dels resultats de la recerca CLIL.													
Altres (especificar):													

4. De quina manera el centre facilita aquesta formació al professorat? (seleccioni totes les opcions que consideri necessàries)

Informa de cursos específics.	
Facilita l'assistència en hores de feina.	
Organitza trobades i/o intercanvis al propi centre.	
Organitza cursos de formació al propi centre.	
Promou el contacte amb els coordinadors PELE/PILE del departament d'ensenyament.	
Reorganitza els grups per promoure estades a l'estranger.	
Facilita el contacte amb altres centres que estan implementat CLIL.	
El centre no facilita la formació.	
Altres (especificar):	

5. Considera que és necessari alliberar als mestres involucrats en el projecte d'alguna tasca docent per tenir més temps per planificar, coordinar-se i treballar en equip? Arribats al cas, s'allibera a aquests mestres d'hores de classe? (Triï l'opció que sigui certa per al seu centre).

Sí, i se'ls allibera d'alguna tasca.	
Sí, però no se'ls allibera d'alguna tasca.	
No, i no se'ls allibera de cap tasca.	
No, però se'ls allibera d'alguna tasca	

C. OPINIÓ

1. Quins aspectes li agradaria que milloressin en el futur respecte al desenvolupament del projecte CLIL al seu centre? (seleccioni tots les opcions que consideri necessàries).

La formació del professorat.	
La formació de l'equip directiu.	
Els recursos humans.	
Els recursos materials.	
La coordinació entre els diversos centres.	
La gestió del projecte.	
La coordinació entre els mestres.	
El grau de coneixement del projecte per part de tot el professorat.	
L'ajuda del departament d'ensenyament.	
Altres (especificar):	

2. Creu que la introducció del projecte CLIL ha tingut un impacte positiu en el seu centre?

Sí	
No	

Destaquí els tres elements més positius que aquest projecte a generat al seu centre.

Moltes gràcies novament per la seva col·laboració. Si té algun dubte o pregunta pot contactar a lponsseg8@ub.edu

Si desitja seguir col·laborant amb aquesta investigació, escrigui el seu correu electrònic:

Si desitja rebre informació sobre els resultats obtinguts a través d'aquest qüestionari, escrigui el seu correu electrònic:

Moltes gràcies per la seva col·laboració!

Appendix 7: Validation template for School Management Teams' Questionnaire

PAUTA VALIDACIÓ QÜESTIONARI EQUIPS DIRECTIUS

La següent pauta té per objectiu validar un qüestionari per a equips directius de centres que actualment tenen un projecte CLIL. El qüestionari pretén explorar les necessitats de formació i d'organització que perceben els equips directius en relació a l'ensenyament –aprenentatge CLIL.

Per poder validar aquest qüestionari és necessari que valori la rellevància i la intel·ligibilitat de cada pregunta/ítem (marcar amb una creu si creu que és molt, força, poc o gens rellevant/intel·ligible). Així mateix, pot fer les observacions que consideri oportunes. També pot proposar aspectes que no apareixen al qüestionari però que opini que, per la seva rellevància, haurien d'estar presents. Les àrees ombrejades amb gris fosc i amb negreta són el títols de secció i, per tant, no s'han de contestar. Les àrees ombrejades amb gris clar indiquen que és una pregunta amb subapartats. Finalment, necessitaria que respongués el qüestionari i indiqués aproximadament quant de temps ha necessitat.

Si té algun dubte es pot posar en contacte amb mi a lponsseg8@ub.edu

Moltes gràcies per la seva ajuda i col·laboració!

Pregunta/ítem	Rellevància de la pregunta/ítem					Intel·ligibilitat de la pregunta/ítem				
	Molt	Força	Poc	Gens	Observacions	Molt	Força	Poc	Gens	Observacions
A.DADES D'IDENTIFICACIÓ										
1.Municipi del centre										
2.Titularitat del centre										
3.Nivell de complexitat del centre										
4. Número de línies del centre										
5. Zona (seleccioni una opció):										
6. Càrrec de gestió que ocupa										
7. Total temps ocupat en un càrrec de gestió										
8.Número d'anys com a docent										

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9. Llengua amb la que s'imparteix el projecte CLIL al seu centre?										
10. Participa o ha participat com a mestre/a del projecte CLIL?										
11. Nivell de llengua estrangera que posseeix										
12. Posseeix algun certificat o títol oficial que acrediti el seu nivell?										
13. Assignatura/es on s'imparteix CLIL al seu centre										
14. Número d'hores setmanals de CLIL al seu centre										
15. Curs/cursos on s'imparteix CLIL al seu centre										
Pregunta/ítem	Rellevància de la pregunta/ítem					Intel·ligibilitat de la pregunta/ítem				
	Molt	Força	Poc	Gens	Observacions	Molt	Força	Poc	Gens	Observacions
B. QÜESTIONARI										
1. En general, quin és el seu grau de satisfacció en relació a la implantació i desenvolupament del projecte CLIL del seu centre?										
2. Quin és el seu grau de satisfacció relatiu als resultats obtinguts al projecte CLIL del										

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seu centre?										
B.1. ORGANITZACIÓ DEL CENTRE										
<i>1. Quines són les principals adaptacions que es van haver de realitzar per implantar el projecte CLIL?</i>										
1.1.Modificar l'assignació horària dels mestres.										
1.2.Modificar l'assignació de les assignatures entre el professorat										
1.3.Incrementar el número de coordinacions i reunions per desenvolupar el projecte CLIL.										
1.4.Planificar i distribuir els continguts entre les assignatures implicades.										
1.5.Reelaborar el PEC per ajustar-lo al projecte CLIL.										
1.6. Reelaborar el Projecte Lingüístic per ajustar-lo al projecte CLIL.										
1.7.Modificar la metodologia d'ensenyament –aprenentatge.										
1.8.Establir nous sistemes d'avaluació.										
1.9.Establir canals de										

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comunicació amb altres centres										
1.10. Altres (especificar):										
2. Com s'organitzen ara els i les mestres a les classes on s'implementa el projecte CLIL? Com creu que s'haurien d'organitzar?										
2.1. El mestre que no és de llengua estrangera surt de l'aula										
2.2. El mestre que no és de llengua estrangera roman a l'aula com a suport										
2.3. El mestre de llengua estrangera surt de l'aula										
2.4. El mestre de llengua estrangera roman a l'aula com a suport										
2.5. El mestre de llengua estrangera i el mestre de continguts treballen en equip (programen i imparteixen les sessions els dos)										
2.6. Un mestre especialista en llengua estrangera i en el contingut s'encarrega de l'assignatura CLIL.										
2.7. Altres (especificar):										

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3.Per què es va elegir aquesta opció i no una altra? (Seleccioni l'opció correcta).										
3.1.Era l'opció més factible										
3.2.És la que promou un major aprenentatge a l'alumnat										
3.3.És la que el mestre/s encarregat del seu desenvolupament se sentia més còmode										
3.4.És el mestre més format per a l'ensenyament –aprenentatge CLIL										
3.5.És la que ens va ser recomanada										
3.6.És la més eficaç per a la integració de continguts i llengua.										
3.7. És la que utilitzaven altres centres.										
3.8. És la que apareixia als articles, llibres... que vam consultar.										
3.9.Altres (especificar):										
4. Com es gestionen ara els diferents nivells i ritmes d'aprenentatge a l'aula? Com considera que s'haurien de										

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gestionar?										
4.1.L'alumnat amb necessitats d'aprenentatge no participa en el projecte CLIL										
4.2.Hi ha un mestre de suport a l'aula										
4.3.El mestre encarregat d'impartir CLIL realitza les adaptacions pertinents										
4.4.El mestre de continguts i el de llengua estrangera són els encarregats de gestionar els diferents nivells i ritmes.										
4.5.Altres (especificar):										
B.2. FORMACIÓ DE L'EQUIP DIRECTIU I DEL CLAUSTRE										
1.Com a membre de l'equip directiu, ha rebut formació específica per adaptar l'organització del seu centre al projecte CLIL?										
1.1. Sí, he participat als cursos de formació realitzats al centre										
1.2.Sí, a través del coordinador PILE/PELE del departament d'ensenyament.										
1.3.Sí, he participat a cursos de formació permanent del										

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departament d'ensenyament, ICE, CRP...										
1.4.Sí, en la meua formació inicial (grau, màster, postgrau...).										
1.5.Sí, he assistit a jornades d'innovació docent.										
1.6.Sí, m'he format a partir de lectures, recerca...										
1.7.No, no he rebut cap formació específica.										
1.8.Altres (especificar):										
2. Segons la seva experiència, quins coneixements creu que són necessaris per facilitar als equips directius la gestió de projectes CLIL? En quin d'aquests àmbits considera que necessita més formació?										
2.1.Fonaments teòrics i característiques dels projectes CLIL										
2.2.Adaptació del projecte al centre i establiment de finalitats.										
2.3.Implantació i desenvolupament del projecte										
2.4.Organització del professorat										

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(coordinació, reunions, distribució de grups...)											
2.5.Adaptació del PEC i del projecte lingüístic del centre.											
2.6.Selecció i elaboració de recursos i materials didàctics											
2.7.Domini de la llengua estrangera											
2.8.Coneixements metodològics per a la integració de continguts i llengua.											
2.9.Establiment d'indicadors per analitzar i avaluar els resultats del projecte.											
2.10.Contacte amb altres centres per compartir experiències i resultats											
2.11Coneixement dels resultats de la recerca CLIL											
2.12Altres (especificar):											
3. Considera que la formació del clastre de professors és suficient per portar a terme un projecte CLIL? Opina que haurien de rebre més formació respecte algun dels següents àmbits?											
3.1.Fonaments teòrics i											

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característiques dels projectes CLIL										
3.2.Adaptació del projecte al centre i establiment de finalitats.										
3.3.Implantació i desenvolupament del projecte										
3.4.Organització del professorat (coordinació, reunions, distribució de grups...)										
3.5.Adaptació del PEC i del projecte lingüístic del centre.										
3.6.Selecció i elaboració de recursos i materials didàctics										
3.7.Domini de la llengua estrangera										
3.8.Coneixements metodològics per a la integració de continguts i llengua.										
3.9.Establiment d'indicadors per analitzar i avaluar els resultats del projecte.										
3.10.Contacte amb altres centres per compartir experiències i resultats										
3.11Coneixement dels resultats de la recerca CLIL										
3.12Altres (especificar):										

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4.De quina manera el centre facilita aquesta formació al professorat? (seleccioni totes les opcions que consideri necessàries)										
4.1.Informa de cursos específics										
4.2.Facilita l'assistència en hores de feina										
4.3.Organitza trobades i/o intercanvis al propi centre										
4.4.Organitza cursos de formació al propi centre										
4.5.Promou el contacte amb els coordinadors PELE/PILE del departament d'ensenyament										
4.6.Reorganitza els grups per promoure estades a l'estranger										
4.7.Facilita el contacte amb altres centres que estan implementat CLIL.										
4.8.El centre no facilita la informació.										
4.8Altres (especificar):										
B.3. RECURSOS HUMANS										
1.La dedicació horària d'un mestre involucrat a un projecte CLIL en relació a un docent que										

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no ho està és:										
1.1.Major dedicació que en altres projectes.										
1.2.Mateixa dedicació que en altres projectes.										
1.3.Menor dedicació que en altres projectes.										
1.4.Major dedicació que un mestre no involucrat en cap projecte.										
1.5.Mateixa dedicació que un mestre no involucrat en cap projecte.										
1.6.Menor dedicació que un mestre no involucrat en cap projecte.										
2. Considera que és necessari alliberar als mestres involucrats en el projecte d'alguna tasca docent per tenir més temps per planificar, coordinar-se i treballar en equip? Arribats al cas, s'allibera a aquests mestres d'hores de classe?										
2.1.Sí, i se'ls allibera d'alguna tasca.										
2.2.Sí, però no se'ls allibera d'alguna tasca.										

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2.3.No, i no se'ls allibera de cap tasca.										
2.4.No, però se'ls allibera d'alguna tasca										
C. OPINIÓ										
1.Quins aspectes li agradaria que milloressin en el futur? (seleccioni tots els que consideri necessaris)										
1.1.La formació del professorat.										
1.2.La formació de l'equip directiu.										
1.3.Els recursos humans.										
1.4.Els recursos materials.										
1.5.La coordinació entre els diversos centres.										
1.6.La gestió del projecte.										
1.7.La coordinació entre els mestres.										
1.8.El grau de coneixement del projecte per part de tot el professorat.										
1.9.L'ajuda del departament d'ensenyament.										
1.10. Altres (especificar):										
2. Creu que el centre ha millorat amb la introducció del projecte? (sí/no) Destaquï els										

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tres elements més positius que aquest projecte a generat al seu centre.										
Propostes/observacions:										

Appendix 8: School Management Teams' Semi-Structured Interview (First Version)

GUIÓ ENTREVISTA EQUIPS DIRECTIUS

Aquesta entrevista forma part d'una tesi doctoral titulada "Condicions institucionals i relatives a la formació del professorat per a la implementació d'un projecte CLIL".

L'objectiu d'aquesta entrevista és conèixer la seva opinió respecte les necessitats de formació de centre i del professorat per portar a terme un projecte CLIL, així com quines condicions organitzatives de centre es deriven de la implementació i desenvolupament d'un projecte CLIL. La participació es voluntària i pot decidir parar quan ho desitgi o no respondre algunes preguntes.

Les dades obtingudes a través d'aquesta entrevista seran tractades globalment amb les dels altres centres educatius. Per tant, no tindrà cap conseqüència ni cap a la seva persona ni cap al seu centre i/o claustre de professorat. Els beneficis indirectes a respondre'l són poder disposar de més informació en relació a les necessitats dels centres que porten a terme aquest projecte i poder oferir una formació més ajustada a les característiques del projecte CLIL i a les necessitats dels centres. Així mateix, al finalitzar l'estudi, si així ho desitgen, se'ls podrà enviar els resultats generals obtinguts.

Moltes gràcies per la seva col·laboració!

PEL QUE FA A L'ORGANITZACIÓ:

1. Per què van decidir implementar un projecte CLIL al seu centre? Com es va realitzar el procés d'implementació del projecte?
2. Quines implicacions va tenir i té en l'actualitat per al seu centre la introducció d'aquest projecte? (a nivell curricular, d'organització del professorat, de l'alumnat, establiment d'indicadors...).
3. Com s'han coordinat a nivell de centre per implementar i desenvolupar el projecte CLIL? (rols, coordinació, reunions...)
4. Quines reptes planteja el desenvolupament i la continuïtat del projecte CLIL al seu centre? Com els fan front?
5. Com es fomenta la comunicació i la participació entre el professorat implicat? I amb la resta del claustre?
6. Des de l'equip directiu, com es fomenta el desenvolupament de noves idees, propostes i solucions? I com es vetlla perquè hi hagi congruència entre el que es ve fent, els principis de l'escola i aquestes noves propostes?
7. Quines estratègies s'utilitzen per implicar a tot el claustre i que totes les veus siguin escoltades?
8. Quins estratègies s'utilitzen a nivell de centre per difondre els resultats de la implementació i desenvolupament del projecte CLIL al seu centre?

PEL QUE FA A LA FORMACIÓ:

9. Quina formació han rebut els docents que imparteixen CLIL al seu centre? I la resta del professorat? (contingut i tipus de formació)
10. Quina formació li agradaria que rebessin? Com li agradaria que aquesta fos impartida?
11. Com a membre de l'equip directiu, ha rebut o rep algun tipus de formació respecte a CLIL i a la seva implementació? En què va consistir aquesta formació?/ En quins aspectes li agradaria poder formar-se? Com li agradaria que fos aquesta formació?
12. Quines experiències de formació considera que han tingut un impacte més positiu sobre el funcionament del projecte CLIL al seu centre?
13. Quines accions es realitzen a nivell de centre per oferir la formació CLIL al claustre?

PEL QUE FA ALS RESULTATS DEL PROJECTE:

14. Com valora els resultats obtinguts a nivell d'aprenentatge de llengua i de contingut una vegada implementat el projecte? Com s'avaluen els resultats del projecte?
15. Quins aspectes li agradaria que milloressin al seu centre pel que fa al projecte CLIL? Per què?
16. Si un centre es posés en contacte amb vostè perquè vol implementar un projecte CLIL: quines recomanacions li faria?

Appendix 9: Validation template for School Management Teams' Semi-Structured Interview.

PAUTA VALIDACIÓ GUIÓ ENTREVISTA EQUIPS DIRECTIUS

La següent pauta té per objectiu validar un guió d'entrevista per a equips directius de centres que actualment tenen un projecte CLIL (ensenyament d'una assignatura curricular, p.e. ciències, en una llengua estrangera). L'entrevista es realitzarà a membres d'equips directius que han col·laborat prèviament a l'estudi responnent un qüestionari. Per tant, l'objectiu de l'entrevista és comprendre la situació actual que han descrit a través del qüestionari.

L'objectiu general de la tesi és explorar i identificar les necessitats de formació dels docents i dels centres educatius que decideixen implementar un projecte CLIL, així com aquelles condicions institucionals que són favorables a la implementació del projecte i a la seva continuïtat.

Per poder validar aquest qüestionari és necessari que valori la rellevància i la intel·ligibilitat de cada pregunta/ítem (marcar amb una creu si creu que és molt, força, poc o gens rellevant/intel·ligible). Així mateix, pot fer les observacions que consideri oportunes. També pot proposar aspectes que no apareixen al qüestionari però que opini que, per la seva rellevància, haurien d'estar presents.

Moltes gràcies per la seva ajuda i col·laboració!

Si té algun dubte, pot contactar-me a lponsseg8@ub.edu

Pregunta	Rellevància				Intel·ligibilitat				Observacions
	Molt	Força	Poc	Gens	Molt	Força	Poc	Gens	
Pel que fa a l'organització del centre									
1. Per què van decidir implementar un projecte CLIL al seu centre? Com es va realitzar el procés d'implementació del projecte?									
2. Quines implicacions va tenir i té en l'actualitat per al seu centre la introducció d'aquest projecte? (a nivell curricular, d'organització del professorat, de l'alumnat, establiment d'indicadors...).									
3. Com s'han coordinat a nivell de centre per implementar i desenvolupar el projecte CLIL?									

Appendixes

(rols, coordinació, reunions...)									
4.Quines reptes planteja el desenvolupament i la continuïtat del projecte CLIL al seu centre? Com els fan front?									
5.Com es fomenta la comunicació i la participació entre el professorat implicat? I amb la resta del claustre?									
6.Des de l'equip directiu, com es fomenta el desenvolupament de noves idees, propostes i solucions? I com es vetlla perquè hi hagi congruència entre el que es ve fent, els principis de l'escola i aquestes noves propostes?									
7.Quines estratègies s'utilitzen per implicar a tot el claustre i que totes les veus siguin escoltades?									
8.Quines estratègies s'utilitzen a nivell de centre per difondre els resultats de la implementació i desenvolupament del projecte CLIL del seu centre?									
Pel que fa a la formació									
9.Quina formació han rebut els docents que imparteixen CLIL al seu centre? I la resta del professorat? (contingut i tipus de formació)									
10.Quina formació li agradaria que rebessin? Com li agradaria que aquesta fos impartida?									
11.Com a membre de l'equip directiu, ha rebut o rep algun tipus de formació respecte a CLIL i a la seva implementació? En què va consistir aquesta formació?/ En quins aspectes li agradaria poder formar-se? Com li agradaria que fos aquesta formació?									
12. Quines experiències de formació considera que han tingut un impacte més positiu sobre el funcionament del projecte CLIL al seu centre?									
13. Quines accions es realitzen a nivell de centre per oferir la formació CLIL al claustre?									
Pel que fa als resultats del projecte									

School-based Conditions and Teacher Education for CLIL Implementation

14. Com valora els resultats obtinguts a nivell d'aprenentatge de llengua i de contingut una vegada implementat el projecte? Com s'avaluen els resultats del projecte?									
15. Quins aspectes li agradaria que milloressin al seu centre pel que fa al projecte CLIL? Per què?									
16. Si un centre es posés en contacte amb vostè perquè vol implementar un projecte CLIL: quines recomanacions li faria?									
Altres:									

Appendix 10: School Management Teams' Semi-Structured Interview (Final Version)

GUIÓ ENTREVISTA EQUIPS DIRECTIUS

Aquesta entrevista forma part d'una tesi doctoral titulada "Condicions institucionals i relatives a la formació del professorat per a la implementació d'un projecte CLIL".

L'objectiu d'aquesta entrevista és conèixer la seva opinió respecte les necessitats de formació de professorat i dels equips directius per portar a terme un projecte CLIL, així com quines condicions organitzatives són favorables a la implementació i desenvolupament d'un projecte CLIL. La participació es voluntària i pot decidir parar quan ho desitgi o no respondre algunes preguntes.

Les dades obtingudes a través d'aquesta entrevista seran tractades globalment amb les dels altres centres educatius. Per tant, no tindrà cap conseqüència ni cap a la seva persona ni cap al seu centre i/o claustre de professorat. Els beneficis indirectes a respondre'l són poder disposar de més informació en relació a les necessitats dels equips que porten a terme aquest projecte i poder oferir una formació més ajustada a les característiques del projecte CLIL i a les necessitats. Així mateix, al finalitzar l'estudi, si així ho desitgen, se'ls podrà enviar els resultats generals obtinguts.

Moltes gràcies per la seva col·laboració!

PEL QUE FA A L'ORGANITZACIÓ:

- A. Per què van decidir implementar un projecte CLIL al seu centre? Com es va realitzar el procés d'implementació del projecte? Com valora aquest procés?
- B. Quines implicacions va tenir i té en l'actualitat per al seu centre la introducció d'aquest projecte? (a nivell curricular, d'organització del professorat, de l'alumnat, establiment d'indicadors...).
- C. En general, quines accions portades a terme fins al moment han ajudat a crear les condicions favorables per a què el projecte CLIL s'implementi de manera eficient i satisfactòria?
 - a. Quines accions de coordinació han promogut la implementació i el desenvolupament del projecte CLIL? Com s'han dut a terme aquestes accions? (rols, coordinació, reunions...)
 - b. Quines accions es porten a terme per fomentar la participació i la comunicació del professorat CLIL, del claustre i de les famílies? Quin impacte té això sobre el desenvolupament del projecte?
 - c. Des de l'equip directiu, com es fomenta el desenvolupament de noves idees, propostes i solucions? I com es vetlla perquè hi hagi congruència entre el que es ve fent, els principis de l'escola i aquestes noves propostes?

- D. Quines estratègies s'utilitzen a nivell de centre per difondre els resultats de la implementació i desenvolupament del projecte CLIL al seu centre? Quin impacte té això sobre el desenvolupament del seu projecte?

PEL QUE FA A LA FORMACIÓ:

- E. Quina formació han rebut els docents que imparteixen CLIL al seu centre? I la resta del professorat? (contingut i tipus de formació). Com valora aquesta formació?
- a. Quines experiències de formació considera que han tingut un impacte més positiu sobre el funcionament del projecte CLIL al seu centre? Per què?
 - b. En conjunt, quines competències creu que ha de desenvolupar el professorat per portar a terme un projecte CLIL? I els equips directius? Per què?
 - c. En quins àmbits li agradaria que es formés el seu claustre en relació al desenvolupament del projecte CLIL? D'on sorgeix la necessitat de formar-se en aquests àmbits? Com li agradaria que aquesta fos impartida?
- F. Com a membre de l'equip directiu, ha rebut o rep algun tipus de formació respecte a CLIL i a la seva implementació?
- a. En cas d'haver-la rebut, com valora aquesta formació?
 - b. Li agradaria rebre algun tipus de formació específica pel que fa al projecte CLIL? D'on emergeix aquesta necessitat?
 - c. En conjunt, quines competències creu que han de desenvolupar els equips directius per portar a terme un projecte CLIL?
- G. Com valora el paper de l'administració i dels centres de formació pel que fa a l'oferta de formació i a l'adequació d'aquesta a les necessitats del professorat i de l'equip directiu?

PEL QUE FA ALS RESULTATS DEL PROJECTE:

- H. Considera que totes les accions portades a terme a nivell de centre han tingut un impacte sobre els resultats obtinguts a nivell d'aprenentatge de llengua i de contingut dels estudiants? Per què?
- a. Quines accions es realitzen a nivell de centre per oferir la formació CLIL al claustre? Quin impacte tenen en el desenvolupament del projecte?
 - b. En general, quin creu que ha estat el paper de la direcció en la implementació i desenvolupament del projecte CLIL?
 - c. Quines reptes planteja el desenvolupament i la continuïtat del projecte CLIL al seu centre? Com els volen fer front?
- I. Si un equip directiu es posés en contacte amb vostè perquè vol implementar un projecte CLIL: quines recomanacions li faria en quant a les accions de caràcter organitzatiu que s'haurien de promoure per donar suport i acompanyament als mestres? I per donar informació a les famílies i a l'alumnat? Quin paper hauria de tenir l'equip directiu?

Appendix 11: Informed Consent for School Management Teams.

CONSENTIMENT INFORMAT ENTREVISTA

Jo, _____ (Nom i Cognoms) amb D.N.I _____ accepto participar voluntàriament a l'entrevista per a equips directius en el marc de la tesi doctoral 'Condicions institucionals i relativa a la formació del professorat per a la implementació de projectes CLIL'. La finalitat de l'entrevista és conèixer com el projecte CLIL es desenvolupa a diversos centres de Catalunya.

Signant aquest document, confirmo que he estat informat/da que l'entrevista serà enregistrada, la meva participació és voluntària i que la informació obtinguda a través de la entrevista serà tractada confidencialment. Així mateix, les dades obtingudes només podran ser utilitzades per als propòsits de l'esmentada tesi doctoral i les possibles publicacions acadèmiques derivades de la tesi

Finalment, he estat informat/da que com a participant puc decidir contestar o no una determinada pregunta, així com el moment en el que l'entrevista es vol finalitzar.

A _____, dia _____ del 2.016

Appendix 12: Categorisation of School Management Teams and CLIL experts' semi-structured interviews (First Version).

1. COLLABORATION WITH EXTERNAL AGENTS.

1.1. Other Schools.

1.1.1. Other Projects.

1.1.2. Exchange of experiences.

1.1.3. No collaboration.

1.1.4. Participation of students from other schools.

1.2. External Advice.

1.2.1. School- University.

1.3. Families.

1.3.1. Inform about the activities.

1.3.2. Support.

1.4. CLIL Platforms.

2. CLIL TEACHERS' COMPETENCES.

2.1. Generals for all teachers.

2.2. Generals for all teachers with some variations.

2.3. Language.

2.4. Methodology.

2.5. Digital.

2.6. Content knowledge.

2.7. Self-reflection.

2.8. Coordination.

2.9. Social

2.10. Assessment.

2.11. Project Management.

2.12. Classroom Management.

2.13. Research.

2.14. Ethical Commitment.

2.15. Materials development.

3. CLIL CONCEPTUALISATION.

3.1. Language Acquisition.

3.2. Translation to an additional language.

3.3. Teaching and learning Methodology.

3.4. Language Integrated Learning.

3.5. Content and language Integration.

4. RESULTS' DISSEMINATION.

4.1. Dissemination.

4.2. No dissemination.

4.3. Activities dissemination.

5. CLIL TEACHER

5.1. Language teacher.

5.2. Team-Teaching.

5.3. Content teacher.

5.4. Double specialist

5.5. Context.

5.5.1. *Primary Education.*

5.5.2. *Secondary Education.*

6. SCHOOL MANAGEMENT TEAMS TRAINING.

6.1. Content of training.

6.1.1. *CLIL Conceptualisation.*

6.1.2. *Leadership.*

6.1.3. *Theoretical Underpinnings.*

6.1.4. *Resources.*

6.1.5. *Research.*

6.1.6. *Evaluation.*

6.1.7. *Project Management.*

6.1.7.1. Project Adaptation.

6.1.7.2. Project design.

6.1.7.3. Time management.

6.1.7.4. Organisation.

6.2. Training Institution.

6.2.1. *Educational Department.*

6.3. Moment of training.

6.3.1. Before starting the project.

6.3.2. During the implementation.

6.3.3. At the end to institutionalise the project.

6.4. Training needs.

6.4.1. *Areas.*

6.4.1.1. Evaluation.

6.4.1.2. Research.

6.4.2. *Causes.*

6.4.2.1. Administration prescriptions.

6.4.2.2. Lack of knowledge.

6.5. Assessment of training.

6.5.1. *Positive.*

6.5.2. *Negative.*

7. TEACHER EDUCATION.

7.1. Area of Training.

7.1.1. *Assessment.*

7.1.2. *Content.*

7.1.3. *Coordination.*

7.1.4. *Digital.*

7.1.5. *Theoretical Underpinnings.*

7.1.6. *Classroom Management.*

7.1.7. *Language and Content integration.*

7.1.8. *Language.*

7.1.9. *Methodology.*

7.1.10. *Language Planning.*

7.1.11. *Research.*

7.1.12. *Language Integrated Learning.*

7.1.13. *Competence-based approach.*

7.2. Training institution.

7.2.1. *Educational Department.*

7.3. Training moment.

7.3.1. *Before deciding to start a CLIL project.*

7.3.2. *Before starting a CLIL project.*

7.3.3. *On Demand.*

7.3.4. *During the process.*

7.3.5. *At the end.*

7.3.6. *Initial teacher education.*

7.3.7. *Early Career.*

7.3.8. *Contextual variable.*

7.4. Training Needs.

7.4.1. *Causes.*

7.4.1.1. *New Demands.*

7.4.1.2. *Differences between L1 and L2 learning.*

7.4.1.3. *Specialisation.*

7.4.1.4. *Lack of references.*

7.4.1.5. *Ongoing development.*

7.4.1.6. *Generic training.*

7.4.1.7. *Homogenous training.*

7.4.1.8. *Initial teacher education.*

7.4.1.9. *Contextual variables.*

7.4.1.10. *Personal variables.*

7.4.2. *Area.*

7.4.2.1. *Assessment.*

7.4.2.2. *Coordination.*

7.4.2.3. *Content and Language Integration.*

7.4.2.4. *Language.*

7.4.2.5. *Methodology.*

7.4.2.6. *Language transfer.*

7.4.2.7. *Teamwork.*

7.4.3. *Common of any teacher.*

7.4.4. *Common to other CLIL contexts.*

7.5. Training Assessment.

7.5.1. *Positive.*

7.5.2. *Negative.*

7.6. Training Modality.

7.6.1. *Dual.*

7.6.2. *School-based training.*

7.6.3. *Online training.*

7.6.4. *Face-to-face training.*

7.6.5. *Workshops.*

7.7. Training Level.

7.7.1. *Being trained.*

7.7.2. *No CLIL training.*

7.8. Articulation of Teachers and School Leaders' Training.

7.8.1. *Together.*

7.8.2. *Coordinated.*

7.9. CLIL teachers' requisites.

7.9.1. *Self-reflection.*

7.9.2. *Content knowledge.*

7.9.3. *Theoretical underpinnings.*

7.9.4. *Language.*

7.9.5. *Methodology.*

7.9.6. *Teamwork.*

8. PROJECT MANAGMENT.

8.1. Project Adaptation.

8.1.1. *Project Definition.*

8.1.2. *School's Needs.*

8.1.3. *Human resources.*

8.1.4. *Material resources.*

8.1.5. *School identity traits.*

8.2. Adhesion to a project.

8.3. Evaluation.

8.3.1. *Needs Analysis.*

8.3.2. *Students' learning.*

8.3.3. *Control.*

8.3.4. *Evaluation indicators*

8.3.5. *Perceptions.*

8.3.6. *Monitoring the Actions.*

8.4. People in charge of CLIL management.

8.4.1. *School Management Team.*

8.4.2. *Driving group.*

8.5. Implementation.

8.5.1. *Teacher Education.*

8.5.1.1. Training resources.

8.5.2. *School Modifications.*

8.5.2.1. Common to other innovations.

8.5.2.2. Grades and stages.

8.5.2.3. No Common to other innovations.

8.5.2.4. Deep.

8.5.2.5. Superficial.

8.5.2.6. Type.

8.5.2.6.1. Students' grouping.

8.5.2.6.2. Assessment.

8.5.2.6.3. Coordination.

8.5.2.6.4. Curricular.

- 8.5.2.6.5. Classroom Management.
- 8.5.2.6.6. Schedule.
- 8.5.2.6.7. Language and Content Integration.
- 8.5.2.6.8. Methodology.
- 8.5.2.6.9. Teachers' organisation.
- 8.5.2.6.10. School's project.
- 8.5.2.6.11. Language project.
- 8.5.2.6.12. Teachers' profile.
- 8.5.2.6.13. Planning.
- 8.5.2.6.14. Language integrated curriculum.
- 8.5.2.6.15. Communication.

8.5.3. Reasons to implement CLIL.

- 8.5.3.1. Social Demands.
- 8.5.3.2. Equity.
- 8.5.3.3. Internationalisation.
- 8.5.3.4. Language improvement.

8.5.4. Reasons not to implement CLIL.

- 8.5.4.1. Lack of motivation.
- 8.5.4.2. Insecurity.

8.5.5. Planning the Actions.

8.5.6. Project Implementation.

8.6. Institutionalisation.

- 8.6.1. Dissemination.
- 8.6.2. Qualified teachers.
- 8.6.3. Expand the project.
- 8.6.4. Leadership
- 8.6.5. Participation of the teaching staff.

8.7. Resources.

- 8.7.1. Digital resources.

8.8. Evaluation of the process.

- 8.8.1. No evidences.
- 8.8.2. Negative.
- 8.8.3. Positive.

9. CLIL POTENTIALITIES.

9.1. Needs Analysis.

9.2. Language and Content Assessment.

9.3. Creativity.

9.4. Students' diversity.

9.5. Previous experience.

9.6. Learning improvement.

- 9.6.1. Content learning.
- 9.6.2. Language learning.

9.7. Awareness of language role.

9.8. Transfer of good practices.

10. Reference.

- 10.1. Barriers.**
- 10.2. Conditions.**
- 10.3. Measures.**
- 10.4. Challenges.**

Appendix 13: Explanation and justification of the changes made in the categorisation of school management teams and CLIL experts' semi-structured interviews.

Changes between version 1 and version 2:

The main changes made were the result of the revision and comments made by the thesis supervisor. The following changes were made:

- The categories were reorganised so that reading the categories can show a narrative discourse. Thus, the categories were organised as follows: 1) CLIL conceptualisation; 2) Potentialities; 3) Teachers' Competences; 4) Teacher and School leaders' training; 5) Organisational Conditions: Project management and organisation.
- The categories that referred to aspects that were not closely linked to the aims of this doctoral thesis were eliminated, such as activities not linked to CLIL.
- As for "CLIL teachers' competences" category:
 - This was included within "teacher education" category because it was considered that teacher education should be oriented towards the development of the competences identified. Therefore, the selection of the competence profile of CLIL teachers was necessary to offer training to teachers.
 - The competences were organised in: a) General for all teachers; b) General with some specifications for CLIL teachers; c) Specific of CLIL teachers.
 - Only were included those competences that were aligned with the definition of competence stated in the theoretical framework. Thus, all those aspects that were not a competence, such as content knowledge, were classified either as training needs or content of training, depending on the focus given by the interviewee.
 - When participants referred to an aspect or dimension of a competence as it was a competence (e.g. Students at the centre), these ideas were classified as an evidence of that competence (e.g. methodology).
 - Participants mentioned "adaptation to the context" as a competence. However, it could not be considered a competence, but as a characteristics of being competent. Therefore, it has not been included in "competences" category.
- As for "teacher education" category:
 - The category "training conditions" was included to encompass all contextual and teachers' personal variables that could determine the type of training.
 - Regarding "training needs", this category was divided in: a) causes; b) Area; c) Common (specifying what needs are considered common of all teachers); d) Specific of CLIL teachers (specifying what needs are considered specific of CLIL teachers); e) General to other CLIL contexts.
- The subcategory "training needs" of school management teams, the wording of the causes were changed: a) Prescriptive needs; b) Perceived needs. These change was made to show how school leaders expressed these needs.
- As for "Organisational Conditions" category:
 - This category was divided in: a) CLIL project management; b) Project organisation. This division was made to show that some of the aspects the participants referred to were

linked to project management and other to organisational aspects. Each of these categories included subcategories.

- It was decided to include the dissemination results within the subcategory “Evaluation” with the label “dissemination of evaluation results” because participants referred to the presence or absence of dissemination of the result obtained. “Evaluation” category was divided in: a) Type of evaluation; b) Dissemination of evaluation results.
- Regarding “modifications” subcategory, it was decided to specify what modifications were considered common to any innovation; no common to other innovations; what modifications were considered deep and what superficial.
- The modifications that affected to the same area were grouped. Thus, the subcategory “type of modifications” was grouped in: a) Curricular, which includes language and content integration and language integrated curriculum; b) official documents of the school: School project and Language project.
- The category “evaluation of the implementation” was included as a subcategory of “evaluation”.
- The category “collaboration with other agents” was included as a subcategory of “implementation”.

Changes between version 2 and version 3

The following modifications were the result of a second revision of the categorisation:

- The category “CLIL potentialities” was divided in: “CLIL potentialities” and “CLIL opportunities” because there were aspects that referred to CLIL strengths, but others referred to those processes that could be started as a result of implementing CLIL.
- The categories for the macrocategory “Teacher education” were reorganised so that the narrative discourse followed a logic sequence. The new organisation is as follows: 1) Teacher competences as a framework for teacher education; 2) Training requisites; 3) Training needs; 4) Training level; 5) Content of training; 6) Training conditions; 7) Training institution; 8) Moment of Training; 9) Training modality) 10) Training assessment; 11) Articulation of teachers and school leaders’ training.
- In the same line, the categories of the macrocategory “school management teams’ education” were reorganised. The new organisation is as follows: 1) Training needs of School management teams; 2) Content of training; 3) Training institution; 4) Moment of training; 5) Training modality; 6) Training evaluation.
- The wording of all the labels was revised aiming to make all categories selective.
- The category “Evaluation” was divided in “project evaluation” and “students’ learning evaluation”.
- The categories of the macrocategory “Organisational conditions” were modified. These macrocategory was divided in: 1) Conditions to implement CLIL; 2) Evaluation of the project; 3) Institutionalisation; 4) Collaboration with other stakeholders.
- Finally, all macrocategories and categories were defined again. The identified categories were defined inductively following these classification: macrocategory, category, subcategory and code.

Changes from version 3 to version 4

- “CLIL conceptualisation” macrocategory was subdivided in more general categories:
 - CLIL conceptualisation from a language perspective.
 - CLIL conceptualisation from a methodological perspective.
 - CLIL conceptualisation from an integrative perspective.
- The subcategory “Internationalisation” was included in the category “CLIL opportunities” because CLIL can motivate students’ mobility and internationalisation.
- The definition for “Project management as a general competence” was modified because it only referred to CLIL. This same change was applied to all the categories that referred to aspects that were not endemic or exclusively characteristics of CLIL.
- The category “Cause of teachers training needs” were reorganised into: a) Initial teacher education (Homogeneous training; generic training) and b) continuous training (Homogeneous training and generic training).
- The categories “teamwork” and “coordination” overlapped. Therefore, it was decided to choose “coordination” because it was a more inclusive category than teamwork and within its definition the idea of teamwork was included.
- The format of the definitions was unified so that there were greater coherence between them.

Changes made between version 4 and 5

After revising the fourth version, it was concluded that the categorisation was too long and, consequently, difficult to apply. For this reason, a new revision of the categorisation was made with the aim to reduce it. The version 5 is the start of this process which finished in version 6. The changes made were the following ones:

- The subcategory “causes of training needs” within the macrocategory “teacher education” was divided in individual, contextual and institutional.
- The subcategory “content of training” within the macrocategory “teacher education” was modified to reduce the number of codes. The codes were organised as follows:
 - Language knowledge as content of training.
 - Content knowledge as content of training.
 - CLIL principles as object of training.
 - Curriculum as object of training.
 - Organisation as object of training.
 - Use of ICT as object of training.
 - Research as object of training.
- The subcategory “training institution” from the macrocategories “teacher education” and “school management teams education” because this subcategory did not provide valuable information for the object of this doctoral thesis.
- As for “organisational conditions” macrocategory, the distinctions between superficial/ deep modification or common/ no common modifications were eliminated from the subcategory “modifications” because the information provided was reiterative. It will be

in the results sections where it will be explained that not all experts believed that all modifications were equally important or applicable to other contexts.

- The title of the subcategory “activities dissemination” within the macrocategory “organisational conditions” was modified because it was not clear enough. The new label was “dissemination of CLIL implementation”. The title of the subcategory “expand the project” was also modified for the same reason. The new title was “to transfer CLIL practices to other contexts”.

Changes made from version 5 to version 6

The sixth version of the categorisation culminated the process of reducing the number of categories to facilitate their application and data analysis. In line with the modifications made in the fifth version, the changes made were the following ones:

- The category “ethical potentialities” from the macrocategory “CLIL potentialities” was labelled as “democratisation of the access to additional languages” because it was considered that the new label illustrated better participants’ opinions.
- The categories from the macrocategory “Opportunities of CLIL” were revised to ensure that all categories were selective and clear.
- As for the macrocategory “teacher education”, the distinction between general competences and general competences with modifications was eliminated because, after revising the interviews, it was observed that the same competences appeared in both categories. The only difference was that participants believed that the content that conforms these competences could be different for CLIL and non-CLIL teachers. However, the competence was the same.
- The subcategory “causes of teachers’ training needs” from the macrocategory “teacher education” was modified. The causes were classified as prescriptive or perceived so as to follow the same classification used for school leaders.
- Regarding the subcategory “training needs for teachers” from the macrocategory “teacher education”, it was delated the distinction between general or CLIL-specific training needs because there were no differences between these two codes. Consequently, the categories were not selective. It will be explained in the results chapter that some participants believed that some of the training needs were specific of CLIL teachers. In addition, the label of the categories was modified to make them more generic and coherent with the modifications made in the fifth version of this document. The categories were modified as follows:
 - Language knowledge as a training need for teachers.
 - Content knowledge as a training need for teachers.
 - Curricular training needs for teachers.
 - Organisational training needs for teachers.

- The subcategories of “teachers’ training level” were reformulated in order to reduce them. The labels used were: a) CLIL training; b) participating in CLIL training; c) no CLIL training.
- The category “content of training” was deleted from the macrocategories “teacher education” and “school management teams education” because it overlapped with the category “CLIL competences”. Indeed, developing the competences should be the object of training. Additionally, there was no difference between the competences identified and the content of training.
- As for the category “training modality” within the macrocategory “teacher education”, the subcategories were revised to ensure that they actually referred to a training modality. After the revision, the categories established were: a) face-to-face; b) school-based; c) practical; d) theory-based.
- The categories from the macrocategory “school management teams training” were reorganised to ensure that the categories followed the same order as the ones in the macrocategory “teacher education”. The categories were organised as follows: 1) School management teams competences; 2) School management teams Requisites; 3) Training needs of school management teams; 4) Moment of training for school management teams; 5) training modality for school management teams; 6) Assessment of training.
- Following the same rationale as for the macrocategory “teacher education”, the category “object of training” was deleted because it overlapped with the category “Competences of school management teams”.
- The macrocategory “institutional conditions” was reorganised and the distinction between “conditions for the implementation” and “conditions for the institutionalisation” was deleted. This distinction was eliminated because the conditions that favoured CLIL implementation were the ones that led to its institutionalisation. Therefore, the macrocategory “Institutional conditions” included the following categories: 1) Leadership; 2) Needs Analysis; 3) Planning; 4) Staff involvement to implement CLIL in other scenarios; 5) Teacher qualification; 6) School modifications; 7) coordination; 8) Evaluation; 9) Collaboration with other institutions; 10) Dissemination.

Appendix 14: Categorisation and definition of the categories for school management teams and CLIL experts' semi-structured interviews (Final Version).

From the inductive analysis of the semi-structured interviews to school management teams and CLIL experts emerged seven macrocategories: 1) CLIL conceptualisation; 2) CLIL Potentialities; 3) CLIL opportunities; 4) CLIL teachers; 5) Teacher education; 6) School management teams education; and 7) Organisational Conditions. These macrocategories were divided in categories and subcategories, which were defined within the framework of this doctoral thesis.

With regard to the macrocategory **CLIL conceptualisation**, the following categories emerged:

Macrocategory CLIL conceptualisation
It is how school management teams and CLIL experts define and understand the CLIL approach.
Categories
CLIL conceptualisation from a language perspective: CLIL is defined as a teaching and learning approach to learn an additional language.
CLIL conceptualisation from a methodological perspective: CLIL is defined as a specific method to learn a language in natural contexts in which the student has an active role in the teaching and learning process.
CLIL conceptualisation from a content and language integration perspective: CLIL is defined as a teaching and learning approach that conceives content and language as inseparable and, consequently, they have to be taught and learnt integratively.

The macrocategory **CLIL potentialities** includes the following categories:

Macrocategory CLIL potentialities:
It refers to the strengths and advantages that directly derivate from CLIL implementations and development.
Categories
Curricular potentialities: It refers to the CLIL strengths and advantages regarding the integration of content from different subjects, the methodology and assessment.
Positive effects on students' learning: It refers to the positive impact CLIL has on students acquisition of an additional language, as well as on content learning and the learning processes.
Democratisation of foreign language learning: CLIL offers the opportunity to use and learn an additional language to all students independently of their socioeconomic or cultural characteristics or the school context.

The macrocategory **CLIL Opportunities** includes the following categories:

<p>Macrocategory CLIL Opportunities: It refers to the actions and benefits that can rise due to CLIL implementation.</p>
<p>Categories</p>
<p>Reflection on teacher practice and students' needs: It is the opportunity to analyse and become aware of the school's needs, students' individual differences and needs, as well as reflecting on teachers' role.</p>
<p>Transferring good practices to other scenarios: It is the opportunity to expand the integration of content and language to other areas and context that not necessarily use an additional language.</p>
<p>Improvement of students' motivation: It is the opportunity to increase the students' participation in their learning process as a result of using active and student-centred methodologies.</p>
<p>Teachers' coordination: It is the opportunity to encourage and increase teachers' collaboration between those practitioners who traditionally worked separately or in isolation.</p>
<p>Participate in a project from the Educational Department. It is the opportunity to participate in a project that is encouraged by the Educational Administration, sharing this process with other schools and taking advantage of the resources and support offered by the Administration.</p>
<p>Teacher training: It is the opportunity to improve and adjust teacher training to the school's needs and the new demands.</p>

The following categories are established for **CLIL teacher** macrocategory.

<p>CLIL teacher macrocategory: It refers to the profile and characteristics of the practitioner in charge of CLIL teaching and learning.</p>
<p>Categories</p>
<p>Language teacher: It is the primary teacher who has received training as generalist and has specialised in foreign language teaching and learning.</p>
<p>Content teacher: It is the primary teacher that has been trained as a generalist. In secondary education, it is the teacher who has received specific training in a content area.</p>
<p>Team-teaching: Team-teaching occurs when a language and a content teacher plan, teach and assess together some curricular contents.</p>
<p>Double specialist: It is a teacher who is qualified to teach a content and a foreign language subject.</p>
<p>Variable profile depending on the educational stage: It is the selection of teacher's profile depending on the educational stage in which the</p>

practitioner works (primary or secondary education).

As for **Teacher education** macrocategory, the following categories, subcategories and codes were established:

Teacher Education macrocategory:	
It refers to the training CLIL teachers should have to teach a content subject through an additional language. The competences, requisites and the training characteristics (modality, moment...) are included.	
Category	Subcategory
Teachers' competences as a reference for training: It refers to the knowledge, skills and attitudes CLIL teachers should have in order to integrate them to solve complex situation in a given context.	Self-reflection competence: It is the ability to identify and analyse the own teaching practice, teaching characteristics and areas of improvement.
	Assessment Competence: It is the ability to collect students' learning evidences to analyse them and make decisions.
	Materials Development Competence: It is the ability to access and select valuable learning resources, as well as to adapt them or create new ones adjusted to the educational goals.
	Classroom Management Competence: It is the ability to use strategies and resources to address students' individual characteristics, encourage their participation, collaboration and communication.
	Project Management Competence: It is the ability to create and sustain the organisational conditions to develop an innovation project, involve the educational community, as well as monitor the project.
	Methodological Competence: It is the ability to plan, design and implement teaching and learning activities adjusted to students and the context characteristics using the adequate teaching methods and strategies.
	Communicative Competence: It is the ability to communicate contents, as well as to create communicative situations that allow students to learn and use the language.
	Research Competence: It is the ability to be informed by the research findings and their consequences on the innovation carried out in the school. Additionally, it refers to the ability to evaluate the innovation project and disseminate its results.
	Digital Competence: It is the ability to use ICT in the teaching and learning process.
	Coordination Competence: It is the ability to work collaboratively with the other teachers and members of the educational community to improve the teaching and learning process.
Ethical Commitment Competence: It is the ability to establish relationships between teachers and students which are based on trust and empathy. It also refers to develop the teaching job according to the deontology code.	

	<p>Intercultural Competence: It is the ability to recognise and respect language diversity, as well as social language use in multilingual contexts.</p>		
<p>CLIL teachers' requisites. It refers to the necessary knowledge CLIL teachers should have to be competent and work in a CLIL setting.</p>	<p>Content knowledge as a requisite for CLIL teachers: it is the mastery of the content and the pedagogical content knowledge of the field of expertise.</p>		
	<p>CLIL theoretical underpinnings as a requisite for CLIL teachers: It is the knowledge about learning theories, second language theories that sustain the CLIL approach.</p>		
	<p>Language knowledge as a requisite for CLIL teachers: It is the mastery of the language skills.</p>		
	<p>Methodology as a requisite for CLIL teachers: It is the domain of different methods and strategies that allow to integrate content and language, as well as mastering language and content methodology.</p>		
<p>Teachers' training needs: They are the group of problems, shortage and desires that teachers perceive they should know or have to teach. These training needs could be the result of the prescriptions from the Educational Administration or the perceptions raised from the analysis of their teaching practice.</p>	<p>Cause: It refers to the reasons that explain why these training needs are identified.</p>	<p>Initial teacher education: It refers to the training needs that are the result of the insufficient training received on that aspect during initial teacher education.</p>	
		<p>Prescriptive Need: it is the training need that emerges as a result of the comparison between what one knows and what is demanded from the Educational Administration.</p>	
		<p>Perceived need: it is the training need that emerges as a result of total or partial impossibility to solve a situation during teaching practice.</p>	
	<p>Areas where training needs are identified: they are the areas in which training needs are identified.</p>	<p>Language knowledge as a training need: It is the training need that is related to the insufficient mastery of the additional language used for teaching and learning.</p>	
		<p>Content knowledge as a training need: It is the training need that is related to the insufficient knowledge of the content subject.</p>	
		<p>CLIL theoretical</p>	

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		<p>underpinnings as a training need: It is the training need related to the insufficient knowledge of learning theories and second language theories that are beyond CLIL.</p>
		<p>CLIL conceptualisation as a training need: It is the training need related the insufficient understanding of CLIL and its pedagogical and organisational implications.</p>
		<p>Curricular training needs: It refers to the insufficient knowledge on curricular integration, methodology and assessment.</p>
		<p>Organisational training need: it refers to the insufficient mastery on how to start and implement a CLIL project, on the necessary changes, the use of resources and the establishment of relationships with the educational community.</p>
	<p>Comparably to other contexts: It refers to the possibility of generalising the training needs identified for Catalan CLIL teachers to other contexts.</p>	<p>Comparable to other contexts: The training needs are common in other contexts.</p>
		<p>No comparable to other contexts: The training needs are endemic of the Catalan context.</p>
<p>Level of CLIL training: It is the qualification that CLIL teachers currently have for CLIL teaching and learning.</p>	<p>CLIL training: It refers to those teachers that have been trained for CLIL teaching and learnings.</p>	
	<p>Participating in CLIL training: It refers to those teachers that are currently participating in some form of CLIL training.</p>	
	<p>No CLIL training: It refers to those teachers that have not received any CLIL training.</p>	
<p>Training Conditions: It refers to the variables that should be considered when</p>	<p>Contextual variables: It refers to the conditions relative to the school's characteristics and needs.</p>	
	<p>Personal variables: It refers to the conditions relative to the individual characteristics of each teacher, their previous training and their needs.</p>	

designing a CLIL training proposal.	
Moment of training: It refers to the moment of CLIL implementation process in which teachers should be trained.	Before deciding to implement a project: It is the moment in which a school is thinking about implementing CLIL.
	Before starting the project: It is right before a school implements CLIL.
	During the process: It is the training offered as a support during the implementation process.
	At the end: It is the training that is offered when CLIL has been implemented to evaluate the process and provide support to institutionalise the project.
Training modality: It refers to the scenarios where training is provided.	Face-to-face: It is the training modality in which the training is offered physically.
	School-based training: It is the training modality that is offered in the same school and that is linked to the school educational project.
	Practical training: It is the training modality that aims to apply the theoretical content or that tries to infer the theory from practice.
	Theory based training: it is the training modality in which the trainers instructs the knowledge to the trainees.
Opinion about teachers' training for CLIL: It is the perception and satisfaction towards the training received.	Positive opinion about teachers' training for CLIL: It is perceived that the training received is adequate for the purposes it serves.
	Negative opinion about teachers' training for CLIL: It is perceived that the training received is not adequate for the purposes it serves.
Articulation of teachers and school management teams' training: It refers to how teacher and school management teams' training is conducted.	All together: It is when teachers and school management teams are trained at the same time and the training outcomes are the same for both groups.
	Coordinated: It is when teacher and school management teams' training is planned as a whole, but each group is not necessarily taught the same contents.

The macrocategory **School management teams education** includes the following categories, subcategories and codes:

Macrocategory School Management Teams' Education: It is the qualification that school leaders should have to implement and sustain a CLIL project in their school. Training includes the competences, training needs and, training characteristic (modality, moment...).	
Category	Subcategory
School Management teams competences as a reference	Project Management Competence for School Management Teams: It is the ability to create and sustain the organisational

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<p>for training: It refers to the knowledge, skills and attitudes CLIL teachers should have.</p>	<p>conditions to develop an innovation project, involve the educational community, as well as monitor and evaluate the project.</p>	
<p>School Management Teams' requisites. It refers to the necessary knowledge that school leaders should have to lead a CLIL project.</p>	<p>CLIL theoretical underpinnings as a requisite for school leaders: It is the knowledge about learning theories, second language theories that sustain CLIL approach.</p>	
	<p>CLIL conceptualisation as a requisite for school leaders: It is knowledge and understanding of CLIL and its pedagogical and organisational implications.</p>	
<p>School Management Teams Training Needs: It refers to the areas where teachers perceive they have an incomplete mastery.</p>	<p>Cause: It refers to the reasons that explain why these training needs are identified.</p>	<p>Prescriptive Need for school leaders: it is the training need that emerges as a result of the comparison between what one knows and what is demanded from the Educational Administration.</p>
		<p>Perceived need for school leaders: it is the training need that emerges as a result of total or partial impossibility to solve a situation during teaching practice.</p>
		<p>No previous training for school leaders: it is the training need that emerges as a result of not having received CLIL training.</p>
	<p>Areas where training needs are identified for school leaders: they are the areas in which training needs are identified.</p>	<p>CLIL theoretical underpinnings as a training need for school leaders: It is the training need related to the insufficient knowledge of learning theories and second language theories that are beyond CLIL.</p> <p>Curricular training needs for school leaders: It refers to the insufficient knowledge on curricular integration, methodology and assessment.</p>

		<p>Organisational training need for school leaders: it refers to the insufficient knowledge on how to establish the organisational conditions that favour the implementation and institutionalisation of CLIL.</p> <p>CLIL conceptualisation as a training need for school leaders: It is the training need related to the insufficient understanding of CLIL and its pedagogical and organisational implications.</p>
<p>Moment of training for school leaders: It refers to the moment of CLIL implementation process in which teachers should be trained.</p>	<p>Before starting the project for school leaders: It is right before a school implements CLIL.</p>	
	<p>During the process for school leaders: It is the training offered as a support during the implementation process.</p>	
	<p>At the end for school leaders: It is the training that is offered when CLIL has been implemented to evaluate the process and provide support to institutionalise the project.</p>	
<p>Training modality for school leaders: It refers to the scenarios where training is provided.</p>	<p>School-based training for school leaders: It is the training modality that is offered in the same school and that it is linked to the school educational project.</p>	
	<p>Practical training for school leaders: It is the training modality that aims to apply the theoretical content or that tries to infer the theory from practice.</p>	
	<p>Theory-based training for school leaders: it is the training modality in which the trainers instructs the knowledge to the trainees.</p>	
<p>Opinion about school leaders' training for CLIL: It is the perception and satisfaction towards the training received.</p>	<p>Positive opinion about school leaders' training for CLIL: It is perceived that the training received is adequate for the purposes it serves.</p>	
	<p>Negative opinion about school leaders' training for CLIL: It is perceived that the training received is not adequate for the purposes it serves.</p>	

Finally, the macrocategory **Organisational Conditions** is divided in the following categories, subcategories and codes:

Macrocategory Organisational Conditions:

It refers to the actions and situations that have to be created at the school level to implement a CLIL project and sustain it.

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Categories	Subcategories	Codis
Leadership: It is the condition of having a school management team or driving group that supports the implementation process involving all the teaching staff, bring new ideas and proposals together, propose solutions to problems and difficulties to ensure the implementation and sustainability of the innovation project.		
Needs Analysis: It is the initial evaluation that a school conducts to analyse the current situation and identify those aspects that have to be changed and improved.	Reasons to implement CLIL: It refers to the reasons why a school decides to start a CLIL project.	Institutional: It refers to the reasons that have their origin in the needs and aspiration of the school as a whole.
		Personal: It is when an innovative project is implemented because a single person wants to start it.
		Improve students' learning: It is when an innovation is implemented to improve students' outcomes.
		School's social responsibility: It is when an innovation is implemented to try to balance students' individual and contextual differences.
Planning actions: It is the process to identify the actions that have to be carried out and the sequence them to implement an innovation.	Project's Adaptation: It refers to the actions that should be carried out to adjust the innovation to the needs and characteristics of the school, as well as the school resources. In addition, it refers to sharing CLIL conceptualisation and its goals with the educational community.	
	People in charge of CLIL management: It refers to the group of people that encourage and manage CLIL implementation. The people in charge of CLIL management can be either the school management team or a driving group.	
Staff involvement and transference to other scenarios. It is the participation of all the teaching staff in the development and continuity of the innovation, as well as it is everyone's responsibility to ensure the transfer of the innovation to other subjects, groups or activities.		
Qualified teachers It refers to the actions conducted to train teachers within the new approach or to recruit teachers already trained.	Measures to train the teaching staff: it refers to the actions that make possible to train the teachers into the new approach.	
	Measures to recruit teachers that are trained in the CLIL approach. It refers to the school management team actions to incorporate new teachers to the school that are trained within the CLIL approach.	
School Modifications:	Curricular modifications: It refers to all the changes that are	

School-based Conditions and Teacher Education for CLIL Implementation

<p>It refers to the curricular and organisational changes conducted in a school as a consequence of implementing an innovation project.</p>	<p>made relative to curriculum organisation and management, methodology or assessment as a consequence of CLIL implementation.</p> <p>Organisational modifications: It refers to the changes that are made at the level of the organisation (school project, coordination...) to establish organisational conditions that favour CLIL implementation.</p>
<p>Coordination: it refers to the work teachers do before and after the lessons to plan and organise the teaching activity to foster students' learning.</p>	
<p>Evaluation: it is the collection and analysis of evidences about the project and students' learning to make some decisions.</p>	<p>Projects' Evaluation: It refers to the actions conducted to decide what data will be collected to evaluate the project functioning and how it will be analysed. Based on the analysis, some decisions are to be made to improve the project.</p> <p>Students' Assessment: It refers to using students' learning evidences to evaluate how the project is working.</p>
<p>Collaboration with other institutions: It refers to the networks established with other institutions and organisations with a CLIL project.</p>	
<p>Dissemination: It refers to the actions made to share the actions carried out in the school and the results obtained with the educational community.</p>	

Appendix 15: Documents provided to CLIL experts for semi-structured interviews.

ENTREVISTA EXPERTS

Aquesta entrevista forma part d'una tesi doctoral titulada "Condicions institucionals i relatives a la formació del professorat per a la implementació d'un projecte CLIL".

L'objectiu d'aquesta entrevista és, d'una banda, conèixer la seva opinió respecte a les necessitats de formació dels equips directius i del professorat per portar a terme un projecte CLIL, així com quines condicions organitzatives són favorables a la implementació i desenvolupament d'un projecte CLIL. D'altra banda, l'entrevista pretén conèixer la seva opinió respecte als resultats obtinguts a aquest estudi fins al moment.

Per això l'entrevista pretén explorar el seu parer sobre unes dades prèvies que ja s'han recollit i que s'envien adjuntes per a què pugui consultar-les, si li sembla oportú, amb el fi de comentar-les el dia de l'entrevista. Les dades que es presenten en aquest document s'han recollit a través de qüestionaris i entrevistes a mestres en formació inicial i mestres en actiu, equips directius, formadors CLIL, inspectors d'educació i coordinadors CLIL del Departament d'Educació.

Les dades obtingudes a través d'aquesta entrevista seran tractades globalment amb les d'altres experts i seran utilitzades exclusivament per a la tesi i per a publicacions d'àmbit acadèmic. Al finalitzar l'estudi, si així ho desitgen, se'ls podrà enviar els resultats generals obtinguts.

Moltes gràcies per la seva col·laboració!

Laura Pons (lponsseg8@ub.edu)

A. FORMACIÓ DEL PROFESSORAT

Necessitat de Formació	Formació Inicial	Docents amb poca experiència CLIL	Docents amb experiència CLIL
Importants	Llengua	Llengua	Llengua
	Metodologia	Metodologia	Metodologia
Moderades	Gestió de l'aula	Fonaments Teòrics	Fonaments Teòrics
	Contingut	Gestió del Projecte	Recerca
	Col·laboració amb altres centres		Avaluació
	Desenvolupament materials Treball en equip	Desenvolupament materials	Desenvolupament Materials

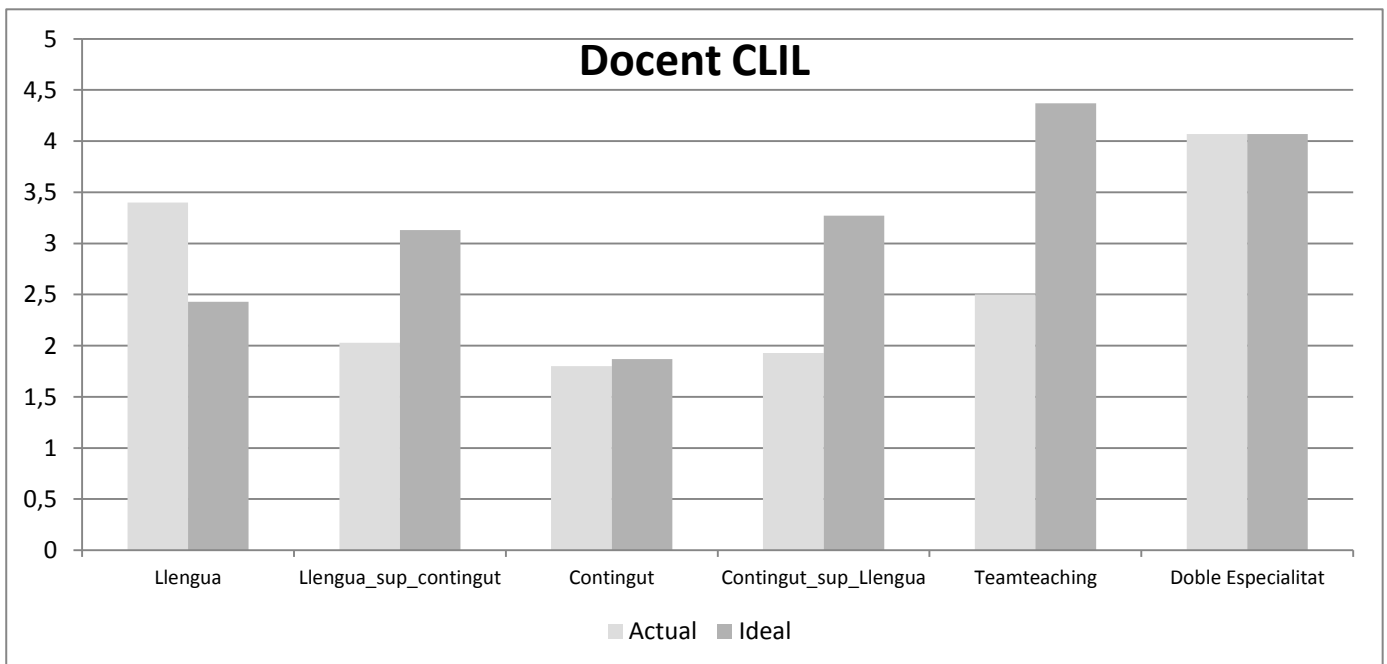
Taula 1. Relació de necessitats de formació percebudes pels docents.

B. COMPETÈNCIES

COMPETÈNCIES	DESTACADES PER
Competència d'autoreflexió	Formadors
Competència Lingüística	Mestres, Formadors, Equips directius, Inspectors, Coordinadors CLIL
Competència Metodològica	Mestres, Formadors, Equips directius, Inspectors, Coordinadors CLIL
Competència d'Avaluació	Equips Directius, mestres amb experiència
Competència de Recursos d'Aprenentatge	Mestres, Formadors, Equips directius, Inspectors, Coordinadors CLIL
Competència de Gestió de l'Aula	Mestres en formació inicial, formadors
Competència de Recerca	Mestres amb experiència
Competència de Gestió del Projecte CLIL	Equips directius, Coordinadors CLIL, formadors, Inspectors

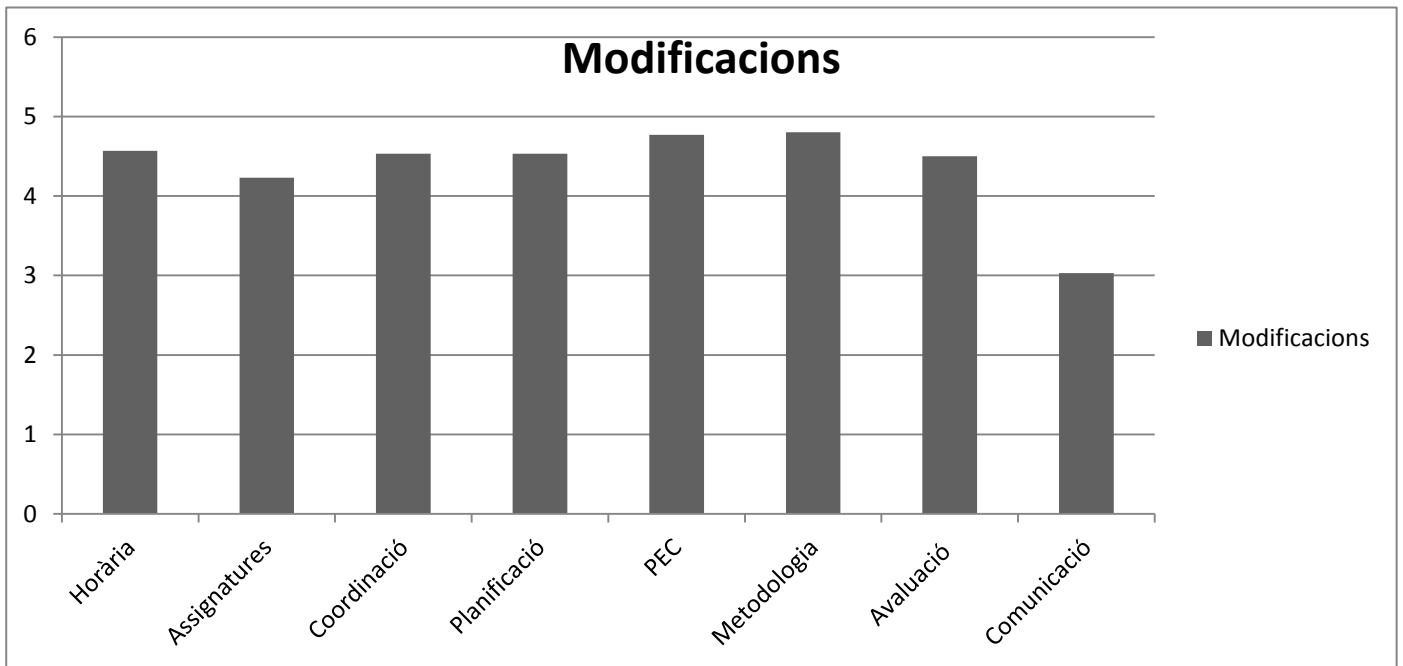
Taula 2. Competències identificades com rellevants per a un docent CLIL.

C. CONDICIONS ORGANITZATIVES RESPECTE ALS RECURSOS I LES ESTRUCTURES



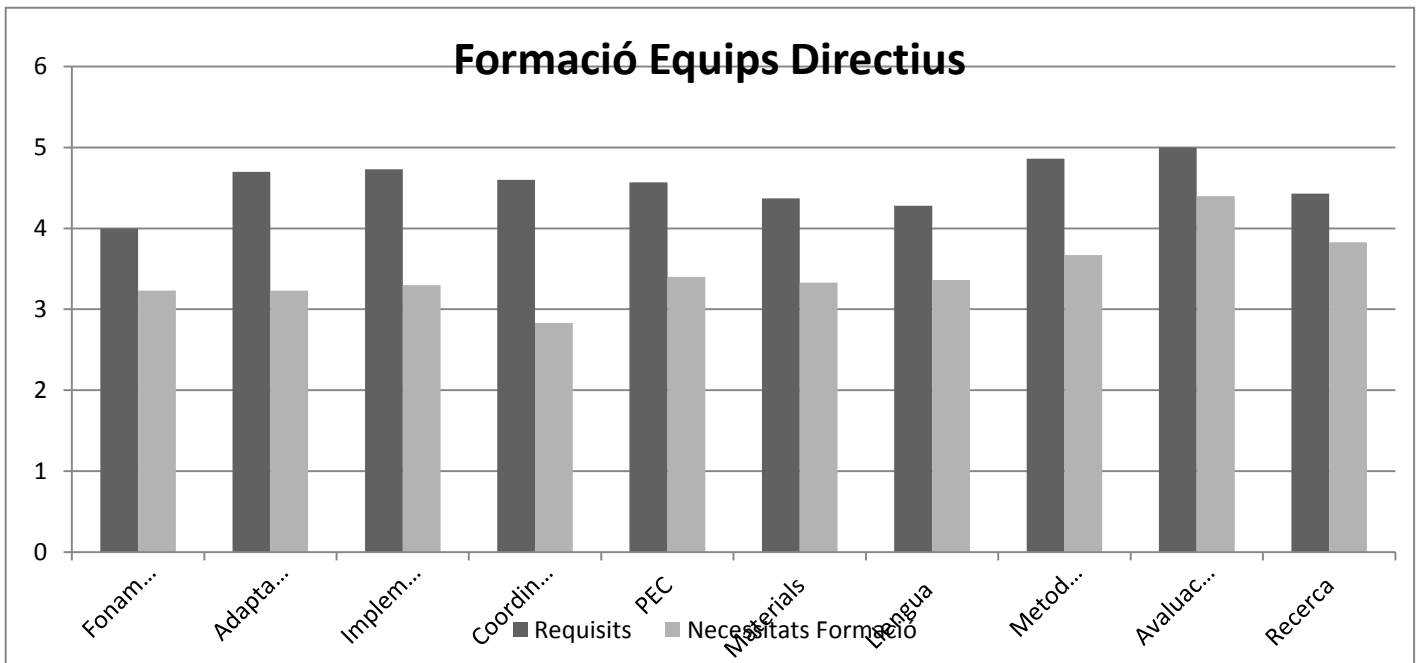
Gràfic 1. Opinió dels Equips Directius sobre qui ha de ser el Docent CLIL.

*Llengua (professor llengua estrangera); Llengua_sup_contingut (professor de llengua amb el suport del professor de contingut); Contingut (professor especialista en una àrea que no sigui de llengua); Contingut_sup_llengua (professors especialista en una àrea que no sigui de llengua amb el suport del docent de llengua estrangera); Teamteaching (el docent especialista en una àrea no lingüística i el de llengua estrangera són els responsables de CLIL); doble especialitat (un únic docent que és especialista en llengua estrangera i en una àrea no lingüística).



Gràfic 2. Modificacions que els Equips Directius perceben que s'han de realitzar a través de la implementació d'un projecte CLIL.

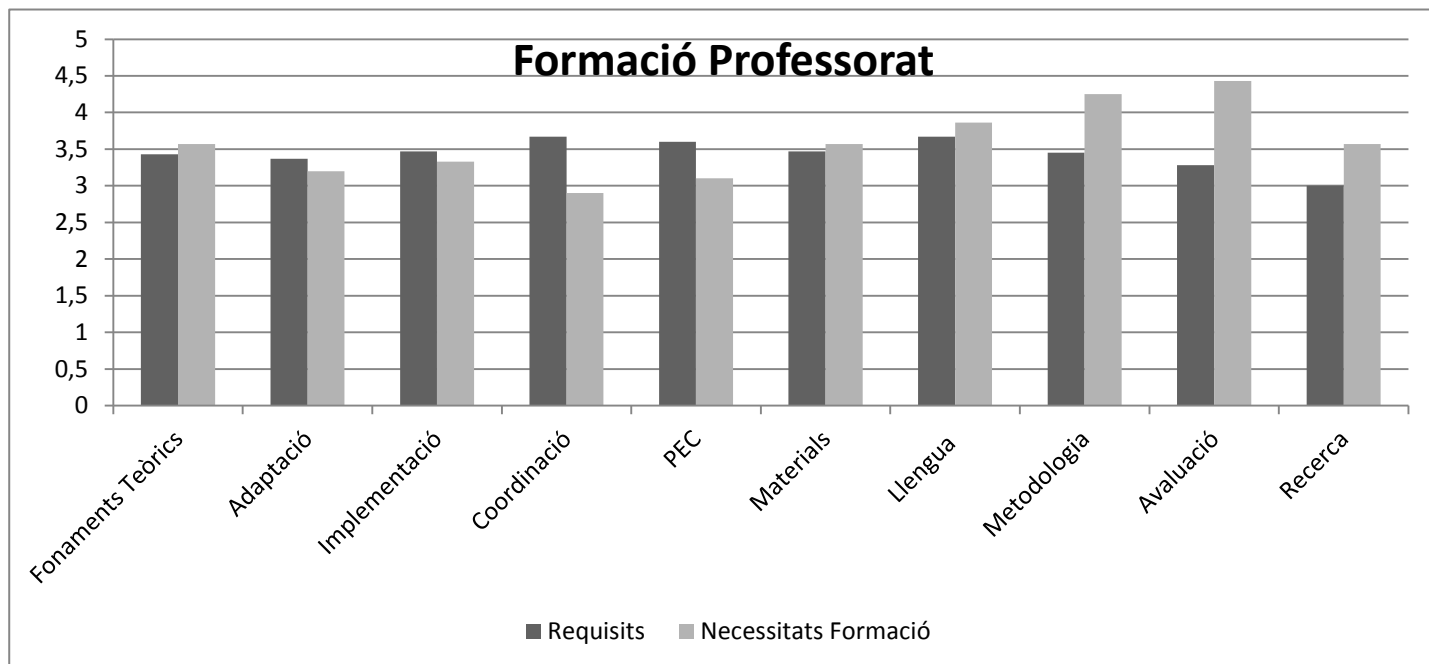
* Horària (assignació horària dels mestres); Assignatures (assignació de les assignatures); Coordinació (tipus i número de coordinacions); Planificació (Planificació i distribució dels continguts curriculars); PEC (reelaborar el PEC i el Projecte lingüístic); Metodologia (metodologia d'ensenyament –aprenentatge); Avaluació (sistema d'avaluació de l'alumnat); Comunicació (canals de comunicació amb altres centres)



Gràfic 3. Comparativa entre la formació que cal als equips directius per portar a terme un projecte CLIL i les necessitats de formació detectades.

*Fonaments teòrics (teories subjacents a CLIL); Adaptació (Adaptar el projecte al centre); Implementació (desenvolupament del projecte); Coordinació (organització del professorat); PEC (Adaptació del PEC i del Projecte Lingüístic); Materials (Selecció i elaboració de materials didàctics); Llengua (Domini de la llengua CLIL); Metodologia

(Coneixements metodològics); Avaluació (indicadors per avaluar el projecte); Recerca (coneixement dels resultats de la recerca CLIL).



Gràfic 4. Comparativa entre la formació que cal per portar a terme un projecte CLIL i necessitats de formació del professorat detectades.

*Fonaments teòrics (teories subjacents a CLIL); Adaptació (Adaptar el projecte al centre); Implementació (desenvolupament del projecte); Coordinació (organització del professorat); PEC (Adaptació del PEC i del Projecte Lingüístic); Materials (Selecció i elaboració de materials didàctics); Llengua (Domini de la llengua CLIL); Metodologia (Coneixements metodològics); Avaluació (indicadors per avaluar el projecte); Recerca (coneixement dels resultats de la recerca CLIL).

A. FORMACIÓ DEL PROFESSORAT
1.Són aquestes necessitats de formació pròpies dels docents CLIL o la implementació d'un projecte CLIL les accentua i les fa més evidents?
2.Es pot dir que aquestes necessitats són causades pel tipus de formació inicial rebuda?
3.Considera que aquests resultats són propis del context analitzat en aquest estudi, Catalunya, o, en general, són comuns als docents que imparteixen CLIL?
B. COMPETÈNCIES
4.Podria ordenar aquestes competències de més a menys rellevants per a un docent CLIL?
5. Considera que el contingut, la llengua i els fonaments teòrics són competències o requisits que ha de posseir el docent CLIL? Per què?
6. Quina diferència hi ha entre les competències que ha de posseir un docent CLIL i un que no

ho és?
C. CONDICIONS ORGANITZATIVES RESPECTE ALS RECURSOS I LES ESTRUCTURES
7. Comparteix l'opinió dels equips directius?
8. Comparteix les dades trobades? Considera que és més important fer modificacions de caire metodològic?
9. Creu que el fet que CLIL s'apliqui a un curs o a tota l'etapa pot influir en els canvis duts a terme? En quin sentit?
10. Considera que aquests resultats són propis únicament de l'establiment d'un projecte CLIL o són, si més no parcialment, comuns a l'establiment de qualsevol altre projecte d'innovació?
11. Està d'acord amb l'opinió dels equips directius pel que fa a la formació requerida i a les necessitats de formació actuals?
12. Quin tipus de formació haurien de rebre els equips directius per fer front a l'establiment i la continuïtat d'un projecte CLIL? I els docents?
13. En quin moment s'hauria de produir aquesta formació? Ha de ser prèvia a iniciar el projecte CLIL? En el moment que el centre decideix fer un projecte CLIL? Duran el procés com acompanyament?
14. Quan tindria sentit articular tota la formació, de docents i directius, entorn al projecte de formació en centres?
15. Quin paper tenen els equips directius en el desenvolupament d'un projecte CLIL a un centre educatiu de primària?
D. GENERAL
16. Quines considera que són les accions que s'han de portar a terme per millorar la formació del professorat i la implementació i el desenvolupament de projectes CLIL?
17. Actualment, quines dificultats plantegen els projectes CLIL? Per contra, quins avantatges i/o punts forts a mantenir o potenciar plantegen els projectes CLIL?
18. Desitja afegir alguna altra observació o comentari que no hagi estat tingut en compte?

Moltes gràcies per la seva col·laboració!

Appendix 16: Documents for the interviewer for CLIL experts' semi-structured interviews

GRÀFIC				TEXT	PREGUNTA	SUBPREGUNTA
FORMACIÓ DEL PROFESSORAT						
Necessitat de Formació	Formació Inicial	Docents amb poca experiència CLIL	Docents amb experiència CLIL	<p><i>Els estudiants de mestre de formació inicial consideren que tenen necessitats de formació importants pel que fa a la llengua i a la metodologia. També indiquen que necessiten més formació en gestió de l'aula, coneixement del contingut, col·laboració amb altres centres, desenvolupament de materials i treball en equip.</i></p>	<p>1.Són aquestes necessitats de formació pròpies dels docents CLIL o la implementació d'un projecte CLIL les accentua i les fa més evidents?</p>	
	Importants	Llengua Metodologia	Llengua Metodologia			
Moderades	Gestió de l'aula	Fonaments Teòrics	Fonaments Teòrics	<p><i>Els docents en actiu també indiquen que tenen importants necessitats de formació pel que fa a la llengua i a la metodologia. Els professors CLIL sense experiència o poca experiència demanen més formació pel que fa als fonaments CLIL i a l'organització del centre. Els professors CLIL amb experiència tenen necessitats diverses en funció de la seva formació i experiència prèvia.</i></p>	<p>2.Es pot dir que aquestes necessitats són causades pel tipus de formació inicial rebuda?</p>	<p>2.1.En quin sentit seria diferent la formació inicial que rep un docent CLIL a un que no ho serà?</p> <p>2.2.En general, creu que els docents amb poca experiència demanarien més formació de</p>
	Contingut	Gestió del Projecte	Recerca			
	Col·laboració amb altres centres		Avaluació			
	Desenvolupament materials	Desenvolupament materials	Desenvolupament Materials			
	Treball en equip					

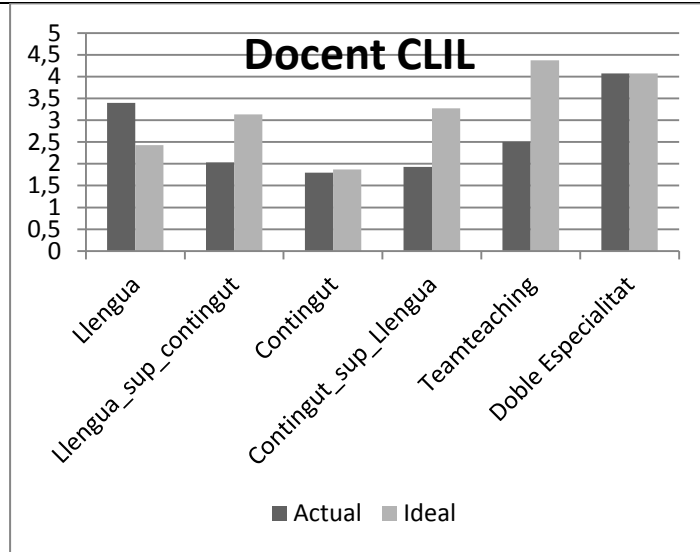
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			<p>qualsevol aspecte?</p> <p>2.2.En quins àmbits s'hauria de centrar la formació inicial per donar resposta a aquestes necessitats? Com s'hauria d'impartir aquesta formació?</p>
		<p>3.Considera que aquests resultats són propis del context analitzat en aquest estudi, Catalunya, o, en general, són comuns als docents que imparteixen CLIL?</p>	
COMPETÈNCIES			
<p>Competència d'autoreflexió</p> <p>Competència Lingüística</p> <p>Competència Metodològica</p> <p>Competència d'Avaluació</p> <p>Competència de Recursos d'Aprenentatge</p> <p>Competència de Gestió de l'Aula</p> <p>Competència de Recerca</p>	<p><i>Competència d'autoreflexió, competència lingüística, competència metodològica, competència d'avaluació, competència de recursos d'aprenentatge, competència de gestió de l'aula, competència de recerca i</i></p>	<p>4.Podria ordenar aquestes competències de més a menys rellevants per a un docent CLIL?</p>	<p>4.1.Podria justificar la classificació que ha fet?</p> <p>4.2. Considera que</p>

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<p>Competència de Gestió del Projecte CLIL</p>	<p><i>competència de gestió del projecte CLIL.</i></p>		<p>seria necessari afegir alguna altra competència a aquesta llista?</p>
		<p>5. Considera que el contingut, la llengua i els fonaments teòrics són competències o requisits que ha de posseir el docent CLIL? Per què?</p>	
		<p>6. Quina diferència hi ha entre les competències que ha de posseir un docent CLIL i un que no ho és?</p>	
<p>CONDICIONS ORGANITZATIVES</p>			

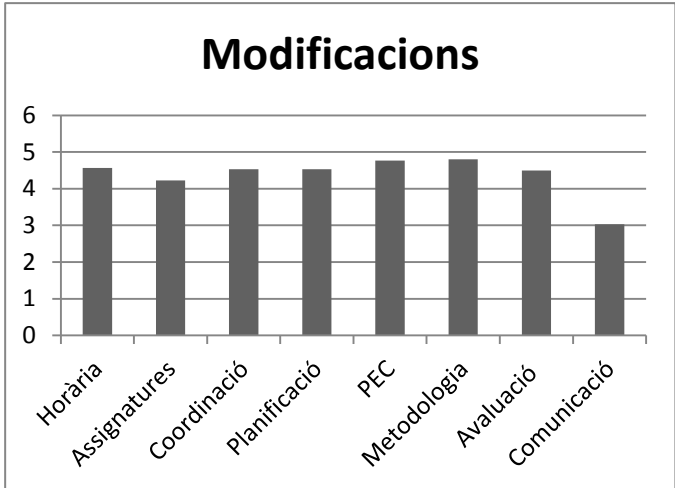
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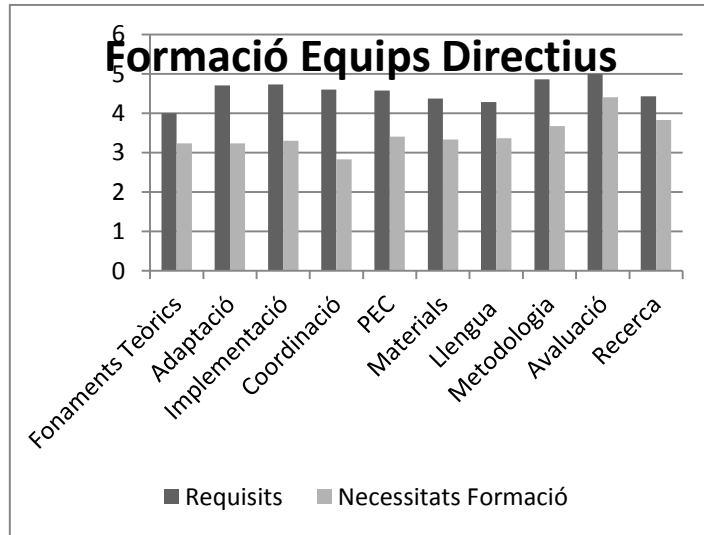


En general, els equips directius prefereixen que la realització de CLIL a l'aula sigui fruit de la estreta coordinació i planificació dels docents de continguts i els de llengua, seguit d'un doble especialista. No obstant, actualment, en la majoria de centres l'encarregat de CLIL és el docent de llengua estrangera o bé un doble especialista.

7. Comparteix l'opinió dels equips directius?

- 7.1. Pel que fa a:
- Docent CLIL "ideal".
 - Les Modificacions que implica CLIL.
 - Formació i necessitats de formació.
- 7.2. Considera que aquests resultats són propis del context analitzat en aquest estudi, Catalunya, o són comuns als equips directius de centres amb un projecte CLIL?

 <p>Modificacions</p> <table border="1"> <thead> <tr> <th>Modificació</th> <th>Freqüència</th> </tr> </thead> <tbody> <tr> <td>Horària</td> <td>4.5</td> </tr> <tr> <td>Assignatures</td> <td>4.2</td> </tr> <tr> <td>Coordinació</td> <td>4.5</td> </tr> <tr> <td>Planificació</td> <td>4.5</td> </tr> <tr> <td>PEC</td> <td>4.8</td> </tr> <tr> <td>Metodologia</td> <td>4.8</td> </tr> <tr> <td>Avaluació</td> <td>4.5</td> </tr> <tr> <td>Comunicació</td> <td>3.0</td> </tr> </tbody> </table>	Modificació	Freqüència	Horària	4.5	Assignatures	4.2	Coordinació	4.5	Planificació	4.5	PEC	4.8	Metodologia	4.8	Avaluació	4.5	Comunicació	3.0	<p>Les principals modificacions que ha de realitzar un centre que implementa un projecte CLIL són de caire metodològic i en el PEC, seguit de la modificació horària, la coordinació i l'avaluació. No obstant, aquestes modificacions semblen ser més o menys profundes en funció de si el projecte CLIL només s'aplica a un curs o a tota l'etapa primària.</p>	<p>8. Comparteix les dades trobades? Considera que és més important fer modificacions de caire metodològic?</p> <p>9. Creu que el fet que CLIL s'apliqui a un curs o a tota l'etapa pot influir en els canvis duts a terme? En quin sentit?</p> <p>10. Considera que aquests resultats són propis únicament de l'establiment d'un projecte CLIL o són, si més no parcialment, comuns a l'establiment de qualsevol altre projecte d'innovació?</p>	<p>Pel que fa a:</p> <ul style="list-style-type: none"> -Docent CLIL "ideal". -Les Modificacions que implica CLIL. -Formació i necessitats de formació.
Modificació	Freqüència																				
Horària	4.5																				
Assignatures	4.2																				
Coordinació	4.5																				
Planificació	4.5																				
PEC	4.8																				
Metodologia	4.8																				
Avaluació	4.5																				
Comunicació	3.0																				



Els equips directius que es plantegen implementar un projecte CLIL han de posseir coneixement en l'àmbit d'avaluació de projectes, metodologia, implementació i adaptació del projecte a les característiques del seu centre. No obstant, les àrees on actualment els agradaria rebre més formació són l'avaluació, la recerca, la metodologia i l'adaptació del PEC. En conjunt, no obstant, tendeixen a valorar el coneixement que posseeixen positivament donat que perceben que les seves necessitats de formació no són molt profundes. Tanmateix, en el cas de l'avaluació i recerca sembla ser que sí consideren que necessiten més formació.

11. Està d'acord amb l'opinió dels equips directius pel que fa a la formació requerida i a les necessitats de formació actuals?

12. Quin tipus de formació haurien de rebre els equips directius per fer front a l'establiment i la continuïtat d'un projecte CLIL? I els docents?

13. En quin moment s'hauria de produir aquesta formació? Ha de ser prèvia a iniciar el projecte CLIL? En el moment que el centre decideix fer un projecte CLIL? Duran el procés com acompanyament?

Pel que fa a:

-Gestió del projecte CLIL.

-CLIL

-contingut de la formació.

-Modalitat de formació.

11.1 Creu que el fet que els equips directius considerin que necessiten més formació en avaluació es deu a què l'administració ha insistit que s'ha de disposar d'indicadors d'avaluació per a cada projecte?

		<p>14. Quan tindria sentit articular tota la formació, de docents i directius, entorn al projecte de formació en centres?</p>																																		
<table border="1"> <caption>Formació Professorat</caption> <thead> <tr> <th>Categoria</th> <th>Requisits</th> <th>Necessitats Formació</th> </tr> </thead> <tbody> <tr> <td>Fonaments Teòrics</td> <td>3,5</td> <td>3,5</td> </tr> <tr> <td>Adaptació</td> <td>3,5</td> <td>3,2</td> </tr> <tr> <td>Implementació</td> <td>3,5</td> <td>3,3</td> </tr> <tr> <td>Coordinació</td> <td>3,5</td> <td>2,9</td> </tr> <tr> <td>PEC</td> <td>3,5</td> <td>3,1</td> </tr> <tr> <td>Materials</td> <td>3,5</td> <td>3,5</td> </tr> <tr> <td>Llengua</td> <td>3,5</td> <td>3,8</td> </tr> <tr> <td>Metodologia</td> <td>3,5</td> <td>4,2</td> </tr> <tr> <td>Avaluació</td> <td>3,3</td> <td>4,5</td> </tr> <tr> <td>Recerca</td> <td>3,0</td> <td>3,5</td> </tr> </tbody> </table>	Categoria	Requisits	Necessitats Formació	Fonaments Teòrics	3,5	3,5	Adaptació	3,5	3,2	Implementació	3,5	3,3	Coordinació	3,5	2,9	PEC	3,5	3,1	Materials	3,5	3,5	Llengua	3,5	3,8	Metodologia	3,5	4,2	Avaluació	3,3	4,5	Recerca	3,0	3,5	<p><i>Pel que fa als docents, els equips directius consideren que un docent CLIL ha d'estar format en llengua estrangera, en coordinació i Adaptació del PEC. No obstant, aquests mateixos equips directius consideren que les principals àrees on actualment els docents del seu centre necessiten més formació són: l'avaluació, la metodologia, la llengua i la recerca.</i></p> <p><i>En conjunt, la comparativa entre la formació requerida per a un docent CLIL i la que actualment posseeixen sembla indicar que els equips directius consideren que els docents necessiten rebre més formació.</i></p> <p><i>En general, els resultats indiquen que, segons els equips directius consultats, la formació requerida pels equips directius per portar a terme un projecte CLIL és major que la requerida pels docents. En canvi, opinen que les necessitats de formació dels docents</i></p>	<p>15. Quin paper tenen els equips directius en el desenvolupament d'un projecte CLIL a un centre educatiu de primària?</p>	<p>10.1 Com poden els equips directius fomentar la formació del seu claustre respecte a l'ensenyament – aprenentatge CLIL?</p>
Categoria	Requisits	Necessitats Formació																																		
Fonaments Teòrics	3,5	3,5																																		
Adaptació	3,5	3,2																																		
Implementació	3,5	3,3																																		
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Llengua	3,5	3,8																																		
Metodologia	3,5	4,2																																		
Avaluació	3,3	4,5																																		
Recerca	3,0	3,5																																		

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	<i>són majors.</i>		
GENERAL			
		16. Quines considera que són les accions que s'han de portar a terme per millorar la formació del professorat i la implementació i el desenvolupament de projectes CLIL?	-A nivell de centre,
		17. Actualment, quines dificultats plantegen els projectes CLIL? Per contra, quins avantatges i/o punts forts a mantenir o potenciar plantegen els projectes CLIL?	12.1. Pel que fa a: -La formació del professorat i dels equips directius. -La gestió i organització del centre.
		18. Desitja afegir alguna altra observació o comentari que no hagi estat tingut en compte?	

Appendix 17. Analysed Studies to identify CLIL Teachers' Competences

Title	Year	Reference	Country/Region	Identified Competences
<i>CLIL teacher training in Extremadura</i>	2010	Alejo, R., Piquer-Píriz, A. (2010). CLIL Teacher Training in Extremadura: A Needs Analysis Perspective. En Lasagabaster y Y. Ruiz de Zarobe (Eds). CLIL in Spain: Implementation, results and teacher training. Newcastle: Cambridge Scholars Publishing.	Espanya	Metodologia; Avaluació; Polítiques CLIL; competència comunicativa;
<i>Teacher training for CLIL in the Basque Country</i>	2010	Ball, P., Lindsay, D. (2010). Teacher training for CLIL in the Basque Country: the case of the Ikastolas in search of parameters. En D. Lasagabaster y Y. Ruiz de Zarobe (Eds). CLIL in Spain: Implementation, results and teacher training. Newcastle: Cambridge Scholars Publishing	Espanya	Metodologia; Autoreflexió; Materials; coneixement de la llengua.
<i>The CLIL teacher's Competences Grid</i>	2009	Bertaux, P., Coonan, C.M., Frigols, M.J., Mehisto, P. (2009): The CLIL teacher's Competences Grid. Common Constitution and Language Learning (CCLL) Comenius Network. Available at http://www.istitutoinsolera.gov.it/doc/Clil/The%20CLIL%20Teacher's%20Competences%20Grid.pdf	Europeu	Adquisició de segones llengües; habilitats per a l'aprenentatge CLIL; competència lingüística; integració; interculturalitat; metodologies actives; avaluació de l'aprenentatge; avaluació de CLIL; enfocaments innovadors de l'ensenyament-aprenentatge; gestió d'espais d'aprenentatge; paràmetres del programa; política CLIL; desenvolupament de cursos, Col·laboració en la implementació
<i>A case study on teacher training needs in the Madrid Bilingual Project</i>	2014	Cabezuelo-Gutiérrez, P., Fernández-Fernández, R. (2014). A case study on teacher training needs in the Madrid Bilingual Project. Latin American Journal of Content and Language Integrated Learning, 7,2, 50-70. DOI: 10.5294/lacil.2014.7.2.3	Espanya	Metodologia; competència comunicativa; gestió de l'aula
<i>CLIL in (language) teacher training</i>	2009	Coonan, C.M. (2009). CLIL in (language) teacher training. Presented at <i>Semlang Seminar CLIL Workshop</i> , Sèvres, France, July 2009	Itàlia	Coneixement del contingut; coneixement de la llengua; metodologia; recursos; avaluació; gestió de l'aula; col·laboració; treball en equip; projecte de centre; competència comunicativa
<i>A scaffolding framework for CLIL</i>	2010	Dafouz, E., Llinares, A., Morton, T. (2010). CLIL across contexts: A scaffolding framework for CLIL teacher Education. In U-Smit, B. Schiftner, C. Dalton-Puffer (Eds.) Current Research on CLIL 3. Vienna: Viewz.	Europeu	Planificació; necessitats dels aprenents; multimodal; alfabetització curricular; context i cultura; cooperació i reflexió; interacció i avaluació.

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<i>teacher Education</i>				
<i>Pre-service CLIL teacher-education in Catalonia</i>	2010	Escobar-Urmeneta, C. (2010) Pre-service CLIL teacher-education in Catalonia: expert and novice practitioners teaching and reflecting together. En D. Lasagabaster y Y. Ruiz de Zarobe (Eds). CLIL in Spain: Implementation, results and teacher training. Newcastle: Cambridge Scholars Publishing	Espanya	Reflexió sobre la pròpia pràctica; coneixement de la llengua i contingut; Metodologia; col·laboració docent.
<i>Teacher training for CLIL in Spain at the Universidad de Alcalá</i>	2010	Halbach, A. (2010). From the classroom to University and Back: Teacher training for CLIL in Spain at the Universidad de Alcalá. En D. Lasagabaster y Y. Ruiz de Zarobe (Eds). CLIL in Spain: Implementation, results and teacher training. Newcastle: Cambridge Scholars Publishing	Espanya	Metodologia; competència lingüística; desenvolupament de materials; gestió de l'aula;
<i>First steps in CLIL: Training the teacher</i>	2011	Hillyard, S. (2011). First steps in CLIL: Training the teacher. <i>Latin American Journal of Content & Language Integrated Learning</i> , 4, 2, 1-12. DOI:10.5294/lacilil.2011.4.2.1 ISSN 2011-6721	No s'especifica	Coneixement de la llengua; coneixement del contingut; competència metodològica
<i>Project CLILT</i>	2011	Hunt, M. (2011). UK teachers' and learners' Experiences of CLIL Resulting from the EU-funded Project CLILT. <i>Latin American Journal of Content and Language Integrated Learning</i> , 4, 1, 27-39.	Regne Unit	Coneixements teòrics; metodologia i avaluació
<i>Competences of teachers from Bilingual Schools Framework</i>	2011	Lorenzo, F., Trujillo, F., Vez, J.M. (2011). Educación Bilingüe. Integración de Contenidos y Segundas Lenguas. Madrid: Editorial Síntesis.	Espanya	Reflexió i desenvolupament professional; competència pedagògica; coneixement del contingut i de la llengua; competència metodològica; competència de gestió; competència interpersonal; col·laboració amb els companys i l'entorn
<i>A Model for Quality CLIL Provision</i>	2008	Lucietto, S. (2008). A Model for Quality CLIL Provision. <i>International CLIL Research Journal</i> , 1,1.	Itàlia	Metodologia; col·laboració; gestió del projecte; projecte de centre;

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<p>European Framework for CLIL Teacher Education. A framework for the professional development of CLIL teachers</p>	<p>2010</p>	<p>Marsh, D., Mehisto, P., Wolff, D., Frigols-Martín, M.J. (2010). <i>European Framework for CLIL Teacher Education. A framework for the professional development of CLIL teachers</i>. European Centre for Modern Languages. Council of Europe.</p>	<p>Europa</p>	<p>Reflexió personal; fonaments CLIL; consciència de la llengua i el contingut; metodologia i avaluació; recerca i avaluació; recursos i contextos d'aprenentatge; gestió de l'aula; gestió CLIL</p>
<p>La Formació Inicial de Mestres a Catalunya en relació a l'Anglès</p>	<p>2016</p>	<p>MIF anglès (2016). <i>La Formació Inicial de Mestres a Catalunya en relació a l'Anglès: Estat de la Qüestió i Propostes de Futur</i>. Barcelona: Programa de Millora i Innovació en la Formació de Mestres.</p>	<p>Catalunya</p>	<p>Coneixement del contingut; coneixement de la llengua; competència comunicativa; metodologia; avaluació; gestió de l'aula; coneixement del projecte lingüístic; organització escolar; ús dels recursos TIC per a l'ensenyament de les llengües</p>
<p>Examining teachers' roles and competences in content and language integrated learning</p>	<p>2013</p>	<p>Pavón-Vázquez, V. & Ellison, M. (2013). Examining teachers' roles and competences in content and language integrated learning (CLIL). <i>Linguarum Arena</i>, 4, 65-78.</p>	<p>Espanya</p>	<p>Coneixement del contingut; coneixement de la llengua; metodologia; competència comunicativa; fonaments teòrics; autoreflexió; avaluació; innovació; col·laboració docent</p>
<p>Teaching through a foreign language: a guide for teachers and schools to using Foreign Language in</p>	<p>2001</p>	<p>Pavesi, M., Bertocchi, D., Hofmanová, M. & Kasianka, M. (2001). Teaching through a foreign language: a guide for teachers and schools to using Foreign Language in Content Teaching, [32p.] In D. Langé (Ed.), <i>Insegnare in una lingua straniera. Unterrichten durch eine Fremdsprache. Teaching through a foreign language. Enseñar en una lengua extranjera. Enseigner dans une langue vivante</i>. Milan: M.I.U.R., Direzione Generale della Lombardia on behalf of TIE-CLIL. Retrieved from http://www.ub.es/filoan/CLIL/teachers.pdf.</p>	<p>Itàlia</p>	<p>coneixement de la llengua; coneixement del contingut; planificació; gestió de l'aula;</p>

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<i>Content Teaching</i>				
<i>Teacher training needs for bilingual education: in-service teacher perceptions</i>	2014	Pérez-Cañado, M.L. (2014). Teacher training needs for bilingual education: in-service teacher perceptions. <i>International Journal of Bilingual Education and Bilingualism</i> . DOI:10.1080/13670050.2014.980778	Europa	competència lingüística i intercultural; competència metodològica; competència de materials; competència de desenvolupament professional
<i>Competences for Effective CLIL Teaching in Argentina</i>	2009	Pistorio, M.I. (2009). Teacher training and Competences for Effective CLIL Teaching in Argentina. <i>Latin American Journal of Content & Language Integrated Learning</i> , 2, 2, 37-43, DOI:10.5294/lacilil.2009.2.2.14	Argentina	Fonaments CLIL; competència metodològica; estratègies docents
<i>How well-trained are pre-service teachers to instruct CLIL? A needs analysis from stakeholders' perspective</i>	2015	Pons-Seguí, L. (2015). <i>How well-trained are pre-service teachers to instruct CLIL? A needs analysis from stakeholders' perspective</i> . Master thesis: Universitat de Barcelona	Espanya	Competència d'autoreflexió, Competència Comunicativa, Competència metodològica, competència de gestió de l'aula, Competència de desenvolupament de materials; competència de treball en equip; competència de col·laboració interescolar; coneixement del contingut
<i>Teacher Training Programmes for CLIL in Andalusia</i>	2010	Salaberri-Ramiro, M.S. (2010). Teacher Training Programmes for CLIL in Andalusia. En D. Lasagabaster & Y. Ruiz de Zarobe (Eds.) <i>CLIL in Spain: Implementation, Results and Teacher Training</i> . NewCastle: Cambridge Scholars publishing.	Espanya	Competència lingüística; metodologia; projecte CLIL; recerca

Appendix 18. Alignment of the Planning for *Planning, Design and Assessment of Learning and Teaching Activity*

COMPETENCES	LEARNING OUTCOMES	CONTENTS	ASSESSMENT CRITERIA	RELATIONSHIP COMPETENCE LEVEL
<i>Cross-curricular</i>				
8. To understand learning as a global, complex and transcendental fact; self-regulate the own learning, mobilise different types of knowledge, adapting to the new contexts and integrate knowledge to construct new knowledge. [Self-reflection competence]	<ul style="list-style-type: none"> ·To build a practice, critical and reflective understanding and perspective of learning and teaching processes and their planning. ·To reflect and construct a new practical and reflective perspective about content and language integrated learning. ·To elaborate the own informed criteria about key learning at primary education and the methodologies that favour and foster this learning. 	<ul style="list-style-type: none"> ·The key content: selection and organisation. ·Methodologies for teaching and learning. 	<ul style="list-style-type: none"> ·Teaching and learning processes and their planning are critically reflected from the identification of the own beliefs, teaching characteristics, as well as the current learning results. ·Key competences for primary education are identified through the analysis of the curriculum and current learning results. 	<ul style="list-style-type: none"> ·To identify and reflect on the own beliefs about teaching and learning. ·To recognise and reflect on the own believes about content and language integrated learning. ·To explore and reflect on the own characteristics as a teachers, the potentialities and the areas of improvement.
4. To use new information and communication technologies to learn, communicate and share knowledge. [Methodological and materials and learning resources competences]	<ul style="list-style-type: none"> ·To develop criteria and adequate teaching resources to students' interests needs and possibilities. 	<ul style="list-style-type: none"> ·Curricular integration of ICT. 	<ul style="list-style-type: none"> ·ICT is used to build up knowledge during the teaching and learning process. 	<ul style="list-style-type: none"> ·To identify the methodological approach that will favour the attainment of learning outcomes and competences' development. ·To explore what strategies will favour that student build up the content. ·To establish some criteria to search and select materials for CLIL

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				<p>teaching and learning.</p> <ul style="list-style-type: none"> ·To sequence learning activities to work the different contents progressively.
<p>2. To plan, organise and manage processes, information, problems and projects. To have initiative, entrepreneurship and capacity to generate new ideas and actions.</p> <p>[Methodological competence]</p>	<p>-To build up an understanding and practical, critical and reflexive perspective of teaching and learning processes and their planning.</p>	<p>-Planning teaching and learning.</p> <ul style="list-style-type: none"> - Classroom management -Teaching and learning methodologies. - Assessment in primary education. 	<p>·The tasks and projects are solved through the selection and application of the contents worked during the course, considering teachers' ethical dimension.</p>	<ul style="list-style-type: none"> ·To plan teaching and learning proposals that integrate content and learning. ·To identify and align the competences, learning outcomes, content, activities and assessment. ·To identify the methodological approach that will favour the attainment of learning outcomes and competences' development. ·To explore what strategies will favour that student build up the content. ·To propose some strategies that will foster the learning of all students. ·To establish the assessment system that has to allow to identify students' learning.
Specification of the degree				
<p>7. To design and develop educational projects, unit plans, environments, activities and materials, including ICT, that allow to adapt the</p>	<p>·To build up an understanding and practical, critical and reflexive perspective of teaching and learning processes and their planning.</p> <p>·To design content</p>	<p>·Planning teaching and learning.</p> <ul style="list-style-type: none"> ·Classroom organisation. ·Content and language integration: CLIL. 	<p>·Methodological approaches and strategies are reflexively and critically explored.</p> <p>·Proposals that integrate content and language are</p>	<ul style="list-style-type: none"> ·To sequence learning activities to work the different contents progressively. ·To plan teaching and learning proposals that integrate content and learning. ·To explore what

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<p>curriculum to students' diversity and foster the quality of learning environments in order to ensure students' wellbeing.</p> <p>[Methodological and material and learning resources competences]</p>	<p>and language integrated proposals and educational actions which are contextualised, innovative and participative.</p> <p>·To develop some teaching criteria and resources that are adequate to students' diverse interests, needs and possibilities.</p>	<p>·Teaching and learning resources.</p>	<p>designed.</p> <p>·Learning resources are selected depending on students' characteristics and the educational purpose.</p>	<p>strategies will favour that student build up the content.</p> <p>·To identify and align the competences, learning outcomes, content, activities and assessment.</p> <p>·To identify the methodological approach that will favour the attainment of learning outcomes and competences' development.</p> <p>·To establish some criteria to search and select materials for CLIL teaching and learning.</p> <p>·To identify sources where valuable resources for CLIL teaching and learning can be obtained.</p> <p>·To assess the selected material in terms of the possibility to work content and language integratively, at the same time that they foster students' cognitive development.</p>
<p>9.To integrate new information and communication technologies to teaching and learning activities</p> <p>[materials and learning resources competence]</p>	<p>·To develop some teaching criteria and resources that are adequate to students' diverse interests, needs and possibilities.</p> <p>·To integrate and use ICT in the teaching and learning process.</p>	<p>·Curricular integration of ICT.</p>	<p>·ICT is integrated in the teaching and learning process.</p> <p>·Learning resources are selected depending on students' characteristics and interests.</p>	<p>·To establish some criteria to search and select materials for CLIL teaching and learning.</p> <p>·To value the use of ICT to support content and language integrated learning.</p> <p>·To assess the selected material in terms of the</p>

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				<p>possibility to work content and language integratively, at the same time that they foster students' cognitive development.</p> <ul style="list-style-type: none"> ·To identify the areas in which it will be necessary to search extra material to reinforce or expand content.
<p>11.To understand that education in general and the teaching and learning processes in particular are complex. To assume that teaching practice has to improve, Update and adapt to the scientific, social, pedagogical and cultural changes. To understand the importance of participating in innovation and research projects related to teaching and learning and to introduce innovative practices in the classroom.</p>	<ul style="list-style-type: none"> ·To build up a critical understanding about cultural knowledge and its potentialities to develop students' understanding of the world where they live and they personal, social and cultural growth. ·To elaborate the own informed criteria about key learning and the teaching practices that favour this learning. 	<ul style="list-style-type: none"> ·Planning teaching and learning. ·Key contents: selection and organisation. ·Teaching and learning methodologies. ·Content and language integrated learning. 	<ul style="list-style-type: none"> ·It is critically reflected on teaching and learning processes and their planning through the identification of the own beliefs and teaching characteristics. ·Key learning is critically identified from the analysis of the curriculum and current learning outcomes. 	<ul style="list-style-type: none"> ·To identify the learning content to be worked. ·To think of different strategies that foster content acquisition. ·To identify and reflect on the own beliefs about teaching and learning. ·To identify the methodological approach that will favour the attainment of learning outcomes and competences' development.
<p>10.To use assessment with a pedagogical function as a regulatory element to foster teaching</p>	<ul style="list-style-type: none"> ·To develop some pedagogical criteria in front of the assessment processes in relation to the 	<ul style="list-style-type: none"> ·Assessment in primary education. ·Assessment in CLIL. 	<ul style="list-style-type: none"> ·Assessment to assess the teaching and learning process is reflexively selected in order 	<ul style="list-style-type: none"> ·To identify and reflect on the own beliefs about teaching and learning. ·To recognise and reflect on the own

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<p>and learning improvement and the own training, assuming the need of ongoing development through reflection, self-evaluation and research on the own practice.</p> <p>[Self-reflection and assessment competences]</p>	<p>meaning and support to students' learning, teaching and learning processes and teaching reflection.</p> <p>·To be aware of the importance of ongoing development as a way to understand the teaching profession.</p>		<p>to identify students' learning in relation to the learning outcomes.</p> <p>·The own learning process and teaching practice are assessed to identify the strengths and the areas of improvement.</p>	<p>believes about content and language integrated learning.</p> <p>·To explore and reflect on the own characteristics as a teachers, the potentialities and the areas of improvement.</p> <p>·To identify content and language learning outcomes aimed to be assessed.</p> <p>·To decide the strategies and tools that will be used to assess the learning outcomes.</p> <p>·To propose an assessment system that allows to identify content learning without being delayed by language knowledge.</p> <p>·To establish a mechanism to assess the teaching practice.</p>
<p>8. To assume teachers' ethical dimension, being responsible, making decisions and critically analysing the conceptions and proposals about education coming from research and innovation, as well as the Administration.</p> <p>[Self-reflection]</p>	<p>·To develop an ethical commitment as a teacher.</p>	<p>·Key contents: selection and organisation.</p> <p>·Assessment in primary education.</p>	<p>·A critical, analytical and reflexive perspective is adopted as a teacher to evaluate the educational conceptions and proposals.</p>	<p>·To identify and reflect on the own beliefs about teaching and learning.</p> <p>·To recognise and reflect on the own believes about content and language integrated learning.</p> <p>·To explore and reflect on the own characteristics as a teachers, the potentialities and the areas of improvement.</p>

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<p>4. To motivate and foster students' progress to promote autonomous learning, starting from the objectives and contents from each educational level with positive expectations about students' progress.</p> <p>[Methodology and classroom management]</p>	<ul style="list-style-type: none"> ·To understand, know, think, plan and motivate classroom life considering social, relational and educational complexity. ·To create a favourable attitude towards including in the teaching and learning process ways of knowing, learning, thinking and reflecting that include experiences, knowledge and own experiences. 	<ul style="list-style-type: none"> ·Planning teaching and learning. ·Classroom organisation. ·Content and language integrated learning. 	<ul style="list-style-type: none"> ·It is reflexively and critically explored what approaches and strategies will favour students learning. ·Proposals that integrate content and language are integrated. ·Strategies that allow to include classroom diversity are identified and analysed. 	<ul style="list-style-type: none"> ·To plan teaching and learning proposals that integrate content and learning. ·To identify the methodological approach that will favour the attainment of learning outcomes and competences' development. ·To explore what strategies will favour that student build up the content. ·To propose some strategies that will foster the learning of all students. ·To identify and analyse different strategies to manage communication, collaborative learning, group management, giving instructions and analyse classroom dynamics. ·To identify and analyse different strategies that allow to address students' individual differences for language, content and learning and social skills.
<p>Communicative Competence</p>	<ul style="list-style-type: none"> ·To identify and plant the language students have to use and learn during the teaching and learning process. ·To adjust the language use to students' 	<ul style="list-style-type: none"> ·Planning teaching and learning. ·Content and language integration: CLIL 	<ul style="list-style-type: none"> ·The language students will have to acquire is identified and worked. ·The language use is adapted to students' needs and the topic 	<ul style="list-style-type: none"> ·To identify the language that is aimed to be worked in a topic. ·To analyse and reflect on how language work is aimed to be plan. ·To identify different approaches to work language. ·To identify the

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	characteristics, language level and the worked topic.		worked.	key terms and structures that should be worked to foster students' content understanding. ·To plan the language that is aimed to be worked in a given unit.
Language knowledge	<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the curricular and planning specific terminology. ·To identify the characteristic genres of academic works. ·To become aware of the most common language mistakes. 	<ul style="list-style-type: none"> ·Curricular and planning terminology. ·Genres. 	It is used the adequate language and structures (terminology, genre...) in oral and written texts allowing the audience to understand the core characteristics of the proposal.	<ul style="list-style-type: none"> ·To understand the main ideas of written and oral texts in an additional language about educational topics. ·To produce oral and written simple texts in an additional language about education. ·To describe, explain and justify educational topics in an additional language.

Appendix 19. Alignment of the Planning for *Educational System and School Organisation* Course.

COMPETENCES	LEARNING OUTCOMES	CONTENTS	ASSESSMENT CRITERIA	RELATIONSHIP COMPETENCE LEVEL
<i>Cross-curricular</i>				
5. Teamwork, collaboration and leadership [Project Management]	<ul style="list-style-type: none"> ·To analyse and assess relevant aspects of educational institutions and their organisation, considering personal and relational well-being of the people involved in these institutions. ·To reflect on the importance of teamwork for the organisation functioning and the teaching and learning process. 	2. Educational contexts. 3. Organisational Dynamics	<ul style="list-style-type: none"> · It is reflected on the importance of teamwork for the organisation functioning and the teaching and learning process. ·Different strategies to involve and coordinate the educational stakeholders are analysed. 	<ul style="list-style-type: none"> ·To analyse the mechanisms used in education projects to involve the educational community. ·To identify and assess different mechanisms to favour teachers' coordination, but also the coordination between the stakeholders and institutions involved in CLIL.
7. To exercise self-reflection and being ethically committed. To be motivated for quality improvement. [Self-reflection competence]	<ul style="list-style-type: none"> ·To be able to build up a reflexive and critical view about educational organisations. ·To assess the implications and consequences that organisational decisions have on teaching and learning processes. 	2. Educational contexts. 3. Organisational Dynamics	<ul style="list-style-type: none"> ·It is critically reflected on educational organisation and its role on society and learning. ·The own beliefs about the educational system and school organisation are identified. ·It is explored and reflected on the own role in the educational organisation. 	<ul style="list-style-type: none"> ·To identify and reflect on the own beliefs about teaching and learning. ·To explore and reflect on the own characteristics as a teachers, the potentialities and the areas of improvement.
2. To plan, organise and manage processes, information,	<ul style="list-style-type: none"> ·To assess the implications and consequences that organisational 	2. Organisational contexts.	<ul style="list-style-type: none"> ·Organisational proposals that favour social inclusion and 	<ul style="list-style-type: none"> ·To identify and analyse different strategies that allow to address students' individual

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<p>problems and projects. To have initiative, entrepreneurship and capacity to generate new ideas and actions.</p> <p>[Project Management and Classroom Management]</p>	<p>decisions have on teaching and learning processes.</p> <ul style="list-style-type: none"> ·To be sensitive to the organisational proposals that favour social inclusion and inclusion awareness. 		<p>inclusion awareness are identified and assessed.</p> <ul style="list-style-type: none"> ·It is reflected on the contextual and educational aspects to be considered when an innovation is implemented. ·Different strategies to involve and coordinate the educational stakeholders are analysed. 	<p>differences for language, content and learning and social skills.</p> <ul style="list-style-type: none"> ·To identify what contextual and learning aspects should be considered before implementing an innovation. ·To identify what internal and external agents can support the design and implementation of a CLIL project and what role they can have.
<p>Specific of the degree</p>				
<p>1.To know school organisation and the stakeholders and actions that are necessary for the school to work. To collaborate with the educational community, the context and foster teamwork to improve the teaching practice.</p> <p>[Classroom Management and Project Management]</p>	<ul style="list-style-type: none"> ·To be able to build up a reflexive and critical view about educational organisations. To analyse and assess relevant aspects of educational institutions and their organisation, considering personal and relational well-being of the people involved in these institutions. ·To be sensitive to the organisational proposals that favour social inclusion and inclusion awareness. 	<ol style="list-style-type: none"> 1. Educational System. 2. Educational contexts. 3. Organisational Dynamic. 4. Innovation and school change. 	<ul style="list-style-type: none"> ·It is critically reflected on educational organisation and its role on society and learning. ·The different organisational elements of a school and their impact on teaching staff, students and the learning process are analysed. ·Organisational proposals that favour social inclusion and inclusion awareness are identified and assessed. ·It is reflected on the impact innovations have on the organisation. ·The mechanisms 	<ul style="list-style-type: none"> ·To identify and analyse different strategies to manage communication, collaborative learning, group management, giving instructions and analyse classroom dynamics. ·To identify what internal and external agents can support the design and implementation of a CLIL project and what role they can have. ·To identify what contextual and learning aspects should be considered before implementing CLIL. ·To reflect on the organisational and curricular implications that CLIL implementation will have.

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			to evaluate the school functioning are analysed.	·To search and propose different mechanisms to evaluate CLIL implementation.
<p>8.To assume the teachers' ethical dimension, being responsible, making decisions and analysing critically the conceptions and proposals coming from research, innovation and the Administration.</p> <p>[Research and Innovation, Self-reflection]</p>	<p>To be able to build up a reflexive and critical view about educational organisations.</p> <p>To assess the implications and consequences that organisational decisions have on teaching and learning processes.</p>	<p>1. Educational System.</p> <p>2. Educational contexts.</p> <p>3. Organisational Dynamic.</p> <p>4. Innovation and school change.</p>	<p>·It is critically reflected on educational organisation and its role on society and learning.</p> <p>·The own beliefs about the educational system and school organisation are identified.</p> <p>·It is explored and reflected on the own role in the educational organisation.</p>	<p>·To recognise the need of change and to provide creative solutions to current educational challenges.</p> <p>·To identify trustworthy sources to obtain information about CLIL research.</p> <p>·To identify and reflect on the own beliefs about teaching and learning.</p> <p>·To recognise and reflect on the own believes about content and language integrated learning.</p> <p>·To explore and reflect on the own characteristics as a teachers, the potentialities and the areas of improvement.</p>
<p>6. To develop a critical and responsible citizenship and to build up democratically the coexistence rules, solve collaboratively complex situations. To be able to analyse social inequalities within the framework of education-school and the role of the teacher to reproduce or transform them.</p> <p>[Self-reflection]</p>	<p>· To analyse and assess relevant aspects of educational institutions and their organisation, considering personal and relational well-being of the people involved in these institutions.</p> <p>·To understand social complexity in educational process to develop a participative and collaborative school culture that promotes the connection between different</p>	<p>1.Educational System.</p> <p>2. Educational contexts.</p> <p>3. Organisational Dynamic.</p> <p>4. Innovation and school change.</p>	<p>·It is critically reflected on educational organisation and its role on society and learning.</p> <p>·The organisational proposals that favour social inclusion and inclusion awareness are explored.</p> <p>·The strategies that foster students' participation in the school are identified and</p>	<p>·To identify and reflect on the own beliefs about teaching and learning.</p> <p>·To recognise and reflect on the own believes about content and language integrated learning.</p> <p>·To explore and reflect on the own characteristics as a teachers, the potentialities and the areas of improvement.</p> <p>·To identify strategies to encourage</p>

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and Classroom Management]	social and educational environments. To be sensitive to the organisational proposals that favour social inclusion and inclusion awareness		analysed. ·The own beliefs about the educational system and school organisation are identified. ·It is explored and reflected on the own role in the educational organisation.	students' participation.
Specific requisites of the experience				
Language knowledge	<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the curricular and planning specific terminology. ·To identify the characteristic genres of academic works. ·To become aware of the most common language mistakes. 	<ul style="list-style-type: none"> ·Curricular and planning terminology. ·Genres. 	It is used the adequate language and structures (terminology, genre...) in oral and written texts allowing the audience to understand the core characteristics of the proposal.	<ul style="list-style-type: none"> ·To understand the main ideas of written and oral texts in an additional language about educational topics. ·To produce oral and written simple texts in an additional language about education. ·To describe, explain and justify educational topics in an additional language.

Appendix 20. Planning for *Planning, Design and Assessment of Learning and Teaching* Activity Course.

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
14.02.2017 Presentation Curriculum: Compulsory Education	-Self-reflection competence. - Language Competence	-Build an understanding and a practical, critical and reflexive perspective about teaching and learning processes and their Planning. -Develop an ethical commitment as a teacher.	- Compulsory Education - Catalan Education System.
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the curricular and planning specific terminology. 			
ACTIVITY		MATERIAL	TIME
Activity 1: Subject Presentation: <ul style="list-style-type: none"> - Subject characteristics. - Methodology (English, Groups...) - Tasks & Assessment Criteria. - Online Portfolio. - MSLQ - Thesis - Material: curriculum, readings, Portfolio... 		PPT	60'
Activity 2: <ul style="list-style-type: none"> · <i>If you had to defend Compulsory Education in front of the Education Minister, what would you say? [What does compulsory Education mean? Why is it for?]</i> <ul style="list-style-type: none"> - Discuss in small groups (4 participants). → Whole class discussion. · Structure of the Catalan/Spanish Education System. <ul style="list-style-type: none"> - Goals and reasons of compulsory Education. - School Functions. · <i>What are the strengths and weaknesses of the current basic education?</i> <ul style="list-style-type: none"> - Whole class discussion 		Ppt	20' (10+10) 20'
Activity 3: Watch compulsory Education video: <ul style="list-style-type: none"> - What are the origins of compulsory Education? - What are the results and how it has changed 		Ken Robinson's Video	10'

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overtime?		
TASKS: Start their portfolio what their aims are and what they are going to do to achieve them.		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
16.02.2017 Curriculum	-Self-reflection competence. - Language Competence	-Build an understanding and a practical, critical and reflexive perspective about teaching and learning processes and their Planning. -Develop an ethical commitment as a teacher. -Develop a critical understanding about cultural knowledge and its potential to help pupils understand the world and their personal, social and cultural growth. -Develop informed self-criteria about basic learning at primary education and the teaching methodologies that favour and make this learning possible.	-Catalan Education System. - Catalan Education Results. - The Curriculum.

LANGUAGE

- To comprehend the key ideas of oral and written texts about organisational topics.
- To produce academic oral and written texts about educational organisation which are grounded on the theory.
- To use the educational and organisational specific terminology.

ACTIVITY	MATERIAL	TIME
Activity 1: · <i>Is Basic Education fulfilling its aims?</i> [Start discussion from Ken Robinson video + analysis of pieces of news]. → First in small groups and then whole group discussion. - What is the relationship between Robinson's video and the news with compulsory Education aims? - What is your opinion in relation to the ideas that emerge from these resources? - What impact do these resources have on Education? And on society? - In your opinion, what are the reasons for these results/facts?	-News from newspapers or the news.	40' (10' +20')
Activity 2: · <i>What is the curriculum?</i> - Brain storming of what they understand about	Definitions	20'

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<p>the curriculum. Is there only one possibility to understand the curriculum? Are there different views? Why do they think they have these ideas about the curriculum?</p> <p>· <i>Extract some paragraphs from the reading 'curriculum & democracy':</i></p> <ul style="list-style-type: none"> - Students have to read the definitions and organise them in time. 		
<p>Activity 3:</p> <p>· <i>Explain what is generally understood by curriculum and the different approaches & types.</i></p> <ul style="list-style-type: none"> - What curriculum conceptualisation is more feasible? Which one do they feel more identified? 	Ppt	20'
<p>Activity 3:</p> <p>· <i>Analyse the structure of Catalan curriculum.</i></p> <ul style="list-style-type: none"> - Look at the structure of the Catalan curriculum - Reflect on the curriculum approach and type → which are the implications on Education. 	<p><u>Material XTEC</u></p> <p><u>Material XTEC [Per alumnes]</u></p>	20'
TASKS:		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
<p>21.02.2017</p> <p>Curriculum</p>	<ul style="list-style-type: none"> -Self-reflection competence. - Language Competence 	<ul style="list-style-type: none"> -Build an understanding and a practical, critical and reflexive perspective about teaching and learning processes and their Planning. -Develop an ethical commitment as a teacher. -Develop a critical understanding about cultural knowledge and its potential to help pupils understand the world and their personal, social and cultural growth. -Develop informed self-criteria about basic learning at primary education and the teaching methodologies that favour and make this learning possible. 	<ul style="list-style-type: none"> -Els continguts bàsics: selecció i organització.
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. 			

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·To use the educational and organisational specific terminology.		
ACTIVITY	MATERIAL	TIME
<p>Activity 1:</p> <p>· <i>Comparison of Catalan/Spanish curriculum and the Finnish one.</i></p> <ul style="list-style-type: none"> - Identify the type and approach of each curriculum. - Look for similarities and differences → what impact have these similarities and differences? - What is the role of teachers and pupils in each curriculum? 	<p>Catalan & Finnish curriculum</p> <p>Students' should bring their ipads/laptops (1 x group)</p>	20'
<p>Activity 2:</p> <p>· <i>Who decides the curriculum?</i></p> <ul style="list-style-type: none"> - Education Laws. → what are they characteristics + Catalan competence on Education - Underlying interests. → Economic, social, political... underlying interests. - Underlying curriculum (curriculum occult) → risks <p>· <i>Relationship between the Law (LOMCE) and the curriculum.</i></p>	Ppt	30'
<p>Activity 3:</p> <p>· <i>What does the curriculum say? How it is represented in the curriculum? Is it coherent?</i></p> <ul style="list-style-type: none"> - Read the established articles and see how they are present in the actual curriculum (p.1-11): each group is going to read one. - They will present their findings to the rest of the class. (2' x group). - What is the role of teachers and pupils? 	Curriculum.	50'
<p>Activity 4:</p> <p>· <i>Can this curriculum and any other curriculum be improved? What can we do us as teachers? Is it possible another type of curriculum? → If it is possible why don't we do it?</i></p> <ul style="list-style-type: none"> - Show examples of other types of curriculums 	Ppt	10'
TASKS:		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
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<p>· <i>Dientes de Espada</i> metaphor:</p> <ul style="list-style-type: none"> - Read it with the group and choose the two ideas you consider more relevant. → Justify their elections. - Put in common each group two main ideas: see if they coincide or differ and the reasons underlying their decisions. <p>· <i>Analyse the contents' proposal they elaborated in the previous session and think about why they selected those contents.</i></p> <ul style="list-style-type: none"> - Did they select them because of their previous experience? - Did they select them because they believed the contents were necessary? - Were they sure when selecting the contents? <p>· <i>Is it easy or difficult to select the contents? Why?</i></p> <p>· <i>How do we make sure that what we select now it is going to be useful in 20 years time?</i></p>	<p>Metaphor</p>	<p>20'</p> <p>20'</p> <p>20'</p>
<p>Activity 3:</p> <p>· <i>What are the current challenges of the current content selection?</i></p>		<p>15'</p>
<p>TASKS:</p>		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
<p>02.03.2017</p> <p>Curriculum:</p> <p>CONTENTS</p>	<ul style="list-style-type: none"> -Self-reflection competence. - Language Competence 	<ul style="list-style-type: none"> -Build an understanding and a practical, critical and reflexive perspective about teaching and learning processes and their Planning. -Develop an ethical commitment as a teacher. -Develop a critical understanding about cultural knowledge and its potential to help pupils understand the world and their personal, social and cultural growth. -Develop informed self-criteria about basic learning at primary education and the teaching methodologies that favour and make this learning possible. 	<p>-Els continguts bàsics: selecció i organització.</p>

Appendixes

LANGUAGE		
<p>·To comprehend the key ideas of oral and written texts about organisational topics.</p> <p>·To produce academic oral and written texts about educational organisation which are grounded on the theory.</p> <p>·To use the educational and organisational specific terminology.</p>		
ACTIVITY	MATERIAL	TIME
<p>Activity 1:</p> <p>·Ken Robinson reading: <i>What is worth knowing?</i></p> <ul style="list-style-type: none"> - Discuss in small groups the main impressions and ideas of the chapter. - Discuss the ideas as a group class. - Do you agree or disagree with what Robinson proposes? Why? - Is it possible? Why? 	Reading	40'
<p>Activity 2:</p> <p>· <i>How are contents chosen?</i></p> <ul style="list-style-type: none"> - Who selects the contents and why. - External examinations and their impact on content selection. <p>· <i>What are the advantages and challenges of the current content selection?</i></p>	Ppt	30'
<p>Activity 3:</p> <p>· <i>What should compulsory Education offer to students?</i></p> <ul style="list-style-type: none"> - Decide in small groups which criteria could we use to decide whether something is worth learning in compulsory education? Why? - Share with the whole class. <p>· <i>Discuss: what makes content worth learning? Just immediate applicability? Usefulness? Why?</i></p> <ul style="list-style-type: none"> - Have you ever had a learning experience/content that has being valuable for you but it has not immediate application or utility? 		30'
<p>TASKS:</p> <p>Explain Task A.</p>		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
<p>07.03.2017</p> <p>Curriculum:</p> <p>Competence-based Education</p>	<p>-Self-reflection competence.</p> <p>- Language Competence</p>	<p>-Build an understanding and a practical, critical and reflexive perspective about teaching and learning processes and their Planning.</p>	<p>-Els continguts bàsics: selecció i organització.</p>

		<ul style="list-style-type: none"> -Develop an ethical commitment as a teacher. -Develop a critical understanding about cultural knowledge and its potential to help pupils understand the world and their personal, social and cultural growth. -Develop informed self-criteria about basic learning at primary education and the teaching methodologies that favour and make this learning possible. 	
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY		MATERIAL	TIME
<p>Activity 1:</p> <ul style="list-style-type: none"> · <i>What is to be competent?</i> <ul style="list-style-type: none"> - Think of a situation whether you have been really competent or not. → Why: what did you do? How did you do it? What were the outcomes? - Share what you did, how ... with your group? → Can you find any similarities/differences? · <i>According to the previous experiences: what is to be competent?</i> <ul style="list-style-type: none"> - Write a definition in groups. - Share with the whole group and create a class definition of competence. 		/	30'
<p>Activity 2:</p> <ul style="list-style-type: none"> · <i>Competences:</i> <ul style="list-style-type: none"> - Definition of competence. - Competences in the curriculum → Comparison with Robinson's competencies, Howards' multiple intelligences... + alignment with subjects. - Levels of competence. · <i>Competences-based education:</i> <ul style="list-style-type: none"> - What the implications of competence-based education are. - How competences are acquired: 		Ppt	40'

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methodologies that encourage competencies development.		
Activity 3: ·Show some activities and as a group decide whether they ask students to be competent-based or not. <ul style="list-style-type: none"> - Analyse a competence-based activity and a non-competence activity: What are the characteristics of competence-based activity? 	Ppt	40'
TASKS:		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
09.03.2017 Curriculum: Competence-based Education	-Self-reflection competence. - Language Competence	-Build an understanding and a practical, critical and reflexive perspective about teaching and learning processes and their Planning. -Develop an ethical commitment as a teacher. -Develop a critical understanding about cultural knowledge and its potential to help pupils understand the world and their personal, social and cultural growth. -Develop informed self-criteria about basic learning at primary education and the teaching methodologies that favour and make this learning possible.	-Els continguts bàsics: selecció i organització.
LANGUAGE			
·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology.			
ACTIVITY	MATERIAL	TIME	
Activity 1: <i>·Revise competence definition and competence-based education characteristics.</i> <ul style="list-style-type: none"> - Individually, students will have to answer the questions about competencies and competence-based education. 	Socratic	20'	
Activity 2: <i>·Analyse a competence-based exam: The department of Education has asked them to assess whether official</i>	Exams		

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<p><i>competence-based exams are actually competence based.</i></p> <ul style="list-style-type: none"> - Students will be given an official exam testing competence achievement. They will have to analyse the extent to which these exams are competence-based. - Propose some modifications or improvements in order to make these exams more competence-based. - Report the results of the analysis to the Catalan department of Education. <p><i>·Draw general conclusions from the findings reported.</i></p> <ul style="list-style-type: none"> - Are they competence-based? What competencies are they testing? - What implications do they have on teaching and learning practice? 		<p>15'</p> <p>15'</p> <p>15'</p> <p>15'</p>
<p>Activity 3:</p> <ul style="list-style-type: none"> · What are the challenges and difficulties of competence-based education? And the strengths? <ul style="list-style-type: none"> - General ideas + theory. (assessment, planning, curriculum organization, activities design...)/ (deep-learning, life-long learning, connections, ...). 	<p>Ppt</p>	<p>30'</p>
<p>TASKS:</p>		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
<p>14.03.2017</p> <p>Curriculum: Competence-based Education</p>	<ul style="list-style-type: none"> -Self-reflection competence. - Language Competence 	<ul style="list-style-type: none"> -Build an understanding and a practical, critical and reflexive perspective about teaching and learning processes and their Planning. -Develop an ethical commitment as a teacher. -Develop a critical understanding about cultural knowledge and its potential to help pupils understand the world and their personal, social and cultural growth. -Develop informed self-criteria about basic learning at primary education and the teaching methodologies that favour and make this learning possible. 	<p>-Els continguts bàsics: selecció i organització.</p>

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LANGUAGE		
<p>·To comprehend the key ideas of oral and written texts about organisational topics.</p> <p>·To produce academic oral and written texts about educational organisation which are grounded on the theory.</p> <p>·To use the educational and organisational specific terminology.</p>		
ACTIVITY	MATERIAL	TIME
<p>Activity 1:</p> <p>·Design a Competence-based activity in groups.</p> <ul style="list-style-type: none"> - Students will be given a competence they will be forced to work but they can add more competencies. - They will have to design a task for the students that is competence-based. - They will have to present it in front of the class and justify how this task is promoting competencies development. Peers will have time to provide feedback. 	/	60'
<p>Activity 2:</p> <p>·Competence sequencing and development along infant and primary education.</p> <ul style="list-style-type: none"> - The need to break down a competence and sequence it along infant and primary education. → Explain why. - How to do it. 	Ppt Xtec examples.	30'
<p>Activity 3:</p> <p>·If you were asked what compulsory education is and what it is for, what would you answer?</p> <ul style="list-style-type: none"> - Summarise what we have been working on during this month. [This will have to go to the Portfolio] 	/	30'
<p>TASKS:</p> <p>Questions CLIL reading</p>		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
<p>16.03.2017</p> <p>Curriculum: Innovation (CLIL)</p>	<p>-Language Competence.</p> <p>-Self-reflection Competence.</p>	<p>-Reflect and develop a practical and reflective practice about integrated teaching and learning of content and language.</p> <p>-Develop informed self-criteria about basic learning at primary education and the teaching methodologies that favour and make this learning possible.</p> <p>-Become aware of permanent</p>	<p>-Metodologies per a l'ensenyament – aprenentatge.</p> <p>- La integració de contingut i llengua: CLIL.</p>

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		professional learning relevance as a way to experience the teaching job and, especially, to reflect on the own practice. -Develop an ethical commitment as a teacher.	
LANGUAGE			
·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology.			
ACTIVITY		MATERIAL	TIME
Activity 1: ·Ken Robinson Video. - Can we improve education? Is there any other way to things? How can we do it?		<u>Video</u>	30'
Activity 2: ·What is innovation? What is Educational innovation? - As a group, discuss what innovation is and what educational innovation is. → what is educational innovation for. ·When can we innovate and what we should take into account? ·What makes an innovation sustainable?		Ppt	30'
Activity 3: ·Analyse some examples of innovations: - What do they change and why?; how do they do it?; who is involved?; what are the results?, what contexts.; are they top-down or bottom-up? - Share it with the whole class and find point in common.		Examples + grid	40'
Activity 4: ·Examples of innovations carried out in Catalonia and Spain. → what is behind innovations? What makes them successful or not?		Escola XXI Què qui com Xtec Individual initiatives	20'
TASKS: Hand-in Task A (analysis of materials). Explain Task B			

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
21.03.2017 Curriculum:	-Language Competence	-Reflect and develop a practical and reflective practice about	-Metodologies per a l'ensenyament –

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Innovation (CLIL)		<p>integrated teaching and learning of content and language.</p> <ul style="list-style-type: none"> -Develop informed self-criteria about basic learning at primary education and the teaching methodologies that favour and make this learning possible. -Become aware of permanent professional learning relevance as a way to experience the teaching job and, especially, to reflect on the own practice. -Develop an ethical commitment as a teacher. 	<p>aprenentatge.</p> <ul style="list-style-type: none"> - La integració de contingut i llengua: CLIL.
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY		MATERIAL	TIME
<p>Activity 1:</p> <ul style="list-style-type: none"> ·CLIL reading: <ul style="list-style-type: none"> - Discuss in small groups the main ideas of the reading. - Share the ideas with the whole group. 		Reading	30 (15+15')
<p>Activity 2:</p> <ul style="list-style-type: none"> · <i>What is CLIL?</i> <ul style="list-style-type: none"> - Definition of CLIL. - What does CLIL aim at. - What does CLIL imply ·Examples of good CLIL practices <ul style="list-style-type: none"> - 		Ppt Vídeo CLIL examples	30' 15'
<p>Activity 3:</p> <ul style="list-style-type: none"> ·<i>Imagine you have to attend a meeting in your school where it is going to be discussed whether implement CLIL or not. You have to prepare your point of view regarding the potentialities and challenges of CLIL: what would you say?</i> <ul style="list-style-type: none"> - Discuss in small groups the main strengths and challenges. - Prepare an intervention for the meeting. - Discuss it as a group. ·Summarise and explain the main potentialities and challenges for classroom teaching and learning. 		Ppt	45'

TASKS: Remember next task.		
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DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
23.03.2017 Planning: Context	-Language Competence	-Develop criteria and teaching resources appropriate for the different interest, needs and possibility of pupils. -Understand and think, plan and manage the classroom and the group in a social, relational and educative complexity. -Develop a positive attitude towards the integration of different ways of knowing, learning, thinking and reflecting in the teaching learning process that question the own experiences, knowledge and curiosity.	-La planificació de l'ensenyament i l'aprenentatge. -L'organització de la vida a l'aula.
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY		MATERIAL	TIME
Activity 1: Defining educational context and its effects on education. <ul style="list-style-type: none"> ·What is educational context? Does it affect education practice? <ul style="list-style-type: none"> - Discuss it in small groups. · Watch some videos and write down some contextual variables that characterise the examples watched. <ul style="list-style-type: none"> - Share with your group the examples analysed. - Revise the definition and how it affects education in light of the examples observed. 		Videos	10' 15' 15'
Activity 2: <ul style="list-style-type: none"> ·School and classroom context: <ul style="list-style-type: none"> - Definition - Characteristics. - Aspects to take into account. - Are better or worse contexts? Why do we need to take consider contextual variables 		Ppt	40'

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when teaching?		
Activity 3: <i>·What if you are teaching the group describe in the cards, what should you take into account? Why? How can you take advantage of the contextual variables?</i> <ul style="list-style-type: none"> - In groups - As a group-class. 	Cards	40'
TASKS: HAND-IN: Individual Context		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
28.03.2017 Planning	-Methodological Competence -Language Competence	-Develop criteria and teaching resources appropriate for the different interest, needs and possibility of pupils. -Build an understanding and a practical, critical and reflexive perspective about teaching and learning processes and their Planning. -Understand and think, plan and manage the classroom and the group in a social, relational and educative complexity.	-La planificació de l'ensenyament i l'aprenentatge. -L'organització de la vida a l'aula. - La integració de contingut i llengua: CLIL.
LANGUAGE			
·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology.			
ACTIVITY	MATERIAL	TIME	
Activity 1: <i>·Types of units and classification:</i> <ul style="list-style-type: none"> - Characteristics. - Global unit. 	Ppt	20'	
Activity 2: <i>·Selecting the topic of the unit:</i> <ul style="list-style-type: none"> - Select a topic according to the characteristics of the learners, the contextual variables...→ determine a topic that would be worth studying at a certain level. - Identify what the curriculum establishes students should learn for all the subjects involved (Make clear which subjects would be involved). 	Ppt +practice	45'	

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- Determine the main aim of the unit and the competencies that can be worked.		
Activity 3: <i>· Defining the learning outcomes of the global unit.</i> <ul style="list-style-type: none"> - Define what learning outcomes are. - Exemplify how to select learning outcomes. <i>· Analyse the characteristics of CLIL and global units learning outcomes</i> <i>· Practice in small groups +share together.</i>	Ppt +practice Unit Template	45'
TASKS:		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
30.03.2017 Planning	-Methodological Competence -Language Competence -Assessment Competence. -Self-reflection Competence.	-Develop criteria and teaching resources appropriate for the different interest, needs and possibility of pupils. -Build an understanding and a practical, critical and reflexive perspective about teaching and learning processes and their Planning. -Understand and think, plan and manage the classroom and the group in a social, relational and educative complexity. -Become aware of permanent professional learning relevance as a way to experience the teaching job and, especially, to reflect on the own practice. -Develop an ethical commitment as a teacher.	-La planificació de l'ensenyament i l'aprenentatge. -L'organització de la vida a l'aula. - La integració de contingut i llengua: CLIL.
LANGUAGE			
·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology.			
ACTIVITY	MATERIAL	TIME	
Activity 1: <i>·Group presentation of context part + peer-assessment</i> <ul style="list-style-type: none"> - 2-3 groups will have 5' to present their part of the work. - Afterwards the peers will have 5' to provide feedback, make suggestions, ... 	/	40'	
Activity 2:	Socrative	15'	

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<p>·<i>Objectives game</i>: In groups, students will have to decide whether the objectives presented are correct (formulation, integration...). They will have to justify their decision.</p>					
<p>Activity 3: ·<i>Defining Content</i>: From the description of competences and learning outcomes from the previous day, student will learn how to choose, align and formulate the learning content of their unit.</p> <ul style="list-style-type: none"> - Explanation and practice. 				Previous work PPT Unit Template	40'
<p>Activity 4: ·<i>Presentation of Bloom's Taxonomy and LOTS & HOTS</i>:</p> <ul style="list-style-type: none"> - The previous selection of objectives and contents are going to be revised in terms of the cognitive abilities they imply. Students will have to reflect up to what extent the contents and learning outcomes selected are balanced regarding cognitive demands, as well as conceptual, procedural and attitudinal work. - The necessary changes will be made. - 				PPT	20'
<p>TASKS: HAND-IN: Group context</p>					
DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT		
04.04.2017 Planning	-Methodological Competence -Language Competence	-Develop criteria and teaching resources appropriate for the different interest, needs and possibility of pupils. -Build an understanding and a practical, critical and reflexive perspective about teaching and learning processes and their Planning. -Understand and think, plan and manage the classroom and the group in a social, relational and educative complexity.	-La planificació de l'ensenyament i l'aprenentatge. -L'organització de la vida a l'aula. - La integració de contingut i llengua: CLIL.		
LANGUAGE					
·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology.					
ACTIVITY				MATERIAL	TIME

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<p>Activity 1: <i>·Language Awareness:</i> It will be analysed which language demands has the unit in terms of language (vocabulary, structures, genres...)</p> <ul style="list-style-type: none"> - Identify the language demands. → Language of/for/through learning. - Organise them → final level of attainment in the unit. - Practice → alignment with the learning outcomes, competencies and contents. 	<p>Ppt Previous Practice</p>	<p>40'</p>
<p>Activity 2: <i>·Fundamental learning of the unit:</i> Once outline the basic learning of the unit, it will be identified which the basic concepts of the unit are, what the school-compatible contents are, what the</p>	<p>Previous Practice</p>	<p>40'</p>
<p>Activity 3: <i>·Students will have to practice with a given topic:</i></p> <ul style="list-style-type: none"> - From the topic they will have to identify a competence they could work, draw a learning outcome and content learning and specify some language demands. - Share it with the rest of the group. 	<p>Topic</p>	<p>40'</p>
<p>TASKS: HAND-IN: Individual Planning</p>		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
<p>06.04.2017 Planning: Methodology</p>	<ul style="list-style-type: none"> -Methodological Competence -Language Competence - Classroom management Competence 	<ul style="list-style-type: none"> -Design language and content integrated proposals which are contextualised, innovative and participative and include diverse strategies to ensure all students can achieve the basic contents. -Develop criteria and teaching resources appropriate for the different interest, needs and possibility of pupils. -Integrate and use ICT in CLIL teaching and learning. -Develop an ethical commitment as a teacher. -Understand and think, plan and manage the classroom and the group in a social, relational and educative complexity. -Develop a positive attitude 	<ul style="list-style-type: none"> -Metodologies per a l'ensenyament – aprenentatge. -La planificació de l'ensenyament i l'aprenentatge. -L'organització de la vida a l'aula.

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		towards the integration of different ways of knowing, learning, thinking and reflecting in the teaching learning process that question the own experiences, knowledge and curiosity.	
LANGUAGE			
<p>·To comprehend the key ideas of oral and written texts about organisational topics.</p> <p>·To produce academic oral and written texts about educational organisation which are grounded on the theory.</p> <p>·To use the educational and organisational specific terminology.</p>			
ACTIVITY		MATERIAL	TIME
<p>Activity 1: <i>·Experiencing different Methodologies:</i> There will be different areas/environments. In each of them, students will have to do a task based on a given methodology. Students will be able to select the area they want to go, but each member of the group will have to go a different area and there will need to be a minimum of XXX per area and a maximum of XXX. Students will have to write down what the strengths and difficulties of each methodology are. Practical session: same topic different methodologies.</p> <ul style="list-style-type: none"> - Project. - PBL - Traditional. - Gamification - Corners - Workshops - Simulators. 		Activities + Material Template	60'
<p>Activity 2: <i>·Sharing with the group their experiences and reflections.</i></p> <ul style="list-style-type: none"> - First, they will share it with their team. - Second, they will share it with the whole class. 		Templates	20'
<p>Activity 3: <i>·Characteristics of these types of methodologies:</i></p> <ul style="list-style-type: none"> - Present different methodological approaches to teaching and learning. - Describe when it is worth using them. 		Ppt	40'
TASKS:			

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
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<p>18.04.2017</p> <p>Planning:</p> <p>Methodology</p>	<p>-Methodological Competence</p> <p>-Language Competence</p> <p>- Classroom management Competence</p> <p>-Assessment Competence.</p> <p>-Self-reflection Competence.</p>	<p>-Design language and content integrated proposals which are contextualised, innovative and participative and include diverse strategies to ensure all students can achieve the basic contents.</p> <p>-Develop criteria and teaching resources appropriate for the different interest, needs and possibility of pupils.</p> <p>-Integrate and use ICT in CLIL teaching and learning.</p> <p>-Develop an ethical commitment as a teacher.</p> <p>-Understand and think, plan and manage the classroom and the group in a social, relational and educative complexity.</p> <p>-Develop a positive attitude towards the integration of different ways of knowing, learning, thinking and reflecting in the teaching learning process that question the own experiences, knowledge and curiosity.</p> <p>-Become aware of permanent professional learning relevance as a way to experience the teaching job and, especially, to reflect on the own practice.</p> <p>-Develop an ethical commitment as a teacher.</p>	<p>-Metodologies per a l'ensenyament – aprenentatge.</p> <p>-La planificació de l'ensenyament i l'aprenentatge.</p> <p>-L'organització de la vida a l'aula.</p>
LANGUAGE			
<p>·To comprehend the key ideas of oral and written texts about organisational topics.</p> <p>·To produce academic oral and written texts about educational organisation which are grounded on the theory.</p> <p>·To use the educational and organisational specific terminology.</p>			
ACTIVITY		MATERIAL	TIME
<p>Activity 1:</p> <p>·Group presentation of planning part + peer-assessment</p> <ul style="list-style-type: none"> - 2-3 groups will have 5' to present their part of the work. - Afterwards the peers will have 5' to provide feedback, make suggestions, ... 		/	40'
<p>Activity 2:</p> <p>·What is an activity/task? What is it for?</p>		Examples of activities	40'

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<ul style="list-style-type: none"> - Each group will have a set of activities (ideally activities they have already seen). In groups, they will have to decide what each activity aims at, if they would do these activities at the same point in time. <p><i>·Present different types of activities: characteristics and aims of the different types of activities.</i></p>	ppt	
<p>Activity 3:</p> <p><i>·If all activities are not equal and do not aim to achieve/work the same, how do we sequence them?</i></p> <ul style="list-style-type: none"> - Introduce the concept of sequence and scaffolding. - Things to take into account when sequencing: basic concepts, competencies, objectives, content, language demands, what students need to know previous to the activity,... (Cummins quadrant +Bloom’s Taxonomy) <p>REMEMBER OBJECTIVES..., BASIC CONCEPTS AND CHARACTERISTICS OF COMPETENCE BASED ACTIVITIES</p>	Ppt	40’
<p>TASKS:</p> <p>HAND-IN: Group Planning</p>		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
<p>20.04.2017</p> <p>Planning:</p> <p>Activities</p>	<ul style="list-style-type: none"> -Methodological Competence -Language Competence - Classroom management Competence. -Materials development Competence. 	<ul style="list-style-type: none"> -Design language and content integrated proposals which are contextualised, innovative and participative and include diverse strategies to ensure all students can achieve the basic contents. -Develop criteria and teaching resources appropriate for the different interest, needs and possibility of pupils. -Integrate and use ICT in CLIL teaching and learning. -Develop an ethical commitment as a teacher. -Understand and think, plan and manage the classroom and the group in a social, relational and educative complexity. -Develop a positive attitude towards the integration of different ways of knowing, 	<ul style="list-style-type: none"> -Metodologies per a l’ensenyament – aprenentatge. -La planificació de l’ensenyament i l’aprenentatge. -L’organització de la vida a l’aula. -Els recursos per a l’ensenyament – aprenent CLIL.

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		learning, thinking and reflecting in the teaching learning process that question the own experiences, knowledge and curiosity.	
LANGUAGE			
<p>·To comprehend the key ideas of oral and written texts about organisational topics.</p> <p>·To produce academic oral and written texts about educational organisation which are grounded on the theory.</p> <p>·To use the educational and organisational specific terminology.</p>			
ACTIVITY		MATERIAL	TIME
<p>Activity 1:</p> <p>·<i>Sequencing an activity:</i></p> <ul style="list-style-type: none"> - Students will be given an activity. In groups will have to identify what the content, cognitive and language demands are and how they would sequence the activity/ scaffold it. - They will have to create a pyramid to exemplify the scaffolding process and the support they would provide. - Each group will present their process. 		Activity, card board	30' 15' 15'
<p>Activity 2:</p> <p>·<i>Materials and resources:</i> what materials and resources can we use for teaching and learning? What are the potentialities and drawbacks of them both for the teacher and the learner? Reading resources & Activities</p>		Reading + questions Ppt	60'
TASKS:			

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
25.04.2017 Planning: Materials & Resources	<p>-Methodological Competence</p> <p>-Language Competence</p> <p>- Classroom management Competence.</p> <p>-Materials Development Competence.</p>	<p>-Design language and content integrated proposals which are contextualised, innovative and participative and include diverse strategies to ensure all students can achieve the basic contents.</p> <p>-Develop criteria and teaching resources appropriate for the different interest, needs and possibility of pupils.</p> <p>-Integrate and use ICT in CLIL teaching and learning.</p> <p>-Develop an ethical commitment as a teacher.</p> <p>-Understand and think, plan and manage the classroom and the group in a social, relational and</p>	<p>-Metodologies per a l'ensenyament – aprenentatge.</p> <p>-La planificació de l'ensenyament i l'aprenentatge.</p> <p>-L'organització de la vida a l'aula.</p> <p>-Els recursos per a l'ensenyament – aprenent CLIL.</p>

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		<p>educative complexity.</p> <p>-Develop a positive attitude towards the integration of different ways of knowing, learning, thinking and reflecting in the teaching learning process that question the own experiences, knowledge and curiosity.</p>	
LANGUAGE			
<p>·To comprehend the key ideas of oral and written texts about organisational topics.</p> <p>·To produce academic oral and written texts about educational organisation which are grounded on the theory.</p> <p>·To use the educational and organisational specific terminology.</p>			
ACTIVITY		MATERIAL	TIME
<p>Activity 1:</p> <p>·<i>Accessing, adapting and creating activities:</i></p> <ul style="list-style-type: none"> - Where can we find activities or resources? - How can we use these activities or activities? → Establish criteria. - How can we create an activity? 		<p>Ppt</p> <p>Resources</p>	<p>40'</p>
<p>Activity 2:</p> <p>·<i>Present the activity template.</i></p> <p>· <i>Create an activity:</i> Students will have to create an activity for the topic we have been working as a group. They will have to establish the objectives, competencies and contents they intend to work, describe the activity for the teachers and the students, identify the content and language demands, scaffold the activity...</p> <ul style="list-style-type: none"> - Present the activity in front of the group. 		<p>Template</p>	<p>10'</p> <p>60'</p>
<p>TASKS:</p> <p>HAND-IN: Individual Activities</p>			

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
<p>27.04.2017</p> <p>Planning: ICT</p>	<p>-Methodological Competence</p> <p>-Language Competence</p> <p>- Classroom management Competence</p> <p>-Materials</p>	<p>-Design language and content integrated proposals which are contextualised, innovative and participative and include diverse strategies to ensure all students can achieve the basic contents.</p> <p>-Develop criteria and teaching resources appropriate for the</p>	<p>-Metodologies per a l'ensenyament – aprenentatge.</p> <p>-La integració curricular de les tecnologies.</p> <p>-La planificació de l'ensenyament i</p>

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	Development Competence.	different interest, needs and possibility of pupils. -Integrate and use ICT in CLIL teaching and learning. -Develop an ethical commitment as a teacher. -Understand and think, plan and manage the classroom and the group in a social, relational and educative complexity. -Develop a positive attitude towards the integration of different ways of knowing, learning, thinking and reflecting in the teaching learning process that question the own experiences, knowledge and curiosity.	l'aprenentatge. -L'organització de la vida a l'aula. -Els recursos per a l'ensenyament – aprenent CLIL.
LANGUAGE			
<p>·To comprehend the key ideas of oral and written texts about organisational topics.</p> <p>·To produce academic oral and written texts about educational organisation which are grounded on the theory.</p> <p>·To use the educational and organisational specific terminology.</p>			
ACTIVITY		MATERIAL	TIME
<p>Activity 1:</p> <p>·<i>Digital competence: what is it and how we should work it?</i></p> <ul style="list-style-type: none"> - Brief explanation of what digital competence is. Analyse and reflect how can we, as teachers, develop our own digital competence, as well as students digital competence. 		Ppt	30'
<p>Activity 2:</p> <p>·<i>Presentation of different tools and apps for teaching and learning.</i></p> <ul style="list-style-type: none"> - Students will be presented with a selection of tools that can be useful for teaching and learning. <p>·<i>How can we use social networks for teaching and learning.</i></p> <ul style="list-style-type: none"> - What different tools offer to education (both teachers and students). - Examples of different uses. 		Laptops Ppt	40'
<p>Activity 3:</p> <p>·<i>Creation of a class pinterest and symbaloo:</i></p> <ul style="list-style-type: none"> - Look for useful resources for teaching and 		Laptops Symbaloo Pinterest	40'

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learning. - Share useful resources with the classmates.		
TASKS:		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
02.05.2017 Planning: Inclusion	-Methodological Competence -Language Competence - Classroom management Competence -Materials Development Competence. -Assessment Competence. -Self-reflection Competence.	-Become aware of permanent professional learning relevance as a way to experience the teaching job and, especially, to reflect on the own practice. -Develop an ethical commitment as a teacher. -Understand and think, plan and manage the classroom and the group in a social, relational and educative complexity. -Develop a positive attitude towards the integration of different ways of knowing, learning, thinking and reflecting in the teaching learning process that question the own experiences, knowledge. -Develop an ethical commitment as a teacher.	-Metodologies per a l'ensenyament – aprenentatge. -La planificació de l'ensenyament i l'aprenentatge. -L'organització de la vida a l'aula.
LANGUAGE			
·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology.			
ACTIVITY	MATERIAL	TIME	
Activity 1: <i>·Group presentation of methodology part + peer-assessment</i> <ul style="list-style-type: none"> - 2-3 groups will have 5' to present their part of the work. - Afterwards the peers will have 5' to provide feedback, make suggestions, ... 	/	40'	
Activity 2: <i>·What is Inclusion? And Integration?</i> <ul style="list-style-type: none"> - Brain storming in order to create a class definition for these two concepts. - Look the Catalan documents how the following terms are defined: inclusion, integration, special need, high capacities, learning difficulties. 	Catalan documents on special needs.	30'	

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- Contrast the class definition with the official definition.		
Activity 3: <i>·What kind of levels/differences can we find in the classroom?</i> <ul style="list-style-type: none"> - From the special need definition identify types of needs we can find in the classroom: different rhythms and learning levels. - Who has a special need and when? <i>·Think a moment or a situation in which you needed more time or more help to do something and another moment in which you were expert. How did you feel? Why?</i>	Ppt	40'
Activity 4: <i>·Watch the short film Cuerdas:</i> <ul style="list-style-type: none"> - After watching the video reflect on the school and teachers' role, as well as the main characters and the rest of the pupils. 	Video	10'
TASKS: HAND-IN: Group Methodology		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
04.05.2017 Planning: Inclusion	-Methodological Competence -Language Competence - Classroom management Competence -Materials Development Competence.	-Understand and think, plan and manage the classroom and the group in a social, relational and educative complexity. -Develop a positive attitude towards the integration of different ways of knowing, learning, thinking and reflecting in the teaching learning process that question the own experiences, knowledge. -Develop an ethical commitment as a teacher.	-Metodologies per a l'ensenyament – aprenentatge. -La planificació de l'ensenyament i l'aprenentatge. -L'organització de la vida a l'aula.
LANGUAGE			
·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology.			
ACTIVITY	MATERIAL	TIME	
Activity 1: <i>·How do we take into account the different learning rhythms and levels?</i>	<u>Material XTEC</u> Ppt Example	40'	

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<ul style="list-style-type: none"> - Identifying the 'minimum contents' → establish levels. - Kind of activities (openness, no standardization...) - Grouping - Multimode and repetition 		
Activity 2: <i>Types of activities to take into account the different levels and rhythms?</i> <ul style="list-style-type: none"> - Reinforcement/ support activities - Expansion/growth activities 	Ppt Examples of activities	60'
Activity 3: <i>What are the challenges of having different learning rhythms and levels within a classroom? And the potentialities?</i> <ul style="list-style-type: none"> - Sharing and pointing out difficulties and challenges they have faced. 	/	10'
TASKS:		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
09.05.2017 Planning: Inclusion	-Methodological Competence -Language Competence - Classroom management Competence -Materials Development Competence. -Assessment Competence. -Self-reflection Competence.	-Understand and think, plan and manage the classroom and the group in a social, relational and educative complexity. -Develop a positive attitude towards the integration of different ways of knowing, learning, thinking and reflecting in the teaching learning process that question the own experiences, knowledge. -Develop an ethical commitment as a teacher.	-Metodologies per a l'ensenyament – aprenentatge. -La planificació de l'ensenyament i l'aprenentatge. -L'organització de la vida a l'aula.
LANGUAGE			
·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology.			
ACTIVITY		MATERIAL	TIME
Activity 1: ·Catalan documents: <i>Adapting an activity to take into account diversity in the classroom.</i>		Activity	60'

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<ul style="list-style-type: none"> - In groups they will have to adapt an activity according to the context provided. - Each group is going to share their proposal and the others will provide feedback. 		
<p>Activity 2:</p> <p><i>·What support do teachers have for special needs students?</i></p> <ul style="list-style-type: none"> - External support and their field. - Special needs teachers. <p><i>·Things to take into consideration when working with external services.</i></p>	Ppt	40'
Activity 3:		
<p>TASKS:</p> <p>HAND-IN: Individual Inclusion</p>		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
11.05.2017 Planning: Assessment	<ul style="list-style-type: none"> -Methodological Competence -Language Competence - Assessment Competence -Materials Development Competence. 	<ul style="list-style-type: none"> -Develop pedagogical criteria in front of assessment processes in relation to the support to pupils' learning process, as well as the teaching practice reflection. -Design an assessment system that allows establishing assessment criteria and identifying the pupils' learning outcomes. -Develop a positive attitude towards the integration of different ways of knowing, learning, thinking and reflecting in the teaching learning process that question the own experiences, knowledge. -Develop an ethical commitment as a teacher. 	<p>La integració curricular de les tecnologies.</p> <p>-La planificació de l'ensenyament i l'aprenentatge.</p> <p>-L'organització de la vida a l'aula.</p> <p>-L'avaluació a l'educació primària.</p> <p>·L'avaluació a CLIL.</p>
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY		MATERIAL	TIME
<p>Activity 1:</p> <p><i>·What is assessment?</i></p>		Wordle/ Word it out	30'

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<ul style="list-style-type: none"> - Individually, they will have to write all the words that come up to their mind related to assessment. They will have 5' - They will have 5' to make a group list of all the words related to assessment. - The groups words are going to be used to do a word cloud. <p>· <i>Analyse and reflect about their understanding of assessment.</i></p>		
<p>Activity 2:</p> <p>· <i>Assessment Definition:</i></p> <ul style="list-style-type: none"> - What assessment is and how it can be understood depending on the adopted approach. Reflect on the assessment approach the curriculum encourages. <p>· <i>Types of Assessment:</i></p> <ul style="list-style-type: none"> - Depending on the moment: diagnostic, learning, transfer and/or impact. - Purpose: formative or summative. - Assessor: self-assessment, peer-assessment, teacher assessment, external person. - Assessee: learner, teacher, school, institution... - Type of feedback: qualitative or quantitative. 	Ppt	40'
<p>Activity 3:</p> <p>· <i>Think about a situation in which the assessment help you to learn and another one in which assessment was a barrier for your learning: What characteristics had assessment in each situation?</i></p> <ul style="list-style-type: none"> - Think it individually. - Share with the peers. - Find communalities in the different situations. 	/	20'
<p>Activity 4:</p> <p>· <i>What is the purpose of assessment?</i></p> <ul style="list-style-type: none"> - Function - Characteristics of assessment according to these functions. <p>· <i>Characteristics of good assessment.</i></p>	Ppt	20'
<p>TASKS:</p>		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
16.05.2017	-Methodological	-Develop pedagogical criteria in front of assessment processes in	-La planificació de l'ensenyament i

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<p>Planning: Assessment</p>	<p>Competence -Language Competence - Assessment Competence -Materials Development Competence. -Self-reflection Competence.</p>	<p>relation to the support to pupils' learning process, as well as the teaching practice reflection. -Design an assessment system that allows establishing assessment criteria and identifying the pupils' learning outcomes. -Develop a positive attitude towards the integration of different ways of knowing, learning, thinking and reflecting in the teaching learning process that question the own experiences, knowledge. -Develop an ethical commitment as a teacher. -Become aware of permanent professional learning relevance as a way to experience the teaching job and, especially, to reflect on the own practice. -Develop an ethical commitment as a teacher.</p>	<p>l'aprenentatge. -L'organització de la vida a l'aula. -L'avaluació a l'educació primària. -L'avaluació a CLIL.</p>
LANGUAGE			
<p>·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology.</p>			
ACTIVITY		MATERIAL	TIME
<p>Activity 1: · <i>Group presentation of inclusion part + peer-assessment</i></p> <ul style="list-style-type: none"> - 2-3 groups will have 5' to present their part of the work. - Afterwards the peers will have 5' to provide feedback, make suggestions, ... 		/	40'
<p>Activity 2: · <i>Assessment criteria and assessment indicators:</i></p> <ul style="list-style-type: none"> - Define and explain what assessment criteria and indicators are and what they are for. - Practice together the creation and formulation of assessment criteria. 		<p>Ppt Previous activity</p>	30'
<p>Activity 3: · <i>Assessment criteria practice:</i></p> <ul style="list-style-type: none"> - In groups, the students will have to elaborate the assessment criteria to assess students 		<p>Previous activity</p>	40'

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<p>work.</p> <ul style="list-style-type: none"> - Each group will assess the criteria proposed. - Difficulties and challenges appeared during the establishment of the assessment criteria are going to be shared and discussed. 		
<p>TASKS: HAND-IN: Group Inclusion</p>		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
<p>18.05.2017</p> <p>Planning:</p> <p>Assessment</p>	<ul style="list-style-type: none"> -Methodological Competence -Language Competence - Assessment Competence -Materials Development Competence. 	<ul style="list-style-type: none"> -Develop pedagogical criteria in front of assessment processes in relation to the support to pupils' learning process, as well as the teaching practice reflection. -Design an assessment system that allows establishing assessment criteria and identifying the pupils' learning outcomes. -Develop a positive attitude towards the integration of different ways of knowing, learning, thinking and reflecting in the teaching learning process that question the own experiences, knowledge. -Develop an ethical commitment as a teacher. 	<ul style="list-style-type: none"> -La planificació de l'ensenyament i l'aprenentatge. -L'organització de la vida a l'aula. -L'avaluació a l'educació primària. ·L'avaluació a CLIL.
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY		MATERIAL	TIME
<p>Activity 1:</p> <p>·<i>Competence-based assessment:</i></p> <ul style="list-style-type: none"> - What is competence-based assessment? What does it aimed at? - What do we need to assess competencies? → Discussion and lead to the next part what are assessment instruments and strategies? 		Ppt	30'
<p>Activity 2:</p> <p>·<i>Assessment instruments and strategies:</i></p> <ul style="list-style-type: none"> - Define the terms assessment instruments and strategies. 		Ppt Socratic	20'

<ul style="list-style-type: none"> - Ask the students to come up with some assessment instruments and strategies they have encountered as learners. <p><i>·What the potentialities and shortcoming of each instrument and strategy are?</i></p> <ul style="list-style-type: none"> - Students will have to decide whether the instruments and strategies presented are useful for competence-based assessment. - An example of each instrument and strategy is going to be presented as well as their use and their limitations. 		40'
<p>Activity 3:</p> <p><i>·Create a rubric to assess the final presentation of the groups' project</i></p> <ul style="list-style-type: none"> - In small groups, students will have to decide what assessment criteria should be established to assess the final presentation. - The assessment criteria proposed is going to be shared and it is going to be decided the final assessment criteria as a group. 	/	25'
TASKS:		

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
<p>23.05.2017</p> <p>Planning:</p> <p>Assessment</p>	<ul style="list-style-type: none"> -Methodological Competence -Language Competence - Assessment Competence -Materials Development Competence. -Self-reflection Competence. 	<ul style="list-style-type: none"> -Develop pedagogical criteria in front of assessment processes in relation to the support to pupils' learning process, as well as the teaching practice reflection. -Design an assessment system that allows establishing assessment criteria and identifying the pupils' learning outcomes. -Develop a positive attitude towards the integration of different ways of knowing, learning, thinking and reflecting in the teaching learning process that question the own experiences, knowledge. -Develop an ethical commitment as a teacher. -Become aware of permanent professional learning relevance as a way to experience the teaching job and, especially, to 	<ul style="list-style-type: none"> -La planificació de l'ensenyament i l'aprenentatge. -L'organització de la vida a l'aula. -L'avaluació a l'educació primària. ·L'avaluació a CLIL.

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		reflect on the own practice. -Develop an ethical commitment as a teacher.	
LANGUAGE			
<p>·To comprehend the key ideas of oral and written texts about organisational topics.</p> <p>·To produce academic oral and written texts about educational organisation which are grounded on the theory.</p> <p>·To use the educational and organisational specific terminology.</p>			
ACTIVITY		MATERIAL	TIME
<p>Activity 1: ·Group presentation of assessment part + peer-assessment</p> <ul style="list-style-type: none"> - 2-3 groups will have 5' to present their part of the work. - Afterwards the peers will have 5' to provide feedback, make suggestions, ... 		/	40'
<p>Activity 2: ·Presentation of web 2.0 tools that can be used for assessment purposes</p>		Different tools	30'
<p>Activity 3: ·Students will have time to answer the different questionnaires:</p> <ul style="list-style-type: none"> - MSLQ - Thesis questionnaire - Teacher questionnaire. <p>· After answering the questionnaires they will have time for asking questions or doubts before handing in the final version of the project and the portfolio.</p>			40'
<p>TASKS: HAND-IN: Group Assessment</p>			

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
<p>25.05.2017 Planning:</p>	<p>-Methodological Competence -Language Competence - Assessment Competence -Materials Development Competence. -</p>	<p>-Develop pedagogical criteria in front of assessment processes in relation to the support to pupils' learning process, as well as the teaching practice reflection. -Design an assessment system that allows establishing assessment criteria and identifying the pupils' learning outcomes. -Develop a positive attitude towards the integration of</p>	<p>-La planificació de l'ensenyament i l'aprenentatge. -L'organització de la vida a l'aula. -L'avaluació a l'educació primària. ·L'avaluació a CLIL.</p>

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		different ways of knowing, learning, thinking and reflecting in the teaching learning process that question the own experiences, knowledge. -Develop an ethical commitment as a teacher.	
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY		MATERIAL	TIME
Activity 1:			
Activity 2:			
Activity 3:			
TASKS:			

DAY/TOPIC	COMPETENCIES	LEARNING OUTCOMES	CONTENT
01.06.2017 Final Presentation	-Language Competence. -Assessment Competence. -Self-reflection Competence.		
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY		MATERIAL	TIME
Activity 1:			
Activity 2:			
Activity 3:			
TASKS: HAND-IN: UNIT			

Appendix 21. Assessment Tasks for *Planning, Design and Assessment of Learning and Teaching Activity Course.*

ASSESSMENT TASK: CREATING A GLOBAL UNIT

General description and aim of the task

This assignment consists in designing and planning a global unit for primary learners that integrates content and language. This assignment will be done in small groups and it will be divided in different stages which will be linked with the contents worked in the course. The different phases are:

- 1- School context and justification of the topic.
- 2- Competences, learning outcomes, contents and language.
- 3- Learning activities.
- 4- Inclusion.
- 5- Assessment.

In addition, each group will have to present one of the phases in front of the class. You will have a maximum of 5 minutes to present the peculiarities of the work done, how you have done it, the challenges you have faced, the doubts you may have... At the end of your presentation, the rest of the groups will be able to make suggestions and provide feedback. The due date of the final version is May, the 30th of 2017. The final oral presentation will be on May, the 30th and June the 1st of 2017.

The due dates to hand in the different phases are summarized in the following table:

Task	Phase due date
Context and topic justification	28.03.2017
Competences, learning outcomes, contents and language	06.04.2017
Learning activities	02.05.2017
Inclusion	11.05.2017
Assessment	23.05.2017

PHASE 1: Context and Topic

In the first phase, as a group, you will have to decide the characteristics of the school where you would carry out the global unit proposed. For this reason, you will have to describe where the school is located, the peculiarities of the school, as well as the characteristics of the pupils

attending the school and, particularly, the characteristics and needs of the groups of student with whom you will carry out this unit. From this contextual description, you will have to choose a topic that allows you to take into account both the needs and characteristics of the students. Moreover, this topic should allow you to integrate both language and contents from different disciplines. You will have to justify how the topic selected fulfils all the aspects above mentioned and what methodological approach will allow you to work the proposed topic.

Assessment Criteria:

- The contextual variables of the school and the characteristics of the learners are identified and described.
- The selection of the topic is critically justified based on the school contextual variables, the learners' characteristics identified and the curricular demands.
- Different teaching and learning methods are reflectively and critically explored in order to choose those that will promote pupils' learning.
- The written assignment uses the adequate language and structures (terminology, genre...) of an academic work allowing the reader to understand the core characteristics of the proposal.

Format:

Times New Roman 12, 1,5 space. The maximum length is two pages.

PHASE 2: Planning

The aim of this phase is to decide what the main goal of the unit is and how it translates into competences development, learning outcomes and content and language selection. It is not only important to select them, but to consciously think how they are interrelated and aligned. This interrelation and alignment will have to be visible in your proposal. Finally, you will have to identify what the core contents of your unit are.

Assessment Criteria

- The competences, learning outcomes, the content and the language that are aimed to be worked in this unit are identified and aligned.
- Content and language are integrated in the planned proposal and are adequate to the context and prescribed curriculum.
- The specific language of a field of knowledge is identified and planned.

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- The core curricular content and language contents of the unit are identified.
- The written assignment uses the adequate language and structures (terminology, genre...) of an academic work allowing the reader to understand the core characteristics of the work.

Format:

Times New Roman 12, 1,5 space. The maximum length is two pages.

PHASE 3: Activities

The aim of this phase is to plan, select, design and sequence the activities that are going to promote learners to acquire the competences, learning outcomes, contents and language planned for this unit. In addition, these activities will have to be appropriately sequenced. The activities proposed will have to be adequate to the moment where they take place (previous knowledge, learning activity, synthesis) and adopt a competence-based approach. Moreover, these activities should be in line with the methodological approach proposed in this unit.

For this phase, it is compulsory to include at least: an already created activity, the adaptation of an already created activity, an activity created by you and an activity that includes an ICT resource. You must cite the place or the document from which you have extracted the activity. You can integrate the different options above (e.g. an existing activity that uses an ICT resource). However, you must remind that you not only have to describe the activities, but also include the necessary material the students will need.

Assessment Criteria

- The activities proposed are adequate to the methodological approach of the unit and enable the achievement of the content and language learning outcomes proposed.
- Content and language learning and competences are promoted through the pedagogical sequence and the scaffolding of the learning outcomes.
- Teaching and learning resources and ICT tools are selected according to the learning outcomes, learners' characteristics and the methodological approach proposed.
- Interaction, cooperative learning and meaning-making are promoted in the activities proposed.
- The written assignment uses the adequate language and structures (terminology, genre...) of an academic work allowing the reader to understand the core characteristics of the work.

PHASE 4: Inclusion

The aim of this phase is to identify the cognitive and linguistic demands of each task and, consequently, what necessary scaffolding and support will be needed considering the different learning levels and rhythms in the group you have described. This proposal will have to assure that all the pupils in the class can achieve the core contents of the unit, as well as those learners with higher learning level and rhythm can go deeply in the topic. Therefore, it may be necessary to revisit the activities proposed and adapt them to the characteristics of your learners. In some contexts, it may be necessary to include support or extra activities.

Assessment Criteria

- The content and linguistic demands of the unit and the activities proposed are analysed and identified.
- Extra material and resources to monitor pupils' learning are selected according to the content and linguistic demands identified.
- Different strategies and resources are planned in order to integrate the different learning rhythms and levels and to promote all students' learning.
- The written assignment uses the adequate language and structures (terminology, genre...) of an academic work allowing the reader to understand the core characteristics of the work.

PHASE 5: Assessment

The aim of this phase is to elaborate an assessment proposal that allows you and the learners to get information about pupils' learning and competence development so as to make a decision about the actions that need to be taken. The assessment proposal has to present the assessment criteria, the assessment strategies and instruments and a description of the type of assessment you will conduct (self-/peer-assessment, summative or/and formative...). You must remind that the assessment proposal needs to be aligned with the competences, learning outcomes, content and language. Therefore, the assessment procedure proposed needs to inform you and the learner about the level of attainment of all these aspects.

- The assessment criteria proposed is aligned with the competences, learning outcomes and the content and language selected.
- Assessment strategies and instruments are consciously selected to identify content and language learning process and competences attainment.

Appendixes

- Participative forms of assessment and mechanism to inform pupils' about their learning are planned.
- The written assignment uses the adequate language and structures (terminology, genre...) of an academic work allowing the reader to understand the core characteristics of the work.

FINAL VERSION

The final version will not consist just in the simple addition of the different phases you will have already handed in. You should consider the suggestions and feedback received to modify and improve the first version of your unit. You should remind that the unit should show your learning process.

Assessment Criteria

- The planned unit integrates and shows the contents worked in the course.
- ICT is used both for planning stages and for meaning-making during the teaching and learning process.
- The designed proposal is adequate for the school context and the prescribed curriculum.
- The methodological approach and the tasks are reflectively and critically selected and planned based on the purpose to promote the development of key competences among all students.
- Classroom diversity is consciously tackled and different strategies are proposed to promote learning among all students.
- The assessment procedure is reflectively and critically selected to allow the identification of content and language learning outcomes and competence development.
- The written assignment uses the adequate language and structures (terminology, genre...) of an academic work allowing the reader to understand the core characteristics of the work.

ASSESSMENT TASK: PORTFOLIO

The aim of the Portfolio is to show your learning process and competence development. For this reason, your Portfolio should include those pieces of evidence that prove what you have learnt and what your competence level is. These evidences can be either an initial draft of an assignment or the final version; assignments you are very proud of or you do not; resources from other subjects that you can relate with this course; pieces of news; educational debates;

any educational experience you may have outside the university... However, it must be justified why you have included this piece of evidence, how it relates to the subject and how it shows your learning process and competence level. It is important to link each piece of evidence with the competence/s you say to have developed (e.g. *This activity proves my XXX competence level because...; This assignment is an evidence of my XXX competence level because...; My current XXX competence level is, as the evidence attached shows, because...*).

The minimum requirements this portfolio should include are:

- **Initial Personal Statement.** You have to comment on your learning aims for this subject, what you expect from it and how you are planning to achieve it (support, resources, timing...).
- **A reading.** You have to include a reflection about one of the compulsory readings of this subject: what have you learnt, what doubts/questions have arisen, your critical perspective...
- **Four class activities.** You have to include at least four of the class activities we are going to do during the course. You must justify why you have included these activities and how they show your learning and competence level.
- **Personal reflection and discussion.** The subject contents move around two broad questions that are related to the two main blocks of the subject: the curriculum and planning. After each block, you will have to reflect on these two broad questions and provide a personal answer. The answer to these questions should show your personal integration and understanding of the contents of this course, as well as your point of view as a teacher.
- **Learning from other sources.** You should include at least two pieces of evidence from outside the subject that shows your 'teacher role' (i.e. piece of news, own experience...) and how you relate it to the subject.
- **Final self-assessment.** The Portfolio must finish with a final self-assessment of your learning process and competence attainment in this subject, taking into account what you stated in the 'initial personal statement', the objectives of this subject and the competences.

To create this portfolio we are going to use the technological the google sites tool. You must create your portfolio during the whole term. The final version is due date on the 6th of June, 2017 (See the section 'due dates').

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Assessment criteria

- The own beliefs about teaching and learning are identified and it is critically reflected and justified how these beliefs may impact on their future teaching.
- The strengths and the areas that need to be further developed, in terms of competence, are identified and future learning actions are established.
- Learning and teaching processes are designed taking into account the curriculum prescriptions, the theory and the characteristics of the students the activity is aimed at.
- Learning materials and resources are selected/ designed considering the teaching and learning goals and the contextual characteristics.
- Assessment proposals are designed taking into account the purpose they aim to serve.
- Classroom diversity and contextual factors are considered when planning, designing and assessing learning and teaching processes.
- The language demands are identified and adjusted according to the learning aims and the characteristics of the students.
- The language is adjusted to the linguistic genre used, the academic format and the characteristics of the teaching profession.

Due Dates

Assignment	Due Date	Peer-Assessment
Initial Personal Statement	23rd of February	2 nd of March
Personal Reflection 1 (What is compulsory Education for?)	23rd of March	31 st of March
Portfolio continuous assessment	20th of April	27 th of April
Personal Reflection 2 (How teaching can serve the purpose of compulsory Education?)	25th of May.	1 st of June
Final version	6th of June	

ASSESSMENT TASK: ANALYSIS OF A TEXTBOOK

Let's imagine that the school where you are working at considers changing the textbooks the next academic course. You are asked to analyse a specific book and to tell your colleagues in the next meeting why the school should or shouldn't decide to use this book. Your decisions have to be based on: a) how the book conceptualises education and b) how this conceptualisation may impact the teaching and learning process.

The conceptualisation of education should be analysed in terms of the adopted curriculum perspective, the content selection, the competence approach, the role of students and the teacher, the implicit values and the hidden curriculum and how this may impact on the teaching and learning process. The analysis guidelines attached in this document may help you in the analysis. However, these guidelines should help you to pay attention to different aspects of the textbook; it does not mean that you will find all these aspects up to the same extent in a book or you have to answer question by question. Likewise, analysing a book means analysing *what* is in the book not *how* you would use this book.

You will have to support your analysis with the theory we have been working on about the curriculum, the contents and the competence-based education. That is, you will have to justify each of your ideas in the analysis and present your own perspective. You should remember that you should create your own discourse based on the theory and avoid paraphrasing just what other authors have said. The textbook selected must be referenced using APA 6 style.

The extension of the assignment is four pages (sides). You should use a 1.5 space and 12 point letter. The due date is the 16.03.2017 through the virtual campus. The uploaded document should be a PDF document and the title of the document should be your niub: NIUB_textbook

The assessment criteria are:

- The conceptualisation of education from a textbook is identified by critically assessing the curricular approach, the content selection and the competence perspective the book represents.
- The impact of the textbook on the teaching and learning process is critically analysed, reflected and discussed.
- The analysis and discussion of a textbook's education perspective is supported by the theory worked in this and other courses.
- The learner builds his/her own teacher voice based on the theory and the critical analysis of the textbook.
- The assignments uses descriptive, explanatory and argumentative language that reinforces the textbook and the own perspective about education and its impact on teaching and learning.

Appendix 22. Planning for *Educational System and School Organisation* Course.

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
14.09.2017 Subject presentation	CLIL Management Self-reflection	<ul style="list-style-type: none"> ·To reflect on the importance of teamwork for the successful functioning of the organisation and the teaching and learning process. ·To be able to build up a thoughtful and critical perspective about the educational organisations. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing. 	1. Educational system.
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY		MATERIAL	TIME
Activity 1: Presentation of the subject: <ul style="list-style-type: none"> - The aims of the subject and what the subject is about. - The methodology of the course. - The assessment: explain briefly the different tasks. - Justify all the decisions I have been making in terms of organization and activities. - Tutorials and office hours. - Make the groups. - Explain the peer-assessment. Administer the thesis questionnaire.		Ppt Moodle Pdf with the different tasks	60'
Activity 2: Explain the innovation task.		PDF with the information and the deadlines	20'
Activity 3: · <i>Show the level of curriculum design and locate the levels where we will be working in this course.</i>		ppt	10'
Activity 4:		ARA's Article	30'

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<p>· What are the current challenges of our society? How do these challenges impact on education?</p> <ul style="list-style-type: none"> - In small groups identify what the main social challenges are. - Share these challenges and make a list with all of them. <p>Relate these challenges to the impact they may have on education.</p>		
TASKS:		

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
19.09.2017 Educational Innovation at organisational level	Self-reflection. CLIL Management. Research.	<ul style="list-style-type: none"> ·To understand the social complexity of educational processes as an opportunity to develop a participative, collaborative school culture that encourages the collaboration between different social agents and educational environments. ·To reflect on the importance of teamwork for the successful functioning of the organisation and the teaching and learning process. ·To assess the implications and consequences that organisational decisions have on the teaching and learning processes. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing. 	4.Innovation and School change.
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY	MATERIAL	TIME	
<p>Activity 1:</p> <ul style="list-style-type: none"> ·Refresh what innovation is and what educational innovation is. - Each group will have to put in order different parts of a sentence in order to create the definition of educational innovation and its main characteristics and types. 	Game ppt	30'-40'	

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<ul style="list-style-type: none"> - There will be more parts of a sentence than the ones they need so as to make them think what exactly innovation is. <p>·Once each group has created the definition, each idea included in the definition will be discussed in order to make sure everything is understood.</p>		
<p>Activity 2:</p> <p>·Why is innovation necessary in education? What is the role of innovation education in education?</p> <ul style="list-style-type: none"> - Discuss why innovation is necessary and what is to be innovative? - Current movements related to innovation (Escola nova xxi, escoles lliures...) - Effective schools movement, schools' improvement movement, improvement of the schools' efficacy movement. 	ppt	30'
<p>Activity 3:</p> <p>· What kind of innovations in terms of organisation?</p> <ul style="list-style-type: none"> - Individually, identify the aspects that could be innovated at the organisational level in a school and then share it with your group or the people next to you. - Share all the identified aspects and think about an example. <p>***If some of the organizational aspects that could be considered are not mention they will be presented and more examples will be provided.</p>	Ppt (innovation, organisational innovation and examples of each type).	20'
<p>Activity 4:</p> <p>·Anlyse some real examples of organisational innovations and determine how these innovations could be studied.</p> <ul style="list-style-type: none"> - Choose one of the examples of educational innovation. - Justify why it is an organisational innovation. - How can we know if this innovation is necessary or not? - Is this innovation sustained? How can we know it? - How can we analyse how the innovation has been carried out and implemented in the school? - How can we know whether the innovation is successful? - What aspects should also be considered that are not mentioned? Why? 	Give an example (pair of examples) of organisational innovations. Template.	40'

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- What suggestions can we make?		
TASKS:		

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
21.09.2017 Innovation & Social Challenges & LOMCE	CLIL Management. Self-reflection.	<ul style="list-style-type: none"> ·To understand the social complexity of educational processes as an opportunity to develop a participative, collaborative school culture that encourages the collaboration between different social agents and educational environments. ·To be sensitive towards the organizational proposals that favour social inclusion and attention to the diversity. ·To be able to build up a thoughtful and critical perspective about the educational organisations. 	<ol style="list-style-type: none"> 1. Educational System: Catalan and Spanish laws. 2. School contexts: the school as an organisation and its components. 4. Innovation & school change.
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY		MATERIAL	TIME
Activity 1: ·Continue with the analysis of an innovation and the possible strategies and approaches to know more about it.		ppt	30'
Activity 2: ·Look the first section of the LOMCE and identify what social challenges the law identifies, how these challenges impact education according to the LOMCE and how the law intends to overcome them. <ul style="list-style-type: none"> - Remind what the purposes of an educational law and the curriculum are. - Check the LOMCE in small groups and then put it together. ·What are the implications of the challenges identified by the LOMCE? Do you agree with the challenges identified? Do you miss any challenge?		Ppt	40'

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<p>Activity 3:</p> <ul style="list-style-type: none"> · A game to check what the students remember and already know about the Spanish educational laws. - The class will be divided in 4 corners (A, B, C, D). Each corner will be related to one of the questions about the educational Spanish and Catalan laws. - Each student will have to place himself/herself in the corner that represents the correct answer in his/her opinion. <p>After each question a brief explanation on the answer will be provided.</p>	<p>Game ppt</p>	<p>30'</p>
<p>Activity 4:</p> <ul style="list-style-type: none"> · Explanation why the educational laws are 'organic'. What does that mean? · A revision of the different educational laws and their main relevant aspects and implications in the education system and in the teaching and learning process. 		
<p>TASKS:</p>		

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
<p>26.09.2017 Educational Laws</p>	<p>CLIL Management. Self-reflection.</p>	<ul style="list-style-type: none"> ·To be able to build up a thoughtful and critical perspective about the educational organisations. ·To assess the implications and consequences that organisational decisions have on the teaching and learning processes. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing. 	<p>1. Educational system: Catalan and Spanish Educational laws.</p>
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY		MATERIAL	TIME
<p>Activity 1:</p> <ul style="list-style-type: none"> ·Study of the current laws: LOMCE and LEC. 		<p>Laws Ppt</p>	<p>40'</p>

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<ul style="list-style-type: none"> - First, we will make a brief brainstorming about what the students know about the LOMCE and the LEC. - Second, the main ideas will be presented and the main implications will be discussed. <p>·Visualisation of a video about the main LOMCE's changes in the education system. → discussion afterwards</p>	<p><u>Video about the LOMCE</u></p>	15'
<p>Activity 2:</p> <ul style="list-style-type: none"> · Analyse the structure of the educational laws: <ul style="list-style-type: none"> - They will have available in the moodle a folder with all the educational laws. They will have to look at different laws and infer what the main structure of a law is. - Put together the main findings. · The main structure of a law will be explained, as well as the information we can find in each section. 	<p>Educational laws (Moodle) Ppt</p>	30'
<p>Activity 3:</p> <ul style="list-style-type: none"> · The students will be asked some questions about the educational laws and they will have to find it in a specific amount of time. They will be working in small groups and they will have to know in which law they have to identify the information and in which section. 	<p>Socrative</p>	30'
<p>TASKS:</p> <p>Portfolio: Initial Personal Statement Read some articles about the LOMCE</p>		

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
28.09.2017 Laws & Spanish Educational System	Self-Reflection CLIL Management Research	<ul style="list-style-type: none"> ·To be able to build up a thoughtful and critical perspective about the educational organisations. ·To assess the implications and consequences that organisational decisions have on the teaching and learning processes. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing. 	1. Educational System: Catalan and Spanish Educational Laws. Spanish Educational system. The educational administration and its influence on the school.
LANGUAGE			
·To comprehend the key ideas of oral and written texts about organisational topics.			

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<p>·To produce academic oral and written texts about educational organisation which are grounded on the theory.</p> <p>·To use the educational and organisational specific terminology.</p>		
ACTIVITY	MATERIAL	TIME
<p>Activity 1:</p> <p>·Students will have to prepare a reading/some readings about the LOMCE. According to what we have worked in class and the ideas in the reading they have to prepare some reasons in favour and against the LOMCE.</p> <ul style="list-style-type: none"> - Students will be randomly divided in two groups: for and against. - Work the language structures needed for a debate, as well as the genres. - Agree on the reasons they are going to provide to defend their position, as well as who is going to moderate who is the speaker each time. - There will be a moderator who will manage the debate and who will sum up the main conclusions. 	<p>Reading</p>	<p>60'</p>
<p>Activity 2:</p> <p>· How is our educational system, what are its main characteristics?</p> <ul style="list-style-type: none"> - The students will have to make some statements about the educational system. - The teacher will make some statements about the structure of the educational system and students will have to position themselves according to the veracity or not of the statement. 	<p>Game</p>	<p>20'</p>
<p>Activity 3:</p> <p>·How is our educational system?</p> <ul style="list-style-type: none"> - Identify, analyse and reflect on the main characteristics of our educational system (stages, grades, cycles...). → compare our structure with the structure of other educational systems. - Implications of the structure of our educational system. - Analyse the main components of the current educational system. (Based on Antúnez chapter 1). 	<p>Ppt</p>	<p>30'</p>
<p>TASKS:</p>		

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DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
03.10.2017 Spanish Educational System: The current model	Self-reflection. CLIL Management.	·To be able to build up a thoughtful and critical perspective about the educational organisations. ·To assess the implications and consequences that organisational decisions have on the teaching and learning processes. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing.	1. Educational System: Spanish Educational System/ The current shape of our school model/ The educational administration and its influence on the school.
LANGUAGE			
·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology.			
ACTIVITY		MATERIAL	TIME
Activity 1: · What are the main administrations that can make decisions on the educational system? What competences do these administrations have? - Brain storming on the main ideas they have on this topic. - Organising these ideas.		ppt	20'
Activity 2: ·Check the LEC in order to identify what competences each administration (State, Autonomous Community and municipality) have in terms of Education decisions. - Check it in small groups. - Put it together. - Explain the competences of each administration.		ppt	40' 20' 20'
Activity 3: · What are the implications on the school system on the teaching and learning process of these external regulations? - Discuss in small groups and put it together with the other groups.		/	30'
Activity 4:		ppt	30'

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<p>·The external services as part of the educational system.</p> <ul style="list-style-type: none"> - What external services. - What their function is. 		
<p>TASKS: Video about different educational systems (Finland, Spain and EEUU). → select some</p>	<p><u>Video</u></p>	

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
<p>05.10.2017 Spanish Educational System: type of schools.</p>	<p>Self-Reflection CLIL Management</p>	<p>·To be able to build up a thoughtful and critical perspective about the educational organisations. ·To be sensitive towards the organizational proposals that favour social inclusion and attention to the diversity. ·To assess the implications and consequences that organisational decisions have on the teaching and learning processes. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing.</p>	<p>1. Educational System: the current school model. 2. Educational contexts: types of schools.</p>
LANGUAGE			
<p>·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology.</p>			
ACTIVITY		MATERIAL	TIME
<p>·Time to discuss in groups the challenges faced during the stage 1. The students will come to class with the problems, doubts, challenges and strengths they have faced during the process of elaborating the first stage and the final group. Groups will be paired with another group to whom they will explain the main characteristics and challenges. The other group will provide suggestion and ideas to improve both the process and the final results. ·Each group will have to face a template with the main ideas they have presented, what the other group has suggested and how they plan to</p>		<p>Template</p>	<p>30'</p>

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incorporate some of the ideas provided. In addition, they will be able to add new ideas that have come up just by observing and sharing with the other group.		
Activity 1: · What type of schools do we have? - In small groups identify as many types of school as possible. - Share the different types identified and organised them into groups according to different criteria (owner, grade/stage, area, aim...).	/	30'
Activity 3: · Explain the main characteristics of each type of school, what the aim of each type of school is, what consequences these characteristics have.	ppt	40'
Activity 4: · Is it possible another type of school with the current legislation and control? What implications does it have? - Provide examples of other types of school.	Other models of school	15'
TASKS:		

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
10.10.2017 The school as an organisation	CLIL Management Self-reflection	·To be able to build up a thoughtful and critical perspective about the educational organisations. ·To understand the social complexity of educational processes as an opportunity to develop a participative, collaborative school culture that encourages the collaboration between different social agents and educational environments. ·To assess the implications and consequences that organisational decisions have on the teaching and learning processes. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing.	2.School contexts: the school as a project: the school educational project.
LANGUAGE			
·To comprehend the key ideas of oral and written texts about organisational topics.			

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<p>·To produce academic oral and written texts about educational organisation which are grounded on the theory.</p> <p>·To use the educational and organisational specific terminology.</p>		
ACTIVITY	MATERIAL	TIME
<p>Activity 1: <i>Individually, students will have to describe what they understand by organisation and explain how organisation may impact on the teaching and learning process.</i></p>	Paper/ laptop	10'
<p>Activity 2: The group will be divided in three groups. Each group will have to solve the same situation, but their organisational conditions will differ (a controlling leader; distributed leadership; lax coordination). They will have some time to solve that specific situation. 6 volunteers will be necessary: 3 will be acting as the leaders and 3 as observers. The observers won't know what the activity is about until the end. Their role is to observe what is happening in the classroom. At the end, every group will have to think about the difficulties, challenges and strengths they have faced and what consequences it may have on education. The observers will have to give later their opinion. Go back to what they wrote about organisation and see if they have to change something.</p>	Dynamic	60'
<p>Activity 3: ·What is organization? What is educational organisation? What is educational system? <ul style="list-style-type: none"> - In small groups try to define these concepts. - Put the definitions all together and create the own definition. See how close or far are the definitions created from previous theoretical definitions of these concepts.</p>	ppt	30'
<p>Activity 4: · What characterises of any organisation does the school have? What are the peculiarities of a school as an organisation? · Analyse in depth the main components that characterise our educational system (based it on Antúnez's chapter 1)</p>	ppt	30'
TASKS:		

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
17.10.2017	CLIL Management.	·To be able to build up a thoughtful	2.School contexts:

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The school as a project	Self-reflection.	and critical perspective about the educational organisations. ·To understand the social complexity of educational processes as an opportunity to develop a participative, collaborative school culture that encourages the collaboration between different social agents and educational environments. ·To assess the implications and consequences that organisational decisions have on the teaching and learning processes. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing.	the school as a project: the school educational project.
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY		MATERIAL	TIME
Activity 1: ·The school projects: <ul style="list-style-type: none"> - Why the school needs some projects? - What projects do the school have? 		ppt	20'
Activity 2: ·The school projects and its characteristics: PEC, PCC, NOFC <ul style="list-style-type: none"> - The purpose of each project. - The characteristics of each project ·Legislation about the school project.		Ppt <u>Documents gestió del centre</u> <u>All the documents</u>	40'
Activity 3: · The students will be given an identity trait from a school project. They will have to look at the implications in terms of: school organisation, curriculum, management, resources... <ul style="list-style-type: none"> - Each group will decide which trait picks up and then they will have to work on the implications. - Share the implications identified by each trait. - The other groups will have to say whether they agree. 		Identity traits (focuse it on language).	40'

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DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
19.10.2017 The school as a project	CLIL Management. Self-reflection.	<ul style="list-style-type: none"> ·To be able to build up a thoughtful and critical perspective about the educational organisations. ·To understand the social complexity of educational processes as an opportunity to develop a participative, collaborative school culture that encourages the collaboration between different social agents and educational environments. ·To assess the implications and consequences that organisational decisions have on the teaching and learning processes. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing. 	2.School contexts: the school as a project: the school educational project.
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY	MATERIAL	TIME	
Activity 1: <ul style="list-style-type: none"> · The school's projects: PAC, MAC, PdD, Projecte lingüístic. - The purpose of each project - The main characteristics of each project 	Ppt <u>Documents gestió del centre</u> <u>All the documents</u>	50'	
Activity 2: <ul style="list-style-type: none"> ·Projects' game: the students will have some sentences from different documents and they have to decide from which document they have been removed. In small groups they will have to organise. Once they believe that they have the sentences organised, they will have to go to the blackboard and put them in order. The first group that achieves that will win. Afterwards, we will discuss why each sentence goes in each place. 	Sentences papers	20'	
Activity 3: <ul style="list-style-type: none"> ·Some sentences extracted from official school documents will be presented to them. They will have 	Sentences Ppt	20'	

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to identify what kind of mistake there is and why. They will get a point for each correct mistake they identify.		
Activity 4: · Other projects that are important for the school (Pla d'acollida, Pla de Millora...) and the importance of networking (xarxa de competencies bàsiques, mschools, ...). - Why these projects are necessary.	ppt	30'
TASKS:		

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
24.10.2017 School government	CLIL Management. Self-reflection.	·To understand the social complexity of educational processes as an opportunity to develop a participative, collaborative school culture that encourages the collaboration between different social agents and educational environments. ·To reflect on the importance of teamwork for the successful functioning of the organisation and the teaching and learning process. ·To assess the implications and consequences that organisational decisions have on the teaching and learning processes. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing.	3. Organizational dynamics: school government and management.
LANGUAGE			
·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology.			
ACTIVITY	MATERIAL	TIME	
Activity 1: ·Who is the management body in a school? What people are involved? What management organs do you know= - Brainstorming of the main people involved in the management team.	/	10'	

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<p>Activity 2:</p> <ul style="list-style-type: none"> · The school management organs and the impact of the LOMCE on them. · The impact of LOMCE on the management team. <ul style="list-style-type: none"> - The role of the headmaster according to the LOMCE. Comparison with its previous role and the possible implications it may have on the quality of the school. - Current headmaster's problems and challenges. - The headmaster's project (PdD). 	Ppt'	40'
<p>Activity 3:</p> <ul style="list-style-type: none"> ·Simulation based on the adaptation of the PEC through the PdD. <p><i>Let's imagine that you want to present your candidature to be chosen as school leader of your school. What proposals would you do? How would the identity traits of the school project be reflected on your proposal? What impact would that have on the teaching and</i></p>	Activity: school context + identity traits of a school project. Identity traits	50'
TASKS:		

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
26.10.2017 School government	CLIL Management Self-reflection.	<ul style="list-style-type: none"> ·To be able to build up a thoughtful and critical perspective about the educational organisations. ·To understand the social complexity of educational processes as an opportunity to develop a participative, collaborative school culture that encourages the collaboration between different social agents and educational environments. ·To reflect on the importance of teamwork for the successful functioning of the organisation and the teaching and learning process. ·To assess the implications and consequences that organisational decisions have on the teaching and learning processes. ·To analyse and assess the relevant aspect of school and their organisation, considering 	3.Organizational dynamics: school government and management.

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	the education community personal and interpersonal wellbeing.	
LANGUAGE		
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 		
ACTIVITY	MATERIAL	TIME
Activity 1:		30'
Activity 2: <ul style="list-style-type: none"> ·What characterises good leadership? (What is understood by 'good leadership'?). ·Models of leadership and its impact on the school organisation: distributed leadership, autocratic leadership, controlling leadership, hierarchic leadership... 	ppt	30'
Activity 2: Time to work on the innovation project in class.		60'
TASKS:		

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
31.10.2017 Teacher coordination	CLIL Management Self-reflection	<ul style="list-style-type: none"> ·To be able to build up a thoughtful and critical perspective about the educational organisations. ·To understand the social complexity of educational processes as an opportunity to develop a participative, collaborative school culture that encourages the collaboration between different social agents and educational environments. ·To reflect on the importance of teamwork for the successful functioning of the organisation and the teaching and learning process. ·To assess the implications and consequences that organisational decisions have on the teaching and learning processes. ·To analyse and assess the 	3.Organizational dynamics: the coordination and teachers' teams.

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		relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing.	
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY		MATERIAL	TIME
Activity 1: <ul style="list-style-type: none"> · Is coordination and collaboration between teachers important? If so, why? <ul style="list-style-type: none"> - Discuss in small groups and share the ideas with the rest of the group. ·When teachers should coordinate and when they shouldn't? Why? <ul style="list-style-type: none"> - Is it possible to learn from your colleagues? 		/	15'
Activity 2: <ul style="list-style-type: none"> · Type of coordination among teachers: stages, courses, cycles, departments, claustre. <ul style="list-style-type: none"> - Characteristics of each of these types of coordination. - Main functions of these structures. 		ppt	40'
Activity 3: <ul style="list-style-type: none"> · Coordination and collaboration challenges: <ul style="list-style-type: none"> - What are the factors that prevent coordination to occur? Why? - What possible solutions can we develop to prevent these challenges or to face them? 		ppt	30'
Activity 4: <ul style="list-style-type: none"> ·Coordination beyond the school limits: networking and interschool collaboration. <ul style="list-style-type: none"> - Why is it needed? Benefits and potential problems if it doesn't occur. - Real examples of networking. → students will have to look on the internet real examples of schools' networking 		ppt	40'
TASKS:			

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
02.11.2017 Teacher	CLIL Management Self-reflection.	·To be able to build up a thoughtful and critical	3.Organizational dynamics: the

<p>coordination: Dynamic</p>		<p>perspective about the educational organisations.</p> <ul style="list-style-type: none"> ·To understand the social complexity of educational processes as an opportunity to develop a participative, collaborative school culture that encourages the collaboration between different social agents and educational environments. ·To reflect on the importance of teamwork for the successful functioning of the organisation and the teaching and learning process. ·To assess the implications and consequences that organisational decisions have on the teaching and learning processes. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing. 	<p>coordination and teachers' teams.</p>
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY		MATERIAL	TIME
<p>Activity 1: The group will be divided in three smaller groups. Each group will have to simulate a situation in which teachers' coordination and agreement are involved. There will be different roles (headmaster, head of department, teacher...) and each person will also have a description of their personality or main personal trait. They will have to pretend that they are in a meeting and they have a specific amount of time to reach an agreement and decide how the problem will be solved.</p>		<p>3 different situations (all of them related to language) Different roles</p>	<p>60' (Explanation + Organisation of the group + solving the situation).</p>
<p>Activity 2: ·Individual reflection: students will reflect on the development of the simulation. They will have a template in order to focus their attention on some</p>		<p>Template</p>	<p>10'</p>

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aspects. Besides the topic included in the template, students will have space to put comments on other aspects that I may not have considered before.		
<p>Activity 3:</p> <ul style="list-style-type: none"> · Students will reflect with their group and with the whole class about their impressions, their difficulties and challenges raised. <ul style="list-style-type: none"> - Why have these challenges aroused? - What threats can these challenges have on teacher coordination, teacher relationships and, above all, students learning? - What solutions can we find for these problems? <p>***Main reflection: do not forget what the main purpose of education is, the decisions have to benefit the students and their learning, we need to put our personal differences aside.</p>	/	30'
TASKS:		

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
07.11.2017 Educational community & Participation	CLIL Management Self-reflection	<ul style="list-style-type: none"> ·To be able to build up a thoughtful and critical perspective about the educational organisations. ·To understand the social complexity of educational processes as an opportunity to develop a participative, collaborative school culture that encourages the collaboration between different social agents and educational environments. ·To reflect on the importance of teamwork for the successful functioning of the organisation and the teaching and learning process. ·To assess the implications and consequences that organisational decisions have on the teaching and learning processes. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal 	1.Educational system: the educational support services at the school. 2. Educational contexts: Educational community and participation.

	wellbeing.	
LANGUAGE		
·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology.		
ACTIVITY	MATERIAL	TIME
·Time to discuss in groups the challenges faced during the stage 1. The students will come to class with the problems, doubts, challenges and strengths they have faced during the process of elaborating the first stage and the final group. Groups will be paired with another group to whom they will explain the main characteristics and challenges. The other group will provide suggestion and ideas to improve both the process and the final results. ·Each group will have to face a template with the main ideas they have presented, what the other group has suggested and how they plan to incorporate some of the ideas provided. In addition, they will be able to add new ideas that have come up just by observing and sharing with the other group.	Template	30'
Activity 1: · The school as a democratic organisation. Discussion: <ul style="list-style-type: none"> - Should the school be a democratic organisation? Why? - How can a school be democratic? 	/	20'
Activity 2: ·The school as a democratic organisation: organs of participation. <ul style="list-style-type: none"> - Consell escolar (formal) - AFAs - Assambles d'estudiants (informals). → Real examples (Ceip Aimara Berri) 	Ppt videos	30'
Activity 4: ·The school beyond the wall limits. How can the school open itself to the rest of the community? <ul style="list-style-type: none"> - Examples of school openness (Comunitats d'aprenentatge, the school and the context...). - Examples of successful involvement of the school community. ***The school does not only belong to the teachers, but to the whole community.	Ppt videos	50'
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DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
09.11.2017 The space	Classroom Management. Self-reflections	<ul style="list-style-type: none"> ·To be able to build up a thoughtful and critical perspective about the educational organisations. ·To assess the implications and consequences that organisational decisions have on the teaching and learning processes. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing. 	3.Organizational dynamics: space organization to favour the pedagogical interaction.
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY		MATERIAL	TIME
Activity 1: ·Individually, draw their educational space that would be ideal for their teaching/learning practice. After drawing their space, they will have to briefly justify what represents their drawing and why it is ideal for them.		paper	30'
Activity 2: ·What is the educational space? <ul style="list-style-type: none"> - First discuss all together what we understand by educational space. - Implications of each understanding on the organisation of the space. ·What is understood by educational space and what characteristics this space has → the educational space of 21 st Century.		ppt	30'
Activity 3: · The variables that determine the educational space and the conditions the space has to fulfil. <ul style="list-style-type: none"> - The current legislation about educational space and characteristics of school buildings. 		Ppt <u>Decret requisitis minims espais</u>	30'
Activity 4: ·What elements belong to the educational space?		ppt	30'

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What are their characteristics? - Discussion + theory		
TASKS:		

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
14.11.2017 The space	Classroom Management. Self-reflection	<ul style="list-style-type: none"> ·To be able to build up a thoughtful and critical perspective about the educational organisations. ·To assess the implications and consequences that organisational decisions have on the teaching and learning processes. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing. 	3.Organizational dynamics: space organization to favour the pedagogical interaction.
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY		MATERIAL	TIME
Activity 1: · The classroom space: how to organise a classroom (only the materials, we will work on the students later)		ppt	30'
Activity 2: ·How does the space determine the teaching and learning process, as well as the school relationships? - First, discuss it with the whole group. Subsequently, work on the theory. ·What factors/ conditions make possible a different use of the space?		ppt	30'
Activity 3: ·Create their ideal educational space in small groups, based on their initial design and the theory worked. They will have to justify the decisions they have made. Then, individually, they will have to explain how similar or different the ideal educational space is from their first model, why they have made those changes, why they believe this new model is better... Prepare it to be presented to their colleagues in the		Paper	40'

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poster's session.		
TASKS:		

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
16.11.2017 The space & The time	Classroom Management Self-reflection.		3.Organizational dynamics: space organization to favour the pedagogical interaction. The use of time as an educational resource.

LANGUAGE

- To comprehend the key ideas of oral and written texts about organisational topics.
- To produce academic oral and written texts about educational organisation which are grounded on the theory.
- To use the educational and organisational specific terminology.

ACTIVITY	MATERIAL	TIME
Activity 1: ·Poster session: Each group will be presenting their poster in front of the rest of the class. One of the members will stay next to the poster in order to solve the doubts the other groups may have. The other members will go to look at the other posters and will rate them according to a given criteria. We will see which space wins and what the main strength of that space is.	Poster socratic	40'
Activity 2: What is school time? - Discuss in small groups what is understood by school time. - Put it all together and try to define time. - Provide different definitions of time.	<u>Organisation of school time</u>	30'
Activity 3: What determines the organisation of school time? What impact does it have on the teaching and learning process?	ppt	40'
TASKS:		

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
21.11.2017 the time	Classroom Management Self-reflection	·To be able to build up a thoughtful and critical perspective about the educational organisations. ·To assess the implications and consequences that organisational	3.Organizational dynamics. The use of time as an educational resource.

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		<p>decisions have on the teaching and learning processes.</p> <ul style="list-style-type: none"> ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing. 	
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY		MATERIAL	TIME
<p>Activity 1: Activity: organisation of the school time according to the curriculum. Students will have to work with the curriculum and organise the schedule according to the parameters the curriculum establishes. Afterwards, they will have to justify how they have used the time. Provide examples of different uses of time: Institut SIL, escola la Trama...</p> <p>***the time is an educational resource the school should use according to its purposes. It shouldn't be the other way around.</p>		Curriculum Ppt <u>Escola la trama</u>	40' 20'
<p>Activity 2: ·Academic calendar: how is the calendar organised? Potentialities and drawbacks.</p>		Articles ppt	30'
<p>Activity 3: The impact of time on the teaching and learning process: how do you use time? The implicit messages we send to students do to time use.</p>		Ppt Real examples	30'
<p>TASKS: Reading on type of school day and its benefits and drawbacks.</p>			

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
23.11.2017 The time	Classroom Management Self-reflection	<ul style="list-style-type: none"> ·To be able to build up a thoughtful and critical perspective about the educational organisations. ·To assess the implications and consequences that organisational decisions have on the teaching 	3.Organizational dynamics: the use of time as an educational resource.

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		and learning processes. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing.	
LANGUAGE			
·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology.			
ACTIVITY		MATERIAL	TIME
Activity 1: Debate on split school day or continuous school day *** Conclusion: it has not been demonstrated that a school day works better than another. It strongly depends on contextual variables and, therefore, what may work for a context, may not work for another context.		Readings	60'
Activity 3: Time to work on the innovation project in class		/	60'
TASKS: Reading on the time			

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
28.11.2017 Inclusion and Students organisation	Classroom Management Self-reflection	·To understand the social complexity of educational processes as an opportunity to develop a participative, collaborative school culture that encourages the collaboration between different social agents and educational environments. ·To be sensitive towards the organizational proposals that favour social inclusion and attention to the diversity. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing.	2. Educational Contexts: educational contexts and areas to encourage inclusion. 3. Organizational dynamics: students' grouping and its implications.
LANGUAGE			
·To comprehend the key ideas of oral and written texts about organisational topics.			

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<p>·To produce academic oral and written texts about educational organisation which are grounded on the theory.</p> <p>·To use the educational and organisational specific terminology.</p>		
ACTIVITY	MATERIAL	TIME
<p>Activity 1:</p> <p>· How are students grouped in the different types of school?</p>	/	20'
<p>Activity 2:</p> <p>· Students will have to decide how they would group students and provide reasons for that.</p>	Drawing or others	
<p>Activity 3:</p> <p>· Grouping activity: students will have in front of them examples of different types of grouping and they will have to decide when they would decide that kind of grouping and why.</p> <ul style="list-style-type: none"> - First in small groups and afterwards all together. <p>· How can grouping promote or prevent inclusion? How grouping should be considered according to what it is stated in the PEC?</p> <p>***Conclusion: grouping should serve the purpose of education, not the already given grouping determine the type of education offered. Grouping must vary and be flexible enough according to the activity, the task in hand and the different purposes.</p>	Different types of grouping ppt	60'
TASKS:		

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
<p>30.11.2017</p> <p>Inclusion and students organisation</p>	<p>Classroom Management.</p> <p>Self-reflection.</p>	<p>·To be able to build up a thoughtful and critical perspective about the educational organisations.</p> <p>·To understand the social complexity of educational processes as an opportunity to develop a participative, collaborative school culture that encourages the collaboration between different social agents and educational environments.</p> <p>·To be sensitive towards the organizational proposals that favour social inclusion and attention to the diversity.</p>	<p>2. Educational Contexts: educational contexts and areas to encourage inclusion.</p> <p>3. Organizational dynamics: students' grouping and its implications.</p>

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		·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing.	
LANGUAGE			
<p>·To comprehend the key ideas of oral and written texts about organisational topics.</p> <p>·To produce academic oral and written texts about educational organisation which are grounded on the theory.</p> <p>·To use the educational and organisational specific terminology.</p>			
ACTIVITY		MATERIAL	TIME
<p>Activity 1:</p> <p>·Students' grouping as a measure for inclusion → relate it to the PEC and the school's traits.</p> <p>Types of grouping.</p> <ul style="list-style-type: none"> - If the trait of the school says they are an 'inclusive school', what implications does it have in terms of grouping? - What implications have Aula d'Accollida, Aula NEE, USEE... on grouping? And on individual students? <p>***Conclusion: organisation is important because it has a direct impact on education.</p>		<p>PEC identity traits.</p> <p>Examples of inclusion</p>	40'
<p>Activity 2:</p> <p>Revisit the grouping and the space drawing they had described in previous session and see whether there are changes or not and based on what. → try to look for evidences that support that.</p> <ul style="list-style-type: none"> - In small group and, afterwards, it will be put all together. 		/	40'
<p>Activity 3:</p> <p>Video or article on grouping and inclusion</p>			
TASKS:			

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
05.12.2017 Assessment	Assessment/ CLIL Management Self-reflection.	<p>·To be able to build up a thoughtful and critical perspective about the educational organisations.</p> <p>·To assess the implications and consequences that organisational decisions have on the teaching and learning processes.</p>	4. Innovation and change: self-assessment and institutional improvement.

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		·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing.	
LANGUAGE			
<p>·To comprehend the key ideas of oral and written texts about organisational topics.</p> <p>·To produce academic oral and written texts about educational organisation which are grounded on the theory.</p> <p>·To use the educational and organisational specific terminology.</p>			
ACTIVITY		MATERIAL	TIME
<p>Activity 1:</p> <p>· What is assessment? What is institutional evaluation?</p> <ul style="list-style-type: none"> - Check what they remember about assessment, kinds of assessment and 		Socratic	20'
<p>Activity 2:</p> <p>· School assessment: Brain storming on the</p> <ul style="list-style-type: none"> - What type of school assessment do they know? - When does a school have to assess its work? - Why is assessment important for school? → Schools that learn movement. <p>What aspects have to be assessed in terms of school functioning?</p>		ppt	30'
<p>Activity 3:</p> <p>·The current Catalan model: AVAC</p> <ul style="list-style-type: none"> - Make the students go through it to identify the main characteristics. They will do it in small groups and then we will share the findings. - Explain the model and its main characteristics. - What the main consequences are of this model? <p>***The importance given to assessment criteria, which are placed right after the objectives.</p> <p>*** Institutional evaluation in line with quality policies and the neoliberalism.</p>		<p>Ppt</p> <p><u>AVAC model</u></p> <p><u>School evaluation</u></p> <p><u>Exemple aplicació</u></p> <p><u>AVAC</u></p>	
TASKS:			

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
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12.12.2017 Assessment	Assessment/CLIL Management Self-reflection.	<ul style="list-style-type: none"> ·To be able to build up a thoughtful and critical perspective about the educational organisations. ·To assess the implications and consequences that organisational decisions have on the teaching and learning processes. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing. 	Innovation and change: self-assessment and institutional improvement.
LANGUAGE			
<ul style="list-style-type: none"> ·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology. 			
ACTIVITY		MATERIAL	TIME
Activity 1: <ul style="list-style-type: none"> ·Time to discuss in groups the challenges faced during the stage 1. The students will come to class with the problems, doubts, challenges and strengths they have faced during the process of elaborating the first stage and the final group. Groups will be paired with another group to whom they will explain the main characteristics and challenges. The other group will provide suggestion and ideas to improve both the process and the final results. ·Each group will have to face a template with the main ideas they have presented, what the other group has suggested and how they plan to incorporate some of the ideas provided. In addition, they will be able to add new ideas that have come up just by observing and sharing with the other group. 		/	30'
Activity 2: <ul style="list-style-type: none"> ·Other assessment approaches: E2Cat, EFQM, ISO 		Ppt E2cat EFQM	30'
Activity 3: Creation of assessment indicators.		Ppt examples	40'
TASKS:			

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
14.12.2017 Assessment:	Assessment/CLIL Management	<ul style="list-style-type: none"> ·To be able to build up a thoughtful and critical 	Innovation and change: self-

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Organisational Dynamic	Self-reflection.	perspective about the educational organisations. ·To assess the implications and consequences that organisational decisions have on the teaching and learning processes. ·To analyse and assess the relevant aspect of school and their organisation, considering the education community personal and interpersonal wellbeing.	assessment and institutional improvement.
LANGUAGE			
·To comprehend the key ideas of oral and written texts about organisational topics. ·To produce academic oral and written texts about educational organisation which are grounded on the theory. ·To use the educational and organisational specific terminology.			
ACTIVITY		MATERIAL	TIME
Activity 1: Answer the questionnaires: thesis, subject, PID			
Activity 2: Time to work on the innovation project.			
Activity 3:			
TASKS:			

DAY/TOPIC	COMPETENCES	LEARNING OUTCOMES	CONTENT
19.12.2017			
LANGUAGE			
ACTIVITY			
Activity 1: Final presentations			
Activity 2:			
Activity 3:			
TASKS: Deadline: Innovation projects.			

Appendix 23. Assessment Tasks for *Educational System and School Organisation Course.*

ASSESSMENT TASK: INNOVATION PROJECT

The aim of the innovation project is to analyse an innovation, carried out in a Catalan School, from the school organisation perspective (official documents, teacher organisation, space, time, resources...).

In general terms, the process you will have to follow is:

1. Select an organisational innovation.
2. Decide what and how you will study the innovation.
3. Justify why this innovation is relevant (based it on theory).
4. Analyse the results obtained.
5. Explain the potentialities and the drawbacks of the innovation carried out in the school based on the results and the theory and, therefore, what suggestions you will make.

This project will be done in small groups and will be divided in different stages during the whole course. As part of this project, you will have to peer-assess your peer's work both individually and in group. In class, your group and you will exchange the process followed and the challenges faced during each stage with another group. After this exchange you will have to provide suggestions and recommendations to the other group. As for the feedback received, your group and you will have to write down the comments made by the other group using the template provided by the teacher. In addition, you will have to provide individual feedback to your peers' based on the assessment criteria using the Workshop tool from the Moodle.

The due dates of each stage are:

Group Work	Peer-Feedback (individually)	Questionnaire
Stage 1 (05/10)	12/10	19/10
Stage 2 (07/11)	14/11	21/11
Stage 3 (05/12)	12/12	19/12
Final Version (19/12)		

The general structure of the final version is:

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1. Introduction: description of the innovation (what the innovation is about, where the innovation is implemented; when the innovation was implemented; who implemented the innovation...).
2. Theoretical framework (revise theoretical information that supports the relevance of this innovation).
3. Method: explanation on how you have studied the organisational innovation (participants, instruments...).
4. Results of the analysis based on organisational aspects (documents, resources, space, time, teacher organisation, school management...).
5. Potentialities, drawbacks and suggestions.
6. Conclusions.
7. References.

The maximum length is 20 pages and the format is Times New Roman 12, Space 1.5.

The **assessment criteria** of the final version are:

- Detailed information to understand the innovation, its characteristics and the school is provided.
- The analysis of the innovation is grounded on theory and related to the course contents.
- The tools and strategies to collect information allow to provide an answer to the stated objective.
- The analysis of the innovation is focused on the organisational aspects.
- The implications and consequences that organisational decisions have on the teaching and learning processes are assessed and discussed.
- Suggestions are provided based on the theory and the results obtained.
- The written document is adequate in terms of academic style, the use of references and the genre and terminology used.

STAGE 1

The purpose of this first stage is to establish the foundations to develop an outstanding project. For this reason, you are asked to select the innovation you want to study, to establish the objective of your project, what you will need to do so as to reach that objective and how you plan to do it.

The assessment criteria are:

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- An organisational innovation is described in terms of the organisational aspects, its characteristics and its innovative nature for the school.
- The project's objective is well-written and feasible to attain through the development of this project.
- The information to be collected and the techniques to collect this information are explained.
- The planning to collect the information and develop the different tasks is adjusted to the time provided and the information required.
- The written document is adequate in terms of academic style, the use of references and the genre and terminology used.

You will have to submit this template in this stage (you will have an editable Word document on the campus):

1. Project's title
2. Why do you believe this is an innovative practice from the organisational perspective?
What information or data do you already have at this point?
3. Project's objective.
4. Theory and references you will have to check to base your work.
5. Data you aim to collect, as well as the techniques and strategies you will use.
6. Timeline with the different tasks and processes to be done.

The maximum length is 4 pages and the format is Times New Roman 12, Space 1.5.

STAGE 2 & STAGE 3

The aim of these two stages is to show your progresses in the development of the project, as well as provide/receive feedback to guide your project and the steps you are doing. Therefore, in each stage you will have to submit what you already have of the project and the template provided below.

Assessment Criteria:

- The tasks and processes planned are being accomplished as predicted and changes are justified.
- The processes followed to develop the project are adequate to analyse an innovation from the organisational perspective.
- The theory and references are used to justify the processes, strategies and tools used.

- The course content is used to study the innovation.
- The written document is adequate in terms of academic style, the use of references and the genre and terminology used.

Template (you will have it in an editable Word document on the Moodle):

1. What changes have you made on the initial design according to the feedback received?
2. What challenges have you faced? How you have solved them? Is there anything that you have not been able to solve?
3. What difficulties are you facing when writing the theoretical framework?
4. What challenges are you encountering when developing the data collection instruments or when collecting the data?
5. Have you started analysing the data? How are you doing it or how do you aim to do it?
6. What of the planned processes and tasks have you done yet? what ones you have not? Why?
7. What are your objectives for the following stage? How you plan to accomplish them?

ASSESSMENT TASK: PORTFOLIO

The aim of a portfolio is to show your learning process and work during a given period of time. For this reason, the goal of this task is that you **reflect on and describe your own learning process and competence level providing evidences that sustain your reflection and improvement**. Therefore, the portfolio must include: a) your learning outcomes; b) what your starting point is (potentialities & areas of improvement); c) what you plan to do to attain these learning outcomes; d) how you are progressing in terms of content acquisition and competence development; and e) evidences that show what and how you are learning.

You should bear in mind that this portfolio has to document your learning and anyone going through your portfolio should be able to know how your learning process has been. For instance, if you say "I have included this activity because it shows my classroom management competence level", you should also add:

- What competence(s) have you developed through this task?
- Why do you believe that this artefact shows your learning/competence level?
- How have you improved? What actions have led you to improve?
- What evidences are you providing to illustrate this learning (drafts, previous tasks, different versions of the same task, changes made after receiving feedback...).

Appendixes

- Where are you now in terms of learning? How far or close are you from where you want to be at the end?

Your portfolio must include at least the following parts:

- 1) Initial Personal Statement:** You have to reflect on and describe your learning aims for this subject; what you expect from it and how you are planning to achieve it (support, resources, timing...); what your starting point is in relation to the competences to be developed in this subject; and what you plan to do to attain the learning outcomes established.
- 2) Evidences of your learning:** You should include a minimum of six evidences (readings, class activities, and learning from other sources) that show your learning process, the competences development and the acquisition of the contents from the four blocks of this course.
- 3) Reflection on our current Educational System:** you will have to reflect on our current Education system (laws, structure, services...), the implications it has on students learning and the future challenges.
- 4) Reflection on the Space activity:** you will have to include both tasks and the main conclusions derive from the activities.
- 5) Final Assessment:** The Portfolio must finish with a final self-assessment of your learning process and competence attainment in this subject, taking into account what you stated in the 'initial personal statement', the objectives of this subject and the competences.

The portfolio will be created using Google sites. You can decide either to adapt last year google site (DO NOT DELATE LAST YEAR'S PORTFOLIO!!!) or create a new one. The due date of the final version is the 21st of December.

Assessment Criteria:

- The student reflects critically on school organization and its social and learning role.
- The student identifies his/her own teaching characteristics, his/her potentialities and the aspects that s/he needs to develop regarding school organization.
- The student documents his/her learning and competence development providing evidences and reflections that show his/her process.
- The student identifies the different organisational aspects that need to be considered and adapted when implementing a project.

School-based Conditions and Teacher Education for CLIL Implementation

- The student explores different organisational proposals that favour social inclusion.
- The student critically analyses the preconceived ideas about school organization and the proposals that come from the Educational Department and official places based on reliable sources.
- The student's academic style, as well as the genre and the terminology used are adequate for the purpose of the written document.

Due dates:

Due Date	Teacher's Feedback
Initial Personal Statement (26/09)	10/10/2017
Reflection + Learning Evidences (17/10)	31/10/2017
Reflection + Learning Evidences (21/11)	05/12/2017
Final Version (09/01)	18/01/2018

FIRST REFLECTION AND EVIDENCES

The aim of this assignment is that you reflect on our current Educational System. This reflection should include an analysis of the Educational System, considering all the aspects we have talked about in class (laws, structure, educational services, decision levels...). This analysis should highlight both the strengths and aspects that could be improved in our Educational System. The identification of the strengths and weaknesses must be based on evidences (theories, comparison with other educational systems ...). The reflection should also include the effects the current educational system has on the teaching and learning process. Finally, possible solutions or alternatives should be proposed. All these suggestions must be supported by evidences.

The maximum extension of this reflection is 2 pages if it is in a written format. The reflection must be uploaded both on the moodle and on google sites by Thursday, 19th of October. The name of the document uploaded must follow this structure: Surname_Name_Reflection1

The whole portfolio will also be revised in order to assess the updates and the progress. The assessment criteria of the final version will be used to assess the ongoing work.

Assessment Criteria for the reflection:

Appendixes

- The Educational System is analysed critically in order to identify its strengths and weaknesses.
- It is reflected on the effects the current Educational System has on the teaching and learning process.
- Theory and evidences are used to analyse our Educational System and propose some suggestions for improvement.

The written document uses an academic style and the genre and the terminology used are adequate for the purpose of the written document.

SPACE ACTIVITY AND ONGOING WORK

The aim of this activity is **to become aware that the space is a resource that has to be used and adapted according to the educational purpose**. For this reason, you will be asked to draw your ideal classroom individually. Subsequently, you will have to share your initial design with your group members and create the group design. This group design should be the result of the discussion of your individual ideas. In class, the group proposal will be assessed by the other groups. Finally, you will be able to make some changes according to your peers' feedback. The final version should include all the previous drafts and a brief reflection that should provide an answer to these three questions:

1. Why did you organise the space in that way?
2. What changes were made in the different versions? Why?
3. What advantages and shortcomings does this space organisation present for the teaching and learning process? Why?

This activity will be done in class. The **deadline** to upload it both on the moodle and the portfolio is the **24th of November** at midnight. The submission must include:

- a) The individual version.
- b) The group version.
- c) The final version (it could be that the group and the final version are almost the same).
- d) Reflection (1 page).

Apart from the space activity, **the ongoing work of the portfolio will also be assessed** according to the assessment criteria for the portfolio's final version.

Assessment criteria:

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- The organisation of the space is coherent with the purpose it aims to serve.
- The decisions and changes made between the different versions are explained and justified.
- Theoretical evidences are used to make the decisions relative to the space use.
- The written document uses an academic style and the genre and the terminology used are adequate for the purpose of the written document.

INITIAL PERSONAL STATEMENT

The aim of the initial personal statement is to reflect on your starting point in terms of the competences to be developed in this subject, your already acquired knowledge; your beliefs about educational system and school organisation, as well as your potentialities and aspects to improve. From this, you will have to set your personal learning outcomes for this subject and what you are going to do in order to achieve these objectives. This assignment can be a written text, a presentation, a video... The maximum length is two pages.

This initial personal statement has to be uploaded both to the moodle and the portfolio. The due date is the 26th of September.

Assessment Criteria:

- Achievable learning outcomes are established considering the personal starting point.
- The own potentialities and areas of improvement in terms of competences and school organisation are identified.
- Different learning actions are planned so as to attain the established learning outcomes.
- The written document uses an appropriate language style for the type of assignment (type of genre, specific terminology, clarity, coherence...) and the academic context (formal language).

Appendix 24. Example of the Wiki created to work language

The screenshot shows a Moodle Wiki page titled "Language issues" on the website of Universitat de Barcelona. The page has a navigation menu with options: View, Edit, Comments, History, Map, Files, and Administration. A "Printer-friendly version" link is also present. The main content area contains the following text:

This wiki is for you to think about some of the most common language issues (vocabulary, grammar...) I am finding in your assignments.

Below the text are several blue hyperlinks: [Prepositions](#), [Common mistakes](#), [Verb Tense](#), [Connectors](#), [Sentences](#), and [Textual genres' characteristics](#).

The left sidebar shows a course structure for "1718SEIOE1" with categories like "Communication", "Practical information", "Block 1. Educational System", and "Block 2. Educational Contexts".

This screenshot shows a detailed page from the same Moodle Wiki, titled "WHAT IS/ARE THE PREPOSITION/S THAT GOES/GO WITH THESE WORDS? (Write a brief definition and an example of how you would use these words i context)".

The page provides the following definitions and examples:

- Think about:** the verb to "think" must be followed by the preposition "about" when it means "have something in mind = to think about something". E.g.: "I'm thinking about moving to a different city". The common mistake is confuse the preposition "about" with "to". E.g.: I'm thinking ~~to~~ about doing an intensive English course in Ireland.
- Reflect on:** the verb to "reflect" must be followed by the preposition "on" when it means "to think in a serious and careful way". E.g.: "The aim of this task is to reflect on the Spanish Educational System".
- Refer TO:** is a synonymous of "make reference to"
e.g.: Twain was referring to Shakespeare
- Consist of:** the verb to "consist" must be followed by the preposition "of" when it means "something is composed or made up of specific things". E.g.: Our project consists of new educational methodologies
- Consist in:** the verb to "consist" must be followed by the preposition "in" when it means "something is made of or formed from something". E.g. Our work consists in analyzing the school organization.
- Consist on:** is not correct
- Relate to:** the verb to "relate" must be followed by the preposition "to" when it means "connected with". The preposition "with" is a common mistake, but is not correct. E.g.: Competence based education relates with to meaningful learning

Appendixes

Es seguro | <https://campusvirtual2.ub.edu/mod/wiki/view.php?pageid=68342>

UNIVERSITAT DE BARCELONA

Pons Seguí Laura

1718SEIOE1

Participants

Badges

Competencies

Grades

Communication

Practical information

Block 1. Educational System

Block 2. Educational Contexts

HOW IS THE SENTENCE STRUCTURE AFTER THE VERBS SUGGEST AND RECOMMEND? (Write a brief explanation and an example)

Pattern: recommend/suggest + noun

Examples:

- He recommended **the restaurant** down the street
- The designer suggested **the colour blue** for the living room

*Note: If we also want to include *who* the suggestion is being made to, we can follow the noun object with **to + person**.

Examples:

- He recommended the restaurant down the street **to us**. (*correct*)
- He recommended **to us** the restaurant down the street. (*incorrect*)
- He suggested the restaurant down the street **to his neighbor**. (*correct*)
- He suggested **to his neighbour** the restaurant down the street. (*incorrect*)

Pattern: recommend/suggest + noun

Appendix 25: Self-Perceived Competence Level Questionnaire for course 1 (First Version)

QÜESTIONARI PERCEPCIÓ DEL NIVELL COMPETENCIAL

Aquest qüestionari forma part de la tesi doctoral titulada “Condicions institucionals i relatives a la formació del professorat”. Aquest té per objectiu identificar la teva percepció pel que fa al teu nivell de desenvolupament competencial.

La informació obtinguda a través d'aquest qüestionari no condicionarà els resultats obtinguts a l'assignatura de “Planificació, disseny i avaluació de l'aprenentatge i l'activitat docent”. La teva participació és voluntària i les dades seran tractades de forma confidencial. Respondre aquest qüestionari no et portarà més de **XXX** minuts.

Moltes gràcies per la teva col·laboració!

A. DADES D'IDENTIFICACIÓ

GRUP:

NIUB:

B. QÜESTIONARI

Valora cadascuna de les següents afirmacions de l'1 al 10 en funció del teu grau d'acord amb elles, sent 1-gens d'acord i 10-molt d'acord.

	1	2	3	4	5	6	7	8	9	10
1. Identifico i reflexiono sobre les meves creences en relació al procés d'ensenyament-aprenentatge.										
2. Reconexo i identifico les meves creences sobre l'ensenyament-aprenentatge integrat de llengua i contingut.										
3. Exploro i reflexiono les meves característiques docents, les meves potencialitats i els aspectes que he de treballar.										
4. Identifico quins són els gèneres textuais i l'ús de la llengua propis d'una àrea de coneixement.										
5. Identifico els aspectes lingüístics que es volen treballar a una determinada unitat didàctica										
6. Planifico el treball de la llengua d'un tema determinat de forma que afavoreixi l'aprenentatge de l'alumnat.										
7. Identifico diversos enfocaments per al treball i l'adquisició de la llengua.										
8. Dissenyo propostes d'aprenentatge que contemplin els principis bàsics de l'adquisició de la competència comunicativa.										
9. Planifico propostes d'ensenyament-aprenentatge que integren contingut i llengua.										

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10. Identifico i alineo les competències, els objectius d'aprenentatge, el contingut i els criteris d'avaluació.																				
11. Proposo activitats d'aprenentatge que afavoreixin l'assoliment de les competències, els objectius i el contingut per part de l'alumnat.																				
12. Seqüencio les activitats d'aprenentatge de manera que el suport que es dona a l'alumnat es pugui anar retirant a mesura que avança el tema.																				
13. Elegeixo l'enfocament metodològic en funció de les peculiaritats de l'àrea de coneixement i els objectius d'aprenentatge i competències que l'alumnat ha d'assolir.																				
14. Estableixo un sistema d'avaluació que permet identificar el nivell d'aprenentatge de l'alumnat i informar-lo/la.																				
15. Determino quines estratègies i instruments permetran avaluar el grau d'assoliment dels objectius d'aprenentatge.																				
16. Proposo sistemes d'avaluació que permeten identificar el grau d'assoliment del contingut sense que es vegi limitat per la competència lingüística.																				
17. Estableixo un mecanisme per avaluar la pràctica docent.																				
18. Estableixo els criteris per buscar i seleccionar materials i recursos d'ensenyament-aprenentatge, així com espais d'on obtenir aquests materials i recursos.																				
19. Valoro els materials seleccionats en funció del grau amb què possibiliten treballar el contingut i la llengua, i assolir els objectius d'aprenentatge establerts.																				
20. Seqüencio les activitats d'aprenentatge per treballar els aspectes de forma esglaonada.																				
21. Preveig les àrees on serà necessari buscar material complementari per reforçar i/o ampliar un determinat aspecte.																				
22. Identifico diverses estratègies per gestionar la comunicació, l'aprenentatge col·laboratiu, la gestió del grup, donar instruccions i analitzar les dinàmiques de l'aula.																				
23. Selecciono diverses estratègies que permeten integrar els diversos ritmes i nivells d'aprenentatge de l'aula pel que fa a la llengua, el contingut i les competències.																				
24. Identifico estratègies per fomentar la participació del grup.																				
25. Utilitzo diverses estratègies per gestionar el temps i l'espai d'ensenyament-aprenentatge.																				

Moltes gràcies per la teva col·laboració!

Appendix 26: Self-Perceived Competence Level Questionnaire for course 2 (First Version)

QÜESTIONARI PERCEPCIÓ DEL NIVELL COMPETENCIAL

Aquest qüestionari forma part de la tesi doctoral titulada “Condicions institucionals i relatives a la formació del professorat”. Aquest té per objectiu identificar la teva percepció pel que fa al teu nivell de desenvolupament competencial.

La informació obtinguda a través d’aquest qüestionari no condicionarà la nota obtinguda a l’assignatura de “Sistema Educatiu i Organització Escolar”. La teva participació és voluntària i les dades seran tractades de forma confidencial. Malgrat això, es demana el teu NIUB per poder comparar la situació de cada participant en dos moments diferents en el temps (a l’inici i al final de l’assignatura). Respondre aquest qüestionari no et portarà més de 10 minuts.

A. DADES D’IDENTIFICACIÓ

GRUP:

NIUB:

B. QÜESTIONARI

Valora cadascuna de les següents afirmacions de l’1 al 10 en funció del teu grau d’acord amb elles, sent 1-gens d’acord i 10-molt d’acord.

	1	2	3	4	5	6	7	8	9	10
1. Sóc capaç de comprendre les idees principals d’una informació (oral i/o escrita) sobre temes relatius a l’educació en llengua estrangera.										
2. Sóc capaç de produir textos (orals i/o escrits) en llengua estrangera sobre temes relatius a l’educació										
3. Sóc capaç de descriure, explicar, justificar i argumentar en llengua estrangera.										
4. Sóc capaç d’identificar i reflexionar sobre les pròpies concepcions relatives al sistema educatiu, l’organització escolar i l’impacte de l’organització en el procés d’ensenyament-aprenentatge.										
5. Sóc capaç d’explorar i reflexionar sobre les pròpies característiques docents, les àrees de domini i els aspectes a treballar.										
6. Sóc capaç d’identificar i reflexionar sobre les pròpies creences sobre el procés d’ensenyament-aprenentatge.										
7. Sóc capaç d’identificar i analitzar diverses estratègies per gestionar la comunicació, l’aprenentatge col·laboratiu, la gestió del grup,										

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donar instruccions i analitzar les dinàmiques de l'aula.																			
8. Sóc capaç d'analitzar i valorar diverses estratègies organitzatives que permetin incloure els diversos nivells i ritmes d'aprenentatge, així com les diferències socials de l'alumnat.																			
9. Sóc capaç d'identificar estratègies organitzatives que fomentin la participació del grup.																			
10. Sóc capaç de buscar i identificar recursos fiables d'on obtenir informació sobre l'organització escolar i el sistema educatiu.																			
11. Sóc capaç de reflexionar críticament sobre els resultats de la recerca pel que fa a la innovació docent.																			
12. Sóc capaç d'analitzar críticament les propostes sobre educació procedents de la recerca, la innovació i l'administració educativa.																			
13. Sóc capaç de valorar quins aspectes contextuals i educatius s'han de considerar a l'hora d'implementar un projecte d'innovació a un centre.																			
14. Sóc capaç d'identificar quins agents interns i externs poden donar suport al disseny i desenvolupament del projecte CLIL i quin rol poden adoptar.																			
15. Sóc capaç d'analitzar els mecanismes utilitzats als projectes educatius per involucrar els diversos agents educatius.																			
16. Sóc capaç de reconèixer i valorar diferents mecanismes per afavorir la coordinació dels diferents agents i institucions involucrades en la implementació del projecte CLIL.																			
17. Sóc capaç de valorar quines implicacions organitzatives i curriculars tindrà la implementació d'un projecte d'innovació en un centre educatiu.																			
18. Sóc capaç d'explorar els aspectes a considerar per adaptar un projecte d'innovació a les característiques educatives i contextuals d'un centre educatiu.																			
19. Sóc capaç de buscar i proposar diversos mecanismes per avaluar el funcionament d'un projecte CLIL a un centre.																			
20. Sóc capaç de fer aportacions i valoracions que estiguin fonamentades teòricament.																			

Moltes gràcies per la vostra col·laboració!

Appendix 27: Validation template for Self-Perceived competence level questionnaire

PAUTA VALIDACIÓ QÜESTIONARI 'PERCEPCIÓ DEL NIVELL COMPETENCIAL'

Aquest qüestionari forma part de la tesi doctoral titulada “Condicions institucionals i relatives a la formació del professorat”. Aquest té per objectiu identificar la percepció dels estudiants pel que fa al seu nivell de desenvolupament competencial. Per aquest motiu, aquest qüestionari s’administrarà a mode de pre- i post-test.

L’objectiu d’aquesta pauta de validació és, d’una banda, assenyalar si els ítems del qüestionari són *rellevants* (marcar amb una creu si és molt, força, poc, gens rellevant), és a dir, si els consideres importants respecte a l’objectiu del qüestionari. D’altra banda, assenyalar si els ítems són intel·ligibles (marcar amb una creu si és molt, força, poc, gens intel·ligible), és a dir, si creus que són fàcils d’entendre per part de la població a qui va destinat el qüestionari. Així mateix, cada ítem té una casella d’observacions on pots anotar allò que consideris oportú. També pots comentar aspectes que no apareixen al qüestionari però que opinis que, per la seva rellevància, haurien d’estar presents. Finalment, necessitaria que responguessis el qüestionari i indiquessis aproximadament quant de temps has necessitat.

Si tens algun dubte et pots posar en contacte amb mi a lponsseg8@ub.edu

Moltes gràcies per la teva col·laboració!

INSTRUCCIONS PER A L’ALUMNAT

Aquest qüestionari forma part de la tesi doctoral titulada “Condicions institucionals i relatives a la formació del professorat”. Aquest té per objectiu identificar la teva percepció pel que fa al teu nivell de desenvolupament competencial.

La informació obtinguda a través d’aquest qüestionari no condicionarà els resultats obtinguts a l’assignatura de “Planificació, disseny i avaluació de l’aprenentatge i l’activitat docent”. La teva participació és voluntària i les dades seran tractades de forma confidencial. Malgrat això, es demana el teu NIUB per poder comparar la situació de cada participant en dos moments diferents en el temps . Respondre aquest qüestionari no et portarà més de **XXX** minuts.

Moltes gràcies per la teva col·laboració!

Consideres que les instruccions per a l’alumnat s’entenen? Creus que hi falta o hi manca informació?

QÜESTIONARI

Pregunta/ítem	Rellevància de la pregunta/ítem					Intel·ligibilitat de la pregunta/ítem				
	Molt	Força	Poc	Gens	Observacions	Molt	Força	Poc	Gens	Observacions
1.Sóc capaç d'identificar i reflexionar sobre les meves creences en relació al procés d'ensenyament-aprenentatge.										
2.Sóc capaç de reconèixer i identificar les meves creences sobre l'ensenyament-aprenentatge integrat de llengua i contingut.										
3. Sóc capaç d'explorar i reflexionar sobre les meves característiques docents, les meves potencialitats i els aspectes que he de treballar.										
4.Sóc capaç d'identificar quins són els gèneres textuais i l'ús de la llengua propis d'una àrea de coneixement.										

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Pregunta/ítem	Rellevància de la pregunta/ítem					Intel·ligibilitat de la pregunta/ítem				
	Molt	Força	Poc	Gens	Observacions	Molt	Força	Poc	Gens	Observacions
5. Sóc capaç d'identificar els aspectes lingüístics que es volen treballar a una determinada unitat didàctica.										
6. Sóc capaç de planificar el treball de la llengua d'un tema determinat de forma que afavoreixi l'aprenentatge de l'alumnat.										
7. Sóc capaç d'identificar diversos enfocaments per al treball i l'adquisició de la llengua.										
8. Sóc capaç de dissenyar propostes d'aprenentatge que contemplin els principis bàsics de l'adquisició de la competència comunicativa.										
9. Sóc capaç de planificar propostes d'ensenyament-aprenentatge que integrin contingut i llengua.										
10. Sóc capaç d'identificar i alinear les competències, els										

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objectius d'aprenentatge, el contingut i els criteris d'avaluació.										
11. Sóc capaç de proposar activitats d'aprenentatge que afavoreixin l'assoliment de les competències, els objectius i el contingut per part de l'alumnat.										
Pregunta/ítem	Rellevància de la pregunta/ítem					Intel·ligibilitat de la pregunta/ítem				
	Molt	Força	Poc	Gens	Observacions	Molt	Força	Poc	Gens	Observacions
12. Sóc capaç de seqüenciar les activitats d'aprenentatge de manera que el suport que es dóna a l'alumnat es pugui anar retirant a mesura que avança el tema.										
13. Sóc capaç d' elegir l'enfocament metodològic en funció de les peculiaritats de l'àrea de coneixement i els objectius d'aprenentatge i competències que l'alumnat ha d'assolir.										
14. Sóc capaç d'establir un sistema d'avaluació que permet identificar el nivell d'aprenentatge de l'alumnat i informar-lo/la.										

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15. Sóc capaç de determinar quines estratègies i instruments permetran avaluar el grau d'assoliment dels objectius d'aprenentatge.										
16. Sóc capaç de proposar sistemes d'avaluació que permetin identificar el grau d'assoliment del contingut sense que es vegi limitat per la competència lingüística.										
Pregunta/ítem	Rellevància de la pregunta/ítem					Intel·ligibilitat de la pregunta/ítem				
	Molt	Força	Poc	Gens	Observacions	Molt	Força	Poc	Gens	Observacions
17. Sóc capaç d'establir un mecanisme per avaluar la pràctica docent.										
18. Sóc capaç d'establir els criteris per buscar i seleccionar materials i recursos d'ensenyament-aprenentatge, així com espais d'on obtenir aquests materials i recursos.										
19. Sóc capaç de valorar els materials seleccionats en funció del grau amb què possibiliten treballar el contingut i la llengua, i assolir els objectiu d'aprenentatge i competències										

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establertes.										
20.Sóc capaç de seqüenciar les activitats d'aprenentatge per treballar els aspectes de forma esglaonada.										
21.Sóc capaç de preveure les àrees on serà necessari buscar material complementari per reforçar i/o ampliar un determinat aspecte.										
22.Sóc capaç d'identificar diverses estratègies per gestionar la comunicació, l'aprenentatge col·laboratiu, la gestió del grup, donar instruccions i analitzar les dinàmiques de l'aula.										
23. Sóc capaç de seleccionar diverses estratègies que permeten integrar els diversos ritmes i nivells d'aprenentatge de l'aula pel que fa a la llengua, el contingut i les competències.										
Pregunta/ítem	Rellevància de la pregunta/ítem					Intel·ligibilitat de la pregunta/ítem				
	Molt	Força	Poc	Gens	Observacions	Molt	Força	Poc	Gens	Observacions
24. Sóc capaç d'identificar estratègies per fomentar la participació del grup.										

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25. Sóc capaç d'utilitzar diverses estratègies per gestionar el temps i l'espai d'ensenyament-aprenentatge.										
26.Sóc capaç d'identificar les idees principals d'una informació (oral i escrita) sobre temes relatius a l'educació en llengua estrangera.										
27.Sóc capaç de produir textos (orals i escrits) en llengua estrangera sobre temes relatius a l'educació.										
28. Sóc capaç de descriure, explicar i argumentar temes educatius en llengua estrangera.										
29.Sóc capaç d'identificar les peculiaritats d'una determinada àrea de coneixement i considerar-les en la planificació d'una unitat didàctica.										
30.Sóc capaç de dissenyar una unitat didàctica que integri llengua i contingut que tingui en compte els principals fonaments teòrics (teoria de l'aprenentatge, adquisició de										

Appendix 28: Self-perceived competence level questionnaire for course 1 (Final Version)

QÜESTIONARI PERCEPCIÓ DEL NIVELL COMPETENCIAL⁴⁴

Aquest qüestionari forma part de la tesi doctoral titulada “Condicions institucionals i relatives a la formació del professorat”. Aquest té per objectiu identificar la teva percepció pel que fa al teu nivell de desenvolupament competencial.

La informació obtinguda a través d’aquest qüestionari no condicionarà la nota obtinguda a l’assignatura de “Planificació, disseny i avaluació de l’aprenentatge i l’activitat docent”. La teva participació és voluntària i les dades seran tractades de forma confidencial. Malgrat això, es demana el teu NIUB per poder comparar la situació de cada participant en dos moments diferents en el temps (a l’inici i al final de l’assignatura). Respondre aquest qüestionari no et portarà més de 10 minuts.

A. DADES D’IDENTIFICACIÓ

GRUP:

NIUB:

B. QÜESTIONARI

Valora cadascuna de les següents afirmacions de l’1 al 10 en funció del teu grau d’acord amb elles, sent 1-gens d’acord i 10-molt d’acord.

	1	2	3	4	5	6	7	8	9	10
1.Sóc capaç d’identificar i reflexionar sobre les meves creences en relació al procés d’ensenyament-aprenentatge.										
2.Sóc capaç de reconèixer i identificar les meves creences sobre l’ensenyament-aprenentatge integrat de llengua i contingut.										
3. Sóc capaç d’explorar i reflexionar sobre les meves característiques docents, les meves potencialitats i els aspectes que he de treballar.										
4.Sóc capaç d’identificar l’ús característic de la llengua a una determinada àrea de coneixement (gèneres textuais, expressions, argot, terminologia...).										
5. Sóc capaç d’identificar els aspectes lingüístics que es volen treballar a una determinada unitat didàctica										
6.Sóc capaç de planificar com treballar la llengua a										

⁴⁴ <https://goo.gl/forms/X5yBhlt6eFmefbgb2>

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un tema determinat de forma que afavoreixi l'aprenentatge de l'alumnat.																				
7. Sóc capaç d'identificar diversos enfocaments metodològics per al treball i l'adquisició de la llengua.																				
8. Sóc capaç de dissenyar propostes d'aprenentatge que contemplin els principis bàsics de l'adquisició de la competència comunicativa.																				
9. Sóc capaç de planificar propostes d'ensenyament-aprenentatge que integrin contingut i llengua.																				
10. Sóc capaç d'identificar i alinear les competències, els objectius d'aprenentatge, el contingut i els criteris d'avaluació.																				
11. Sóc capaç de proposar activitats d'aprenentatge que afavoreixin l'assoliment de les competències (alineades amb els objectius i el continguts).																				
12. Sóc capaç de seqüenciar les activitats d'aprenentatge de manera que l'alumnat esdevingui més autònom al llarg de la unitat.																				
13. Sóc capaç d' elegir l'enfocament metodològic en funció de les peculiaritats de l'àrea de coneixement i els objectius d'aprenentatge i competències que l'alumnat ha d'assolir.																				
14. Sóc capaç d'establir un sistema d'avaluació que permet identificar i informar del nivell d'aprenentatge de l'alumnat.																				
15. Sóc capaç de determinar quines estratègies i instruments permetran avaluar el grau d'assoliment dels objectius d'aprenentatge.																				
16. Sóc capaç de proposar sistemes d'avaluació que permetin identificar el grau d'assoliment del contingut sense que aquest es vegi limitat per la competència lingüística.																				
17. Sóc capaç d'establir un mecanisme per avaluar la pràctica docent.																				
18. Sóc capaç d'establir els criteris per buscar i seleccionar materials i recursos d'ensenyament-aprenentatge.																				
19. Sóc capaç de valorar els materials seleccionats en funció del grau amb què possibiliten treballar el contingut i la llengua, i assolir els objectiu d'aprenentatge i competències establertes.																				
20. Sóc capaç de seqüenciar les activitats d'aprenentatge per treballar els continguts de forma																				

esglaonada.																				
21.Sóc capaç de preveure les àrees on serà necessari buscar material complementari per reforçar i/o ampliar un determinat contingut .																				
22.Sóc capaç d'identificar diverses estratègies per gestionar la dinàmica social de l'aula (comunicació, l'aprenentatge col·laboratiu, la gestió del grup, donar instruccions...).																				
23. Sóc capaç de seleccionar diverses estratègies per gestionar la diversitat de l'aula.																				
24. Sóc capaç d'identificar estratègies per fomentar la participació del grup.																				
25. Sóc capaç d'utilitzar diverses estratègies per gestionar el temps i l'espai d'ensenyament-aprenentatge.																				
26.Sóc capaç d'identificar les idees principals d'una informació (oral i escrita) sobre temes relatius a l'educació en llengua estrangera.																				
27.Sóc capaç de produir textos (orals i escrits) en llengua estrangera sobre temes relatius a l'educació.																				
28. Sóc capaç de donar instruccions i gestionar l'aula en llengua estrangera.																				
29.Sóc capaç els trets identificadors d'una determinada àrea de coneixement i considerar-los en la planificació d'una unitat didàctica.																				
30.Sóc capaç de dissenyar una unitat didàctica que integri llengua i contingut que tingui en compte els principals fonaments teòrics (teoria de l'aprenentatge, adquisició de segones llengües...).																				

Moltes gràcies per la teva col·laboració!

Appendix 29: Self-perceived competence level questionnaire for course 2 (Final Version).

QÜESTIONARI PERCEPCIÓ DEL NIVELL COMPETENCIAL⁴⁵

Aquest qüestionari forma part de la tesi doctoral titulada “Condicions institucionals i relatives a la formació del professorat”. Aquest té per objectiu identificar la teva percepció pel que fa al teu nivell de desenvolupament competencial.

La informació obtinguda a través d'aquest qüestionari no condicionarà la nota obtinguda a l'assignatura de “Sistema Educatiu i Organització Escolar”. La teva participació és voluntària i les dades seran tractades de forma confidencial. Malgrat això, es demana el teu NIUB per poder comparar la situació de cada participant en dos moments diferents en el temps (a l'inici i al final de l'assignatura). Respondre aquest qüestionari no et portarà més de 10 minuts.

A. DADES D'IDENTIFICACIÓ

GRUP:

NIUB:

B. QÜESTIONARI

Valora cadascuna de les següents afirmacions de l'1 al 10 en funció del teu grau d'acord amb elles, sent 1-gens d'acord i 10-molt d'acord.

	1	2	3	4	5	6	7	8	9	10
1. Sóc capaç de comprendre les idees principals d'una informació (oral i/o escrita) sobre temes relatius a l'educació en llengua estrangera.										
2. Sóc capaç de produir textos (orals i/o escrits) en llengua estrangera sobre temes relatius a l'educació										
3. Sóc capaç de descriure, explicar, justificar i argumentar en llengua estrangera.										
4. Sóc capaç d'identificar i reflexionar sobre les pròpies concepcions relatives al sistema educatiu, l'organització escolar i l'impacte de l'organització en el procés d'ensenyament-aprenentatge.										
5. Sóc capaç d'explorar i reflexionar sobre les pròpies característiques docents, les àrees de domini i els										

⁴⁵ <https://goo.gl/forms/Mg7CEIydLrUTp99v1>

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aspectes a treballar.																				
6. Sóc capaç d'identificar i reflexionar sobre les pròpies creences sobre el sistema educatiu i l'organització escolar.																				
7. Sóc capaç d'identificar i analitzar diverses estratègies per gestionar la comunicació, l'aprenentatge col·laboratiu, la gestió del grup, donar instruccions i analitzar les dinàmiques de l'aula.																				
8. Sóc capaç d'analitzar i valorar diverses estratègies organitzatives que permetin incloure els diversos nivells i ritmes d'aprenentatge, així com les diferències socials de l'alumnat.																				
9. Sóc capaç d'identificar estratègies organitzatives que fomentin la participació de l'alumnat.																				
10. Sóc capaç de buscar i identificar recursos fiables d'on obtenir informació sobre l'organització escolar i el sistema educatiu.																				
11. Sóc capaç de reflexionar críticament sobre els resultats de la recerca pel que fa a la innovació docent.																				
12. Sóc capaç d'analitzar críticament les propostes sobre educació procedents de la recerca, la innovació i l'administració educativa.																				
13. Sóc capaç de valorar quins aspectes contextuais i educatius s'han de considerar a l'hora d'implementar un projecte d'innovació a un centre.																				
14. Sóc capaç d'identificar quins agents interns i externs poden donar suport al disseny i desenvolupament del projecte CLIL i quin rol poden adoptar.																				
15. Sóc capaç d'analitzar els mecanismes utilitzats als projectes educatius per involucrar els diversos agents educatius.																				
16. Sóc capaç de reconèixer i valorar diferents mecanismes per afavorir la coordinació dels diferents agents i institucions involucrades en la																				

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implementació del projecte CLIL.											
17. Sóc capaç de valorar quines implicacions organitzatives i curriculars tindrà la implementació d'un projecte d'innovació en un centre educatiu.											
18. Sóc capaç d'explorar els aspectes a considerar per adaptar un projecte d'innovació a les característiques educatives i contextuals d'un centre educatiu.											
19. Sóc capaç de buscar i proposar diversos mecanismes per avaluar el funcionament d'un projecte CLIL a un centre.											
20. Sóc capaç de fonamentar teòricament les meves opinions, decisions i reflexions sobre el sistema educatiu i l'organització escolar.											

Moltes gràcies per la vostra col·laboració!

Appendix 30. Results of the Analysed Articles for the Systematic Review

CATEGORIES		Fernández - Fernández et al. (2005)	Pena- Díaz and Porto- Requej o (2008)	Di Martin o and Di Sabato (2012)	Truscot t de Mejía et al. (2012)	Cabezuelo -Gutiérrez and Fernández - Fernández (2014)	Diem- Trang and Thanh -Nga (2015)	Pérez- Cañad o (2016)
CLIL Fundamentals	CLIL theory	X		X			X	X
	L2 Acquisition	X	X					
Methodology and Assessment	CLIL methodology	X	X	X	X	X	X	X
	CLIL assessment			X	X			
Research and Evaluation							X	X
Learning resources & environmen ts	Material preparation	X	X		X		X	X
	ICT resources						X	X
Classroom management					X	X		
CLIL management	School organization	X	X	X				
	Collaboratio n and coordination		X		X			
	Interschool organization		X	X				
Language and Content Awareness	FL skills	X	X	X		X		
	Foreign language scaffolding				X	X	X	X

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