

LA PRÀCTICA EDUCATIVA A TRAVÉS DE L'APROXIMACIÓ DELS FONTS DE CONEIXEMENT I D'IDENTITAT

Mariona Llopart Rossell

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TESI DOCTORAL

LA PRÀCTICA EDUCATIVA A TRAVÉS DE L'APROXIMACIÓ DELS FONS DE CONEIXEMENT I D'IDENTITAT

Mariona Llopart Rossell

2016

PROGRAMA de DOCTORAT INTERUNIVERSITARI en
PSICOLOGIA de L'EDUCACIÓ (DIPE)

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Memoria presentada per optar al títol de doctora per a la Universitat de Girona



Universitat de Girona

El Dr. MOISÈS ESTEBAN-GUITART de la Universitat de Girona,

DECLARA:

Que la tesi titulada *La pràctica educativa a través de l'aproximació dels fons de coneixement i d'identitat*, que presenta MARIONA LLOPART ROSSELL per a l'obtenció del títol de doctora, ha estat realitzada sota la meva direcció.

I, perquè així consti i tingui els efectes oportuns, signo aquest document

Dr. Moisès Esteban-Guitart

Girona, 20 de Desembre de 2016

Al meu company de viatge, Pepe.

Als meus pares, Antoni i Maria Mercè.

Al meu germà, Toni.

No sempre és cert
que allí on acaba el mar
comença el vent,
que allí on acaba el vent
comença el bosc,
que allí on acaba el bosc
hi ha un pou profund
on cap veu no hi ressona.
Vinguts d'enlloc,
hi ha mots que solquen l'aire
i esdevenen perennes,
xifres i enigmes
que no dissol cap pluja
i l'espasí de foc
dels dies alts,
l'angoixa i la tendresa.
Dispersa i vehement,
la vida és l'abegot
que brunz un sol instant
i es perdrà dins la tarda;
no el riu, solemne i dòcil,
que lliurarà les aigües a una mar
que el faci perdurable.

"A trenc de fosca"

Les clares paraules – Obra Poètica IV

Miquel Martí Pol (1980)

AGRAÏMENTS

Crec que encara no en sóc conscient. Ha arribat el gran esperat moment. Un camí construït a poc a poc, amb algunes caigudes i amb la necessitat d'agafar un bastó en certs moments.

No ha estat un camí en solitari. Per això, vull recordar totes aquelles persones que m'han acompanyat durant aquests anys.

Gràcies... al meu director, en Moi, qui em rescatà quan vaig caure i no podia aixecar-me. Una peça clau en la construcció de la tesi, el meu gran bastó. Sense tu, no hagués estat possible.

Gràcies... al meu gran mestre, en Natxo. Ets el "culpable" que l'educació s'hagi convertit en la meua vocació.

Gràcies... a tot el professorat de l'escola Camins de Banyoles. Un equip educatiu amb empenya i incansable. Per a vosaltres, els reptes són oportunitats per créixer.

Gràcies... al grup de recerca Cultura i Educació de la Universitat de Girona. Per deixar-me col·laborar en alguns dels projectes de recerca i compartint experiències.

Gràcies... a una gran amiga, la Mireia Augé. Ens vam conèixer el primer dia del MIPE, ja fa uns quants anys, i avui encara seguim amb les nostres "cabòries educatives". Res podrà destruir el que ens uneix. T'estimo.

Gràcies... a totes les persones que m'heu acompanyat durant aquest anys. A les meves nenes (Laura, Sílvia i Yoli) que heu patit les alegries i ploraneres. A la colla, en especial a en Raul, qui no m'ha deixat d'aconsellar durant tot aquest temps.

Gràcies... als meus pares i al meu germà. Durant aquest camí han passat moltes coses, masses, però seguim aquí i seguirem! Us estimo.

Gràcies... el meu company de viatge, en Pepe. Has viscut el camí des del principi i saps, millor que ningú, com hem patit. Has estat i ets l'altre bastó d'aquesta tesi. La primera persona del plural ha passat per davant de la primera del singular. Us estimo.

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1. RESUM – RESUMEN - ABSTRACT

RESUM

La present tesi doctoral té com a objectiu general conceptualitzar la **pràctica educativa** des de la perspectiva teòrica i metodològica dels **fons de coneixement i d'identitat**. Aquesta aproximació vol combatre la perspectiva del dèficit en educació segons la qual les diferències de rendiment en l'alumnat autòcton i d'origen estranger s'explica degut a les mancances intel·lectuals, econòmiques i/o socials associades a les famílies d'origen estranger. Contràriament, es parteix de la base que totes les famílies, més enllà del seu origen, de la seva llengua, de la seva situació econòmica, social i cultural, disposa d'habilitats i sabers produïts a partir de la participació en diferents pràctiques socials, anomenats fons de coneixement (González, Moll i Amanti, 2005). En aquesta línia, els mestres són formats amb estratègies qualitatives etnogràfiques per a poder visitar les llars dels seus alumnes, amb la finalitat d'identificar els fons de coneixement de les famílies (Moll, 1997; González, Moll i Amanti, 2005). Una vegada identificats, s'incorporen a la pràctica educativa a través del disseny d'activitats didàctiques que permeten contextualitzar la pràctica escolar, incorporant els sabers i les habilitats identificats durant les visites (McIntyre, Rosebery i González, 2001).

La tesis s'articula al voltant de tres articles vinculats a aquesta temàtica i que donen resposta a l'objectiu general plantejat. Destaquem tres aportacions dels mateixos: 1) Un anàlisi de l'estat actual de l'aproximació on queda palesa la relació de la noció de fons de coneixement amb altres perspectives i marcs teòrics (per exemple la teoria del capital cultural), la seva vinculació amb polítiques educatives encaminades a la justícia social, o la il·lustració de la noció de contextualització educativa (a propòsit de l'article "Funds of Knowledge in 21st Century Societies: Inclusive educational practices for under-represented students. A literature review" i l'article "Strategies and resources for contextualizing the curriculum based on the funds of knowledge approach. A literature review"); 2) La posada en pràctica de la perspectiva tenint en compte tots els elements implicats: la confecció dels grups d'estudi, les visites a les famílies, el disseny i la implementació d'activitats educatives (a propòsit de l'article "The "study group" as a context for learning. Teacher education from the funds of knowledge approach"); també en relació a aquest darrer article, 3) La conceptualització dels grups d'estudi

com a comunitat de pràctica a partir de la qual es dissenyen programes de formació i desenvolupament de l'exercici docent.

Es conclou la pertinència de la perspectiva dels fons de coneixement i d'identitat en la necessitat de desenvolupar una concepció ampla de l'aprenentatge entès com el resultat de la participació en pràctiques socioculturals, més enllà d'allò que succeeix a l'escola. En aquest sentit, recuperant la noció de *mesosistema* de Bronfenbrenner, es fa necessari articular les experiències i contextos de socialització (família, escola, comunitat) on els aprenents s'apropien dels artefactes culturals que els permeten inserir-se en comunitats específiques.

Paraules clau: Fons de coneixement, fons d'identitat, contextualització educativa, grups d'estudi, comunitat de pràctica, formació docent, relacions família-escola, marc de les continuïtats-discontinuitats família-escola.

RESUMEN

La presente tesis doctoral tiene como objetivo general conceptualizar la **práctica educativa** desde la perspectiva teórica y metodológica de los **fondos de conocimiento** e **identidad**. Esta aproximación pretende superar la perspectiva del déficit, según la cual las diferencias en el rendimiento entre el alumnado autóctono y el alumnado de origen extranjero se explica a partir de las limitaciones intelectuales, económicas y/o sociales asociadas a las familias de origen extranjero. Por lo contrario, se parte de la base de que todas las familias, más allá de su origen, de su lengua, de su situación económica, social y cultural, dispone de habilidades y saberes producidos a partir de la participación en diferentes prácticas sociales, denominados fondos de conocimiento (González, Moll y Amanti, 2005). En esta línea, las maestras y maestros son formados a partir de estrategias cualitativas etnográficas para poder visitar los hogares de sus alumnos, con la finalidad de identificar sus fondos de conocimiento (Moll, 1997; González, Moll y Amanti, 2005). Cuando los maestros han identificado los fondos de conocimiento, los incorporan a la práctica educativa a través del diseño de actividades didácticas que permiten contextualizar la práctica escolar incorporando los saberes y habilidades identificadas durante las visitas.

La tesis se articula alrededor de tres artículos vinculados a esta temática que dan respuesta al objetivo general planteado. Destacamos tres aportaciones: 1) Un análisis del estado actual de la aproximación en el que se puede apreciar la relación de la noción de los fondos de conocimiento con otras perspectivas y marcos teóricos (por ejemplo la teoría del capital cultural), su vinculación con políticas educativas, o la explicación de la noción de contextualización educativa (a propósito de los artículos: "Funds of Knowledge in 21st Century Societies: Inclusive educational practices for under-represented students. A literature review" y "Strategies and resources for contextualizing the curriculum based on the funds of knowledge approach. A literature review"); 2) La puesta en práctica de la perspectiva teniendo en cuenta todos los elementos implicados: la confección de los grupos de estudio, las visitas a las familias, el diseño y la implementación de actividades educativas (a propósito del artículo "The "study group" as a context for learning. Teacher education from the funds of

knowledge approach"); también en relación a este tercer artículo, 3) la conceptualización de los grupos de estudio como comunidades de práctica a partir de la cual se diseñan programas de formación y desarrollo del ejercicio docente.

Podemos concluir la pertinencia de la perspectiva de los fondos de conocimiento e identidad en la necesidad de desarrollar una conceptualización amplia del aprendizaje, conocida como el resultado de la participación en prácticas socioculturales, más allá de lo que sucede en las aulas de las escuelas. En este sentido, recuperando la noción de mesosistema de Bronfenbrenner, es necesario articular las experiencias y contextos de socialización (familia, escuela, comunidad) en los que los aprendices se apropian de artefactos culturales que les permiten incorporarse en comunidades específicas.

Palabras clave: Fondos de conocimiento, fondos de identidad, contextualización educativa, grupos de estudio, comunidad de práctica, formación docente, relaciones familia-escuela, perspectiva de las continuidades-discontinuidades familia-escuela.

ABSTRACT

The main objective of this doctoral thesis is to conceptualise **educational practice** from the theoretical and methodological perspective of **funds of knowledge and identity**. This approach aims to combat the deficit perspective in education, according to which differences in the performance of native and foreign students are explained in relation to intellectual, economic and/or social lacks associated with families of foreign descent. Contrary to such a perspective, this thesis starts from the premise that beyond questions of origin, language and economic, social and cultural situations, all families have skills and knowledge acquired through their participation in different social practices, which are known as funds of knowledge (González, Moll, & Amanti, 2005). In this regard, teachers are trained in ethnographic qualitative strategies to be able to visit their students' homes, in order to identify families' funds of knowledge (Moll, 1997; González, Moll & Amanti, 2005). Once identified, they are then incorporated into educational practice through the design of learning activities that enable classroom practice to be contextualised, incorporating the knowledge and skills identified during the visits (McIntyre, Rosebery, & González, 2001).

The thesis is organised on the basis of three articles linked to this theme and which address the general objective proposed. Three noteworthy contributions of these articles are: 1) An analysis of the current state of the question, which highlights the link between the notion of funds of knowledge and other perspectives and theoretical frameworks (the theory of cultural capital, for example), as well as its link with educational policies related to social justice, or the illustration of the notion of educational contextualisation (apropos of article "Funds of Knowledge in 21st Century Societies: Inclusive educational practices for under-represented students. A literature review" and the article "Strategies and resources for contextualizing the curriculum based on the funds of knowledge approach. A literature review"); 2) The implementation of the approach, taking into account all elements involved in the process: forming the study groups, visiting the families, designing and implementing educational activities (apropos of article "The "study group" as a context for learning. Teacher education from the funds of knowledge approach"); and also in relation to this

latter article, 3) the conceptualisation of study groups as a community of practice on the basis of which programmes of teacher training and development can be designed.

The thesis concludes by highlighting the relevance of the funds of knowledge and identity approach in relation to the need to develop a wider conception of learning, understood as the result of participation in sociocultural practices which go beyond that which occurs at school. In this sense, and recovering Bronfenbrenner's notion of *mesosystem*, it is necessary to articulate the socialisation experiences and contexts (family, school, community) in which learners appropriate the cultural artefacts that allow them to become a part of a specific community.

Keywords: Funds of knowledge, funds of identity, contextualization, study group, community of practice, educational formation, family-school relationship, home-school continuity-discontinuity framework.

2. INTRODUCCIÓ

La finalitat principal de la tesis és abordar la *pràctica educativa* des de la perspectiva dels **fons de coneixement i d'identitat**. Per *pràctica educativa* entenem la conceptualització dels agents implicats en la pràctica educativa escolar, a saber: el rol i formació docent, el disseny de les activitats educatives i la participació d'altres agents educatius (famílies). S'aborden aquests elements des d'una perspectiva teòrica determinada sota el marc dels **fons de coneixement** (*funds of knowledge* en anglès).

En relació a la introducció, aquesta està dividida en cinc seccions. En primer lloc, s'introdueix la qüestió de les diferències en el rendiment escolar de l'alumnat estranger, en comparació amb l'alumnat autòcton, a partir del marc de les continuïtats-discontinuitats família-escola. En segon lloc, s'aborda la història i el context de l'aproximació dels **fons de coneixement**, per nosaltres un exemple d'estratègia coherent amb els principis del marc de les continuïtats-discontinuitats família-escola. En tercer lloc, descrivim els principals conceptes teòrics i metodològics-procedimentals implicats en dita aproximació. En quart lloc, es descriu quin és l'estat de la qüestió al voltant d'aquesta perspectiva educativa en l'actualitat (a propòsit de l'article 1 i l'article 2). Finalment, s'introdueix el "Projecte Camins" derivat del disseny i implementació de l'aproximació en un centre educatiu d'educació infantil i primària de Catalunya (a propòsit de l'article 3).

EL RENDIMENT ACADÈMIC a PARTIR del MARC de les CONTINUÏTATS i DISCONTINUÏTATS FAMÍLIA-ESCOLA

Són varies les proves estandarditzades que indiquen que hi ha una diferència entre el rendiment acadèmic de l'alumnat autòcton i l'alumnat immigrant (Ferrer, Castejón, Castel i Zancajo, 2011). Per exemple, l'últim informe PISA (Informe PISA 2012), mostra diferències importants en el rendiment de l'alumnat autòcton en comparació amb l'alumnat procedent de minories culturals immigrants (aquesta vegada la variable "estatus econòmic" estava controlada). Així, l'alumnat natiu espanyol obtenia una puntuació mitjana en matemàtiques de 492 punts i l'alumnat immigrant de 439 punts; la diferència en el rendiment acadèmic d'aquests alumnes ascendeix a 53 punts (Calero i Escardíbul, 2013). Tot i controlar la variable "estatus econòmic", la diferència de punts a Espanya en competència lectora és de 44 (quan en el 2009 va ser de 58). I, si ens fixem en Catalunya, observem que en el cas de matemàtiques la diferència entre l'alumnat autòcton i immigrant és de 71 punts; en competència lectora és de 67 i en ciències de 66 punts.

Taula 1. Diferències en les competències acadèmiques entre l'alumne autòcton i l'alumne immigrant

	Matemàtiques		Lectura		Ciències	
	Autòcton	Immigrant	Autòcton	Immigrant	Autòcton	Immigrant
OECD	500	468	503	473	508	466
Unió Europea	495	465	497	465	504	468
Espanya	492	439	495	447	504	456
Catalunya	504	433	511	444	502	436

Font: Realitzat a partir del "Informe PISA 2012" (Ministerio de Educación, Cultura y Deporte, MECD, 2013)

Existeixen nombroses investigacions que han intentat justificar els resultats de diferents proves internacionals. Alguns dels arguments al respecte són: el grau d'implicació de les famílies a les aules escolars i les expectatives respecte als seus fills (Garreta, 1994); les característiques del context educatiu, la formació del professorat per a fer front la diversitat cultural i lingüística, les seves creences sobre la diversitat i la seva relació amb l'èxit o el fracàs escolar (Siqués, Vila i Perera, 2009); la major o menor distància cultural dels diferents grups culturals respecte a la cultura majoritària

(Colectivo IOÈ, 1996) i les diferències en el domini de la pròpia llengua i la llengua escolar (Oller i Vila, 2011).

A finals del segle XX comencem a trobar diferents aportacions teòriques que intenten explicar aquestes desigualtats. Algunes es centren en *raons biològiques* (Hernstein i Murray, 1994), altres en *raons personals* i d'altres en *raons socioculturals*. Si ens fixem amb les primeres, les *raons biològiques* -de tipus genètic-, les diferències en el rendiment acadèmic entre diferents grups culturals són degudes a la capacitat intel·lectual innata dels alumnes. L'allau de crítiques en contra aquesta hipòtesi no es va fer esperar, a l'evidenciar que si era verdadera no tenia sentit realitzar canvis o intervencions a nivell educatiu i, a la vegada, la forta càrrega ideològica no era compartida per molts professionals compromesos amb la reforma social i educativa.

Pel que fa referència a les *raons personals*, tampoc en són una bona explicació. No es pot limitar el discurs en justificar que hi ha una determinada disposició, favorable o desfavorable, davant l'aprenentatge. Les diferències són sistemàtiques, al llarg del temps i en els diferents contextos d'interacció dels alumnes.

Per tant, les *raons socioculturals* són les que tenen més recolzament i impacte en la recerca i pràctica educativa per a poder explicar les diferències en el rendiment acadèmic d'alumnat d'origen estranger. Primer, trobem les aportacions centrades en el dèficit o privació cultural. Aquests argumentaven que els coneixements, experiències i habilitats de les persones depenien de la seva classe i condició social, per tant, en les famílies immigrants hi havia una mancança en la riquesa dels recursos cognitius i lingüístics necessaris per a poder fer front a les demandes de l'escola; a diferència de les famílies autòctones, on aquests recursos eren presents. Però, explicar el baix rendiment d'alumnat immigrant a partir de carències lingüístiques, econòmiques o intel·lectuals tampoc creiem que sigui una bona explicació, no deixa de ser un dèficit interpretatiu. En aquesta línia, Calero i Escardíbul (2013) ens donen més arguments per a rebutjar aquest tipus de raons, aquests autors mostren una relació nul·la entre l'efecte de l'idioma o la llengua materna en el rendiment escolar.

Segon, ens referim al "*paradigma de les continuïtats i discontinuïtats família-escola*" (Poveda, 2001) i les corresponents relacions de poder que s'estableixen entre el grup cultural majoritari i el minoritari. Aquesta aportació concep els alumnes de classe mitja/mitja-alta, com a grups majoritaris que realitzen una transició menor i menys problemàtica de la família a l'escola, que aquells alumnes de classe mitja-baixa/baixa. Pels infants i joves provinents del grup cultural majoritari hi ha un marc de referència compartit -el sentit, els codis verbals i els codis no verbals- entre els agents educatius escolars i familiars. A diferència, dels que provenen del grup cultural minoritari, en què hi ha un desconeixement i/o distància que interfereix en els processos de relació entre l'escola i la família. És a dir, els alumnes de grups culturals minoritaris estan en situació de desavantatge, ja que han de fer una transició major de les seves formes de vida quotidianes envers a contextos formals, que requereixen de determinats codis, normes i continguts.

No sols hi ha una afectació en l'alumnat, també en les famílies d'aquests alumnes. Vila (2013) descriu les diferents formes d'establiment de relació entre les famílies i el claustre de professorat. Aquest autor, descriu que les famílies de classe mitja/mitja-alta no presenta problemes per establir canals de comunicació i, si estan en desacord o volen comunicar quelcom, utilitzen estratègies personals per a negociar el projecte que desitgen pels seus fills. El cas contrari són les famílies de classe mitja-baixa/baixa, que els costa establir canals de comunicació amb el centre educatiu i, molts d'ells es senten en inferioritat davant la institució escolar (fet que provoca que es sentin excloses en molts casos). Les justificacions al respecte són tres: a) major consens entre objectius educatius per part del professorat i de les famílies de nivell sociocultural mitjà/alt (confiança mútua); b) quan l'escola ignora el punt de vista de les famílies es creen situacions de fricció i allunyament (discontinuitat educativa); i c) l'experiència educativa que tenen un tipus de família o altre (per les primeres és més fàcil reconèixer el valor i el sentit de canals de comunicació com reunions de classe, entrevistes individuals,...).

En paraules de Poveda (2001) adoptar aquest marc explicatiu ens dirigeix cap a una concepció i pràctica educativa concreta, el que coneixem com a ensenyança cultural

congruent -culture-based-teaching- (McIntyre, Kyle i Rightmyer, 2005). Aquesta narra que, si es modifica l'activitat de l'aula per aproximar-la a les experiències dels alumnes, aconseguim augmentar una major competència conceptual i facilitem la seva transició a la dinàmica i funcionament social de la cultura escolar. Per tant, quan parlem de transformació ens referim al canvi de la pròpia pràctica i del context escolar amb l'objectiu de que es pugui oferir una àmplia cobertura a tot l'alumnat de l'aula, més enllà de les seves característiques lingüístiques, religioses, econòmiques o identitàries. És a dir, incorporar el ventall socio-interactiu-cultural de les diferents minories culturals de l'aula implica conèixer empíricament aquests repertoris, el que en els següents apartats anomenem **fons de coneixement** i **identitat** que els alumnes "porten" a les aules producte de les seves experiències prèvies d'aprenentatge.

CONTEXT HISTÒRIC i POLÍTIC de l'APROXIMACIÓ dels FONS de CONEIXEMENT

Per entendre la perspectiva dels **fons de coneixement** s'ha de tenir en compte el marc i motivació política que l'origina, així com els treballs pioners de l'antropòleg Carlos Vélez-Ibáñez. Per això l'objectiu d'aquest apartat és contextualitzar l'origen i desenvolupament històric de l'aproximació objecte d'anàlisi.

Tal i com argumentem en el primer article adjuntat en el compendi de publicacions, l'aproximació suposa una resposta a l'anomenada perspectiva del dèficit en educació, que ja ha estat presentada anteriorment a propòsit de la comprensió del rendiment acadèmic de les minories culturals (València, 2010). Segons Moll (2005) *“és impossible ignorar que les pràctiques escolars estan relacionades amb qüestions de poder i racisme a la societat nord-americana, especialment en relació als estudiants i famílies de classe treballadora (...) És en aquest context que hem de situar el nostre estudi”* (p. 276).

En aquest sentit, i com a exemple il·lustratiu, recentment es compliran 20 anys de l'entrada en vigor de la proposició 227 de l'any 1998 a l'Estat de Califòrnia promoguda pel multimilionari Ron Unz de Silicon Valley i anomenada “Anglès pels nens”. Posterior a la proposició anti-immigració 187 i anti-acció afirmativa 209, aquesta mesura va suposar acabar de manera efectiva amb l'educació bilingüe a tot l'Estat. A partir del 3 d'agost de 1998 és il·legal que els mestres utilitzin qualsevol altra llengua que no sigui l'anglès. Més recentment, són conegudes les lleis restrictives en quant al tractament dels immigrants (en el cas d'Arizona, per exemple, la Llei SB1070).

Polítiques com les descrites suposen el que Moll (2005) anomena un *dèficit interpretatiu* de les famílies d'origen estranger als Estats Units d'Amèrica que es conceben com a unitats desestructurades, amb carències de tot tipus, portadores de drogues i delinqüència (només cal recordar recents declaracions de Donal Trump en el marc de les eleccions presidencials dels Estats Units d'Amèrica).

Contràriament, es parteix de la premissa segons la qual les persones, pel simple fet de ser persones i tenir experiències de vida, són competents. Dit amb altres paraules, les persones acumulen, al llarg de la seva història, sabers, habilitats, que es construeixen com a resultat de la participació en pràctiques educatives, ja siguin formals, com no formals o informals: per exemple participació en pràctiques laborals, religioses o esportives.

No obstant, aquests recursos intel·lectuals, socials i culturals, que tenen totes les famílies –més enllà de les seves característiques econòmiques, socials, polítiques i culturals–, sovint són invisibles en la *pràctica educativa* escolar. És més, sovint són menystingudes i sota el paraigües de prejudicis i estereotips falsament compreses. Per exemple, la falta de domini de la llengua anglesa pot ser compresa com un dèficit lingüístic, però un anàlisi profund pot revelar que la família disposa d'amplis coneixements i competències multilingües: àrab, francès, i altres llengües. En aquest sentit, la persona que realitza el judici pot passar d'una concepció basada en el dèficit a una concepció, empíricament fonamentada, basada en la riquesa d'habilitats d'aquella unitat familiar. En qualsevol cas, el que ens interessa destacar aquí és la dimensió política subjacent a l'aproximació dels fons de coneixement.

Per altra banda, la pròpia noció de fons de coneixement sorgeix en el marc dels treballs antropològics de Carlos Vélez-Ibáñez conduïts a la regió d'Arizona. La pregunta fonamental de l'autor és: "Quines són les condicions i circumstàncies que permeten a les persones d'origen hispà sobreviure i desenvolupar els seus projectes de vida en una societat hostil i restrictiva com la dels Estats Units d'Amèrica?, Com els immigrants s'ho fan per sobreviure sota restrictives pressions socials, econòmiques i polítiques?" (Vélez-Ibáñez, 1996, 2010).

Aquesta pregunta condueix a l'autor a analitzar les formes de "supervivència" identitària i cultural de diferents famílies d'origen mexicà. En l'actualitat, Vélez-Ibáñez és el director del "School of Transborder Studies", a la Universitat Estatal d'Arizona. No obstant, en el moment que va sorgir l'aproximació, entre la dècada dels 80's i dels 90's

del segle XX, l'autor va fundar i dirigir el "Bureau of Applied Research in Antrhology" a la Universitat d'Arizona entre l'any 1982 i el 1994.

En aquest marc institucional, l'autor va analitzar el sistema d'associacions de crèdit informals, anomenats "tandas" o "cundinas", que seguien famílies immigrants que vivien a Tucson (Arizona) però provenien de Mèxic. Aquest sistema es basava en l'associació d'un grup de persones que decidien posar una quantitat determinada de diners en benefici del grup. Una vegada hi havia una necessitat determinada, l'arribada d'un fill per exemple, un membre del grup sol·licitava "x" quantitat de diners per fer front a "x" despesa.

Per l'autor l'aspecte fonamental que garanteix que un sistema d'intercanvi econòmic informal com aquest funcioni és la confiança mútua, considerada un factor fonamental en el manteniment de les relacions socials i d'intercanvi (Vélez-Ibáñez, 1983, 1996). La confiança mútua *"fa possible l'intercanvi d'expectatives positives que mantenen les relacions socials en vincles interpersonals on les informacions, el poder, les emocions, els serveis, els béns, les intimitats i els favors s'intercanvien"* (Vélez-Ibáñez, 2010, p. 42).

La resposta, a la pregunta anteriorment formulada, és que en una regió fronterera on les circumstàncies socials i polítiques són adverses i produeixen incertesa, famílies d'origen hispà, basades en la confiança mútua, intercanvien no només diners, sinó també habilitats, sabers, recursos que permeten combatre la incertesa i garantir l'estabilitat en el dia a dia.

De manera que hem de tenir en compte la importància de dos conceptes fonamentals en el treball de Vélez-Ibáñez, a saber: la importància de la confiança mútua com a medidora dels intercanvis i relacions interpersonals, així com la importància dels intercanvis entre les persones per la millora del seu benestar i qualitat de vida.

Podem rastrejar l'origen de la noció de *funds of knowledge* en aquest context. En particular, durant els anys 1985 i 1987 el mateix Vélez-Ibáñez y el també antropòleg

James Greenberg, entre d'altres, desenvolupen el "Tucson Project" per estudiar les relacions de reciprocitat i sistemes informals d'intercanvi en comunitats d'origen Mexicà de Tucson, Arizona. Metodològicament, i això és també un element fonamental en el desenvolupament de l'aproximació dels fons de coneixement, el projecte implicava visites i entrevistes etnogràfiques a les llars d'aquestes famílies.

En el marc d'aquest projecte inicial sorgeix la noció de funds of knowledge:

"La millor manera d'explicar el que entenem per fons de coneixement és la discussió de l'economia familiar de Wolf (1966). Segons l'autor cal distingir diferents fons que una llar o unitat familiar disposa: fons socials, fons per la renda, fons de recanvi, fons calòrics. Vinculats en aquests fons hi ha una sèrie d'activitats que requereixen específics cossos estratègics d'informació que la llar necessita per mantenir el seu benestar. Si dividim aquests fons com a fons de coneixement d'especial importància per la llar, llavors ens hem de formular preguntes pertinents com: Com s'han format històricament? Com varien d'una llar a una altra? Com es transformen d'un context a un altre? Com s'han après i transmès? Com estan socialment distribuïts?"

(Vélez-Ibáñez i Greenberg, 1992, p. 314)

Com reconeixen autors representatius d'aquesta perspectiva: *"En molts sentits, el "Projecte Tucson" consisteix la font de les bases teòriques i metodològiques del Projecte fons de coneixement"* (González, Moll i Amanti, 2005, p. 3).

L'any 1986 Luis Moll, psicòleg educatiu d'orientació vigotskiana, s'incorpora a la Universitat d'Arizona després del seu pas per la Universitat de Califòrnia amb un dels referents en psicologia cultural més destacats, Michael Cole. A San Diego, Moll havia estudiat l'organització social de l'educació bilingüe utilitzant l'etnografia com estratègia metodològica. Aquest treball, conjuntament amb el llegat de Vélez-Ibáñez, constitueix la base del primer estudi educatiu basat en la noció dels fons de coneixement l'any 1988. El projecte s'anomenà "The Community Literacy Project (CLP)":

"La idea era la següent: replicar les tres parts del disseny implementat a San Diego: observacions de les llars, creació d'un grup d'estudi i el treball escolar. No obstant, suposava també incorporar els treballs de Vélez-Ibáñez i Greenberg en relació als fons de coneixement. Vam anomenar l'estudi "Projecte d'Alfabetització Comunitària". El propòsit fonamental era

documentar els **fons de coneixement** i les pràctiques d'alfabetització de les llars que vàrem analitzar, així com ajudar a alguns docents a generar noves formes d'ensenyança de l'alfabetització a partir de les dades de les llars identificades prèviament”

(González, Moll i Amanti, 2005, p. 5)

Després d'aquesta experiència, el projecte pilot fons de coneixement va iniciar-se durant el curs 1990-91 amb 10 mestres de tres escoles diferents. El supòsit de partida seguia essent el convenciment de que el procés escolar es pot transformar positivament quan els docents aprenen sobre les condicions de vida dels seus estudiants i les seves famílies (González, 1995). Principi que es manté en projectes successius com el BRIDGE, centrat en competències i sabers matemàtics (González, Andrade, Civil, & Moll, 2001), o el projecte descrit en el tercer article, el Projecte Camins, realitzat a un centre educatiu de la ciutat de Banyoles (província de Girona). Dit amb altres paraules, famílies i comunitats de qualsevol procedència social i cultural disposen de recursos lingüístics i culturals que poden enfortir i actuar de bastida en l'aprenentatge escolar dels seus fills i filles si els docents són capaços d'identificar-los empíricament i vincular-los al currículum i pràctica escolar. Tal i com van anticipar els anteriorment ja mencionats Vélez-Ibáñez i Greenberg (1992):

“El propòsit del nostre treball es oferir un context antropològic que faci possible la reforma educativa de les escoles públiques que tenen alumnat procedent de Mèxic. La nostra tesis es que els centres educatius públics sovint ignoren els recursos estratègics i culturals, que anomenem fons de coneixement, que les llars disposen. Pensem que aquests recursos no només permeten entendre els sistemes culturals dels nens i nenes d'origen Mexicà que viuen a USA, sinó també són importants i útils recursos en les aules” (p. 313)

Pensem que tenint en compte aquest context polític i històric és pot entendre, amb una major profunditat, tant el concepte de fons de coneixement, que descriurem a continuació (i que apareix en els tres articles que constitueixen aquest treball de tesis), com el procediment metodològic que suposa dit projecte. Precisament a continuació l'objectiu és descriure tant les bases teòriques com metodològiques de l'aproximació aquí adoptada.

BASES TEÒRIQUES i METODOLÒGIQUES de l'APROXIMACIÓ dels FONDS de CONEIXEMENT i d'IDENTITAT

Per **fons de coneixement** s'entén: *“cossos de coneixement culturalment desenvolupats i històricament acumulats, així com les habilitats essencials pel funcionament i benestar familiar o individual”* (Moll 1997, p. 47). Per tant, la noció es refereix als sabers, competències i destreses disponibles en una llar que són el resultat de la participació en pràctiques socioculturals. Per exemple, com a resultat de l'experiència professional en el món de la jardineria, un pare o mare s'ha apropiat de sabers i habilitats vinculats/des al creixement de les plantes, la tipologia d'espècies autòctones, productes d'abonament, etc.

No obstant, no cal oblidar que a part de competències: saber música, saber parlar “x” llengua, saber realitzar “x” operacions matemàtiques, etc., els fons de coneixement emergeixen de processos transaccionals entre les persones.

“Utilitzem el concepte de “fons de coneixement” per referir-nos a les diferents xarxes socials que connecten les llars amb els seus respectius ambients socials i faciliten l'intercanvi de recursos, incloent coneixements, habilitats, treball essencial pel funcionament de la casa, així com el seu benestar”

(Moll, Tapia i Whitmore, 1993, p. 140)

Volem destacar un parell d'elements d'aquesta definició. La primera és la concepció positiva de les famílies. Es parteix del pressupòsit que les unitats familiars, per naturalesa, desenvolupen recursos implicats en el manteniment del seu benestar i qualitat de vida. En segon lloc, es tracta de recursos que les famílies posen a disposició. Per exemple, en un context comunitari, un pare pot ajudar al veí a arreglar el jardí, perquè té fons de coneixement vinculats a la jardineria, mentre que la mare del veí l'ajuda amb l'economia ja que és comptable. Aquest supòsit es deriva del treball empíric, resultat del qual els autors identifiquen que les famílies intercanvien “favors” en forma de coneixements i habilitats, a diferència del mercat capitalista on es canvien diners per treball, servei o producte.

La noció, que té el seu origen en els treballs antropològics de Vélez-Ibáñez i Greenberg, es reconceptualitza vigotskianament a partir de la incorporació de Luis Moll al grup dels anomenats “acadèmics de Tucson” (Hogg, 2011). En aquest sentit s’ha de mencionar tres nocions cabdals de la perspectiva teòrica adoptada.

En primer lloc, la definició de **cultura**. La cultura no es concep com una entitat homogènia, estàtica, que caracteritza una suposada essència d’un grup. Els catalans, per exemple, comparteixen “x” característiques. Més aviat, la cultura és el resultat de processos híbrids d’intercanvi i construcció de sabers vinculats a la participació en pràctiques de vida. Dit amb altres paraules, la cultura no consisteix en expectatives compartides d’un grup, idees estàtiques que les persones comparteixen sobre com és el món i com hom s’ha de comportar, sinó que la cultura es constitueix a través de pràctiques: allò que la gent fa, sent i viu.

“La noció de *cultura* pressuposa una coherència dins un determinat grup que de fet no ha existit mai. Contràriament, nosaltres ens centrem en les *pràctiques*, que és allò que les famílies fan, i allò que diuen sobre el què fan. En aquest sentit s’obre un panorama nou a l’hora d’entendre com les famílies utilitzen estratègicament multitud de sistemes cultures”

(González, Andrade i Carson, 2001, p. 105)

Des del punt de vista educatiu, això suposa concebre els estudiants no com aprenents cognitius, o subjectes en un sentit abstracte, sinó com a participants en relacions socials d’intercanvi a partir de les quals s’apropien de sabers i habilitats que constitueixen, de fet, els seus propis fons de coneixement.

I d’aquí prové una de les crítiques que ha rebut aquesta aproximació. Si bé el reconeixement i afirmació de les competències de les famílies permet connectar, potencialment, el currículum amb les formes de vida dels estudiants (McIntyre, Rosebery i González, 2001); també és veritat que la unitat d’anàlisi són les llars dels estudiants i, en aquest sentit, les persones adultes: els pares, les mares o els cuidadors. A més, poden existir discontinuïtats entre els sabers d’un pare, agricultura, i els sabers d’un fill, astronomia. Aquestes discontinuïtats es refereixen al caràcter experiencial dels fons de coneixement. Dit amb altres paraules, els fons de coneixement són el

resultat de la participació en pràctiques socioculturals i les pràctiques socioculturals, en una comunitat, són diverses: actes religiosos, participació en activitats esportistes, videojocs, utilització de determinats recursos d'Internet, etc. Per tant, els estudiants poden tenir els seus propis fons de coneixement diferents dels fons de coneixement dels seus pares. D'aquí sorgeix la noció de **fons d'identitat**.

Taula 2. Contrast entre els conceptes de fons de coneixement i fons d'identitat

	Fons de coneixement	Fons d'identitat
Definició	Repertori de recursos intel·lectuals i culturals (habilitats, sabers, idees, relacions) que una llar acumula i utilitza per mantenir el seu benestar i qualitat de vida	Persones significatives, institucions, artefactes culturals, espais geogràfics i pràctiques significatives incorporades en la definició que hom fa de si mateix.
Unitat d'anàlisi	La llar (la família i les seves xarxes socials, pràctiques culturals i experiències vitals)	L'aprenent. Les seves pràctiques i experiències significatives a través del temps i de la participació en diferents contextos de socialització.
Procediment d'identificació	Anàlisis etnogràfic dels membres d'una llar familiar a través de visites que realitzen els docents	A través de la creació d'artefactes on els aprenents hi projecten les seves identitats com ara un "dibuix identitari".

Esteban-Guitart i Moll (2014a) defineixen la noció de la següent manera:

"Els fons de coneixement es converteixen en fons d'identitat quan les persones utilitzen aquests (fons de coneixement) per auto-definir-se. En particular, entenem per fons d'identitats els recursos, socialment distribuïts, històricament acumulats i culturalment desenvolupats essencials en la auto-comprensió, auto-expressió i auto-definició. Dit amb altres paraules, la noció de fons d'identitat denota una sèrie de recursos o caixa de signes i instruments" (p. 37).

Aquesta "caixa de signes" o "instruments" remet a una tipologia que distingeix entre 5 tipus de fons d'identitat, segons quin en sigui el seu origen i contingut (Esteban-Guitart, 2014, 2016). En aquest sentit, quan la persona incorpora en la visió o vivència de sí mateix referències a persones significatives com membres de la seva família, estaríem parlant de *fons socials d'identitat*. Si la persona dibuixa, representa o utilitza un artefacte cultural com a element definitori (per exemple un instrument musical o una bandera) llavors parlem de *fons culturals d'identitat*. Quan allò que es fa referència remet a una institució, entenent per institució un mecanisme que ordena i normalitza la conducta d'un grup de persones, ens trobem davant de *fons*

institucionals d'identitat, per exemple la referència a l'Església Catòlica. També es tenen en compte els espais, paisatges, llocs geogràfics (un riu, un poble, un determinat context rural o urbà), per exemple la menció d'una muntanya com element identitari. En aquest cas parlem de *fons geogràfics d'identitat*. Finalment, el conjunt d'activitats, aficions, pràctiques de la vida quotidiana que la persona realitza i destaca com a significatives es destaquen com a *pràctiques identitàries* o *pràctiques d'identitat*.

Aquesta tipologia de fons d'identitat, al igual que la noció de fons de coneixement, remet a un principi vigotskià fonamental en l'aproximació, a saber, el caràcter culturalment situat i distribuït (mediat) de l'agència i activitat humana (Moll, 2014; Moll, Tapia i Whitmore, 1993). Dit amb altres paraules, els recursos, sabers i habilitats familiars, així com la identitat dels aprenents, no està continguda dins la ment dels participants, sinó distribuïda entre ells i els recursos, pròtesis, que utilitzen: les xarxes socials, els instruments psicològics o culturals utilitzats, etc.

El concepte de **mediació** és central en el pensament de Vigotski. De fet, es pot considerar la característica fonamental dels anomenats processos psicològics superiors com el pensament verbal (Vigotski, 1962, 1978; Vila, 1987; Wertsch, 2007). Totes les funcions psicològiques superiors es construeixen primer a nivell social i suposen la apropiació, incorporació, domini d'un determinat instrument psicològic o artefacte cultural (Cole, 1996), havent-hi una "tensió irreductible" (Wertsch, 1998) entre l'individu i l'instrument cultural que està utilitzant: sigui el llenguatge, una bandera o un ordinador.

"Les funcions psicològiques apareixen inicialment en llur forma elemental i, després de la mediació social, es transformen en superiors. Així, el desenvolupament natural o biològic possibilita funcions en les formes elementals, mentre que el desenvolupament cultural les transforma en funcions psicològiques superiors"

(Vila, 1987, p. 46)

En aquest breu fragment Vila parla de dues formes de mediació: la social i la cultural. La primera estaria vinculada als fons socials d'identitat, al protagonisme d'altres persones com a mitjanceres d'aprenentatges diversos. Mentre que el

desenvolupament cultural remet al domini, aprendre a utilitzar, un determinat instrument psicològic o cultural com el llenguatge, els escacs o una determinada aplicació informàtica.

De fet, Moll (2014) distingeix cinc tipus de mediació. La *mediació social i instrumental*, de les quals ja hem parlat (interaccions i transaccions socials que permeten la incorporació a pràctiques culturals, així com la utilització d'artefactes que permeten implicar-se en dites pràctiques). Però també parla de la *mediació semiòtica*, sistemes com l'art, les matemàtiques o la lectoescriptura, que transformen qualitativament la ment i activitat humana (Vila, 1987); la *mediació anatòmica* (la utilització del cos per manipular l'ambient o la representació d'un mateix), així com la *mediació individual* (la subjectivitat de la persona com a mitjancera i conductora dels seus processos i activitats d'aprenentatge).

A més, Moll incorpora la noció de mediació en un dels elements vertebradors bàsics del procediment implicat en la materialització de l'aproximació dels fons de coneixement, els anomenats **grups d'estudi**, que incorporen els docents participants, així com els professors-investigadors. Es tracta, segons Moll (2014), d'una "estructura medidora" que permet posar en intercomunicació la visita a les famílies (per detectar-ne els seus fons de coneixement) amb la transformació de la pràctica educativa escolar (a partir de la incorporació i capitalització educativa dels fons de coneixement prèviament detectats). És en el grup d'estudi on els participants es familiaritzen amb les bases teòriques del programa i amb les entrevistes i anàlisis etnogràfics per identificar els fons de coneixement, on es preparen i es comenten les visites realitzades, i on s'utilitzen els sabers, els recursos i les habilitats identificades per realitzar innovacions educatives.

Tal i com argumenten Jovés, Siqués i Esteban-Guitart (2015), i com es defensa i desenvolupa en el tercer dels articles inclosos en aquesta tesi doctoral, els grups d'estudi es poden considerar un exemple de "comunitat de pràctica" (Lave i Wenger, 1991). Des d'aquesta perspectiva, el docent s'incorpora en un grup social mogut per un interès compartit, en aquest cas professional (optimitzar els aprenentatges dels

alumnes), i al fer-ho s'apropia d'un llenguatge específic, la noció de fons de coneixement, per exemple, d'una manera pròpia de comprendre les relacions família-escola, la pràctica educativa escolar, el rendiment acadèmic de les minories culturals, l'estatus de les famílies, etc. En definitiva, el participant transforma la seva identitat. Per exemple, el docent incorpora al seu rol tradicional d'ensenyant el rol d'aprenent, d'aprenent de les famílies per treure'n profit i rendiment pedagògic.

“La persona –conclouen Lave i Wenger (1991, p. 99) – es converteix en experta, un recent arribat transformant-se en un veterà, els coneixements, habilitats i discurs del qual són part del desenvolupament d'una identitat, en definitiva un membre d'una comunitat de pràctica. Aquesta idea de pertinença/identitat està fortament vinculada a una concepció de motivació. Si la persona és a la vegada membre d'una comunitat i agent d'activitat, el concepte de persona lliga estretament el significat i l'acció en el món”.

Tal com defensem en el tercer article pensem que la creació d'un grup d'estudi és un context idoni per la formació docent doncs en ell, a través de l'ajuda mútua, de la pràctica real i situada, les persones s'apropien de coneixements i transformen, en aquesta apropiació, el seu sentit i la seva agència en tant que docents. Aprenen a establir noves relacions amb les famílies basades en el concepte anteriorment emfatitzat a propòsit dels treballs de Vélez-Ibáñez: la **confiança mútua**. Sense confiança mútua és difícil que es puguin establir relacions de col·laboració i participació activa i positiva que permetin posar en comunió la cultura i context escolar amb la cultura i context familiar.

Aquí pren sentit la noció de **mesosistema** i l'anteriorment presentat *marc de les continuïtats-discontinuitats família-escola*.

“El potencial de desenvolupament d'un escenari de criança es veu incrementat en funció del número de vincles entre aquest escenari i altres contextos on s'insereix el nen/a i els adults responsables de la seva criança. Aquestes interrelacions poden adoptar la forma d'activitats compartides, comunicació en els dos sentits i informació subministrada a cada escenari sobre els demés”

(Bronfenbrenner, 1985, pp. 51-52)

Per Bronfenbrenner l'articulació de contextos de vida (la creació de continuïtats educatives entre diferents escenaris de socialització) es converteix en beneficiós per a

la persona en desenvolupament, donat que es tradueix en consistència educativa. El mateix Bronfenbrenner, no obstant, insisteix en la importància de la confiança mútua per a què hi hagi tant les activitats compartides, com l'intercanvi de comunicació i informació entre entorns.

“El potencial evolutiu dels entorns d'un mesosistema es veu incrementat si els rols, les activitats i díades en les que participa la persona vinculant amb altres entorns estimula l'aparició de confiança mútua, una orientació positiva, el consens de metes entre entorns, i un equilibri de poders progressiu que respongui a l'acció en nom de la persona en desenvolupament”

(Bronfenbrenner, 1987, p. 58)

Encara que l'aproximació dels fons de coneixement sorgeix de l'antropologia i amb Norma González, Marta Civil i principalment Luis Moll es conceptualitza a partir d'una perspectiva sociocultural d'orientació vigotskiana; pensem que la incorporació de la perspectiva ecològica i sistèmica (el marc de les continuïtats-discontinuitats família-escola, així com la noció de mesosistema) permeten enriquir la conceptualització original.

Com hem intentat mostrar aquí, les nocions de cultura entesa com a pràctica i experiència-vivència, la noció de mediació, la transformació identitària, el marc de les comunitats de pràctica i el concepte de mesosistema són els elements bàsics que permeten contextualitzar teòricament el marc dels fons de coneixement i d'identitat, objecte d'anàlisi en aquesta tesis. Una aproximació que, tot i tenir els seus orígens ara fa més de 30 anys, segueix vigent i amb una gran vitalitat, com intentem mostrar i revisar en els dos primers articles inclosos en aquest compendi. L'objectiu de la secció següent és, precisament, contextualitzar aquests dos treballs.

REVISIÓ de la LITERATURA. L'APROXIMACIÓ dels FONS de CONEIXEMENT 2011-2015

Recentment, han aparegut diferents valoracions, reflexions i revisions de la literatura que mostren l'actualitat i l'estat de l'aproximació dels fons de coneixement (Civil, 2016; González, Wyman i O'Connor, 2011; Hogg, 2011; Llopart i Esteban-Guitart, en premsa; Moll, 2014, 2015; Rodríguez, 2013; Subero, Vila i Esteban-Guitart, 2015; Turner, E. i Drake, 2016; Verdin, Godwin i Capobianco, 2016).

Algunes d'aquestes revisions es centren en àmbits curriculars específics, per exemple les anomenades STEM, acrònim en anglès de ciència, tecnologia, enginyeria i matemàtiques (Civil, 2016; Verdin, Godwin i Capobianco, 2016) o exclusivament matemàtiques (Turner i Drake, 2016). Àmbit que no és el focus de la nostra atenció aquí. En canvi existeixen altres revisions que tenen el propòsit de situar contemporàniament la perspectiva dels fons de coneixement (González, Wyman i O'Connor, 2011; Hogg, 2011; Moll, 2015; Rodríguez, 2013). Aquest sí que és el propòsit dels dos articles de revisió que apareixen en aquesta tesis basada en un compendi d'articles (Llopart i Esteban-Guitart, en premsa; Llopart i Esteban-Guitart, sota revisió). Específicament, amb l'objectiu de situar aquests dos articles, descrivim breument tres d'aquestes revisions. Per ordre cronològic, la de Hogg (2011), Rodríguez (2013) i Moll (2015).

HOGG (2011).

Aquesta revisió es centra en respondre dues preguntes: 1) quin és l'abast-situació actual de l'aproximació?, 2) què volen dir els diferents autors que treballen sota aquesta perspectiva quan parlen de fons de coneixement? (clarificació conceptual).

En la relació a la primera pregunta, l'autora destaca que dels articles i treballs revisats (un total de 50: 37 articles, 11 capítols de llibre i 2 informes d'investigació), tan sols 12 es realitzen fora dels Estats Units d'Amèrica. En concret, sis a Austràlia, cinc al Regne Unit i un a Canadà. Gran part de la recerca s'ubica a l'estat d'Arizona (tretze articles en

total). En relació a l'àmbit educatiu destaca educació primària (amb dinou treballs). La principal àrea curricular es l'alfabetització, seguida de la ciència (amb vuit treballs), l'art (amb set treballs), les matemàtiques (amb tres) i la història i ciències socials (amb un treball).

En relació a la segona qüestió, vinculada a la clarificació conceptual de la noció de fons de coneixement, l'autora destaca quatre àrees de discussió en la literatura contemporània: 1) Els fons de coneixement són àrees de coneixement o fons (origen, bases) del coneixement?, 2) Quin coneixement és incorporat en els fons de coneixement?, 3) El coneixement de qui?, 4) Quines són les bases conceptuals de l'aproximació?.

Del total de treballs revisats, uns 35 d'aquests es refereixen al treball fundacional dels "acadèmics de Tucson" per definir el concepte. No obstant, en relació a la llar com a unitat d'anàlisi (d'origen dels fons de coneixement), l'autora identifica altres contextos o àmbits com la comunitat, la cultura popular i el grup d'iguals (per exemple veure el treball de Moje, Ciechanowski, Kramer, Ellis, Carrillo i Collazo, 2004; Andrews i Yee, 2006; o els treballs realitzats en el context educatiu de Nova Zelanda liderats per Helen Hedges –Hedges, 2011, 2015; Hedges i Cooper, 2016; Hedges, Cullen i Jordan, 2011). En aquesta tradició s'ha de situar l'anteriorment mencionat concepte de fons d'identitat que reclama els contextos de vida de l'aprenent com a font dels fons, valgui la redundància, de coneixement. En definitiva, els fons de coneixement emergeixen de les pràctiques de socialització familiars, però també dels interessos, experiències de vida, cultura popular i context escolar dels aprenents, així com els seus grups d'igual i xarxes de relacions. En aquest sentit, també cal considerar les pràctiques digitals com a potencial escenari d'on emanen i construeixen determinats fons de coneixement (Moll, Soto-Santiago i Schwartz, 2013; Schwartz, 2014, 2015); que González-Patiño i Esteban-Guitart (2015) anomenen fons digitals de coneixement i d'identitat.

En relació a la discussió sobre el tipus de coneixement que es refereix la noció de fons de coneixement, la autora revisa el concepte de "fons obscurs de coneixement" ("dark funds of knowledge") proposada per Zipin (2009) segons la qual a més dels "light funds

of knowledge” (coneixements i habilitats vinculades, per exemple, a la construcció, religió, jardineria), els estudiants que viuen sota circumstàncies difícils acumulen també sabers i destreses menys positives associades a la discriminació, l'alcohol, les drogues, l'assetjament o la salut mental (Zipin, 2009, 2013; Zipin, Sellar, Brennan i Gale, 2013).

Finalment, una altra àrea de desacord entre els autors es refereix a quin tipus de coneixement s'ha de considerar per definir la noció de fons de coneixement. En aquest sentit, alguns autors entenen que es tracta de coneixement derivat d'una expertesa distribuïda entre docents, pares i famílies, més enllà de l'aprenent, mentre que d'altres autors es centren exclusivament en les habilitats dels estudiants.

RODRIGUEZ (2013).

En aquest cas, la revisió explora la dimensió educativa de l'aproximació amb un accent al paper del poder i l'agència en les situacions d'ensenyança i aprenentatge. En concret, l'autora es pregunta: 1) Què ens diu l'aproximació dels fons de coneixement en relació a les pedagogies de dins i fora de la classe?, 2) Què es diu en relació al poder i l'agència de docents i estudiants?, 3) Com pot enriquir-se l'aproximació dels fons de coneixement a partir del diàleg d'altres teories que també tenen la intenció de combatre la perspectiva del dèficit com el model de la riquesa comunitària cultural (“Community Cultural Wealth Framework”). De manera que mentre que la revisió de Hogg es centra més en el *com* (la pràctica educativa) i el *què* (el currículum i contingut dels fons de coneixement), Rodriguez es centra en el *per què* i el *per a què* (el context educatiu com escenari de relacions de poder i d'agència). Per aquest propòsit l'autora creua la noció de fons de coneixement i pedagogia i revisa 64 articles publicats entre l'any 1992 i l'any 2011.

Pel que fa a la seva primera pregunta, Rodriguez conclou que tres temes sorgeixen en revisar les aplicacions de l'enfocament dels fons de coneixement. En primer lloc, hi ha la participació dels estudiants en la co-construcció del coneixement per tal d'ampliar el coneixement acadèmic a través del seus sabers previs i habilitats, el que implica una pedagogia sensible a les formes de vida dels estudiants. Un dels exemples que cita

d'aquesta idea és la el projecte “Redesigning Pedagogies in the North (RPIN)” dut a terme a Austràlia (Zipin, 2009, 2013). En segon lloc i, vinculat amb aquest primer punt, els interessos i cultures populars dels estudiants són reconeguts i utilitzats educativament. Això està relacionat, segons Rodríguez, a una pedagogia de la resistència i oposició a un cert tipus d'hegemonia de l'escola i els discursos associats a les idees de dèficit cultural. Finalment, el tercer tema que identifica l'autora fa referència a les relacions entre els estudiants, l'escola, la família i la comunitat a través d'una reorientació del contingut acadèmic i la instrucció basada en el coneixement local. Aquesta perspectiva empodera l'agència dels estudiants, al convertir-los en autèntics autors i protagonistes del procés educatiu. En aquest punt, l'autora realitza un anàlisi en profunditat i crític d'alguns aspectes relatius a les relacions de poder i de l'agència, que respon a la segona pregunta que dirigeix la seva revisió de la literatura, i que ella vincula a una pedagogia que opera a un doble pla, micro i macro, per facilitar la transformació social a través de les pràctiques educatives més inclusives i en favor de la justícia social. Per exemple, les relacions convencionals de poder entre els docents i les famílies es transformen en l'aproximació dels fons de coneixement. Els docents passen de ser experts a assumir un rol d'aprenents i les famílies de receptores dels missatges escolars a productores de continguts i motius d'aprenentatge.

L'autora conclou que la majora de les investigacions i experiències identificades coincideixen en promoure un discurs i pràctica educativa contra-hegemònica *“dins d'un ambient educatiu i social que està determinat per relacions asimètriques de poder tant en els micro-nivells de les comunitats escolars con els macro-nivells de les estructures de poder de la societat”* (Rodríguez, 2013, p. 110).

Finalment, en relació a la darrera de les preguntes plantejades per l'autora, s'examinen convergències entre l'aproximació dels fons de coneixement i la perspectiva comunitària de la riquesa cultural (“Community Cultural Wealth Framework”). Aquesta aproximació té l'objectiu de reconèixer les fortaleces (els punts forts) de la comunitat per tal de contrarestar el discurs del dèficit associat a poblacions minoritzades. En el primer dels articles es discuteix la relació entre aquests dos enfocaments, donat que la revisió nostra efectuada entre els anys 2011 i 2015 també

emergeix com a un debat important la relació de la perspectiva dels fons de coneixement amb altres models i marcs com la teoria del capital, on es pot situar el treball identificat per Rodríguez de Yosso (2005).

MOLL (2015).

La darrera revisió que ens agradaria mencionar aquí per contextualitzar les dues revisions que s'inclouen en aquesta tesis no és tècnicament una revisió en profunditat de la literatura, però sí que és un anàlisi realitzada per Luis Moll, un dels màxims representants de la perspectiva dels fons de coneixement.

En aquest treball, l'autor resumeix l'aproximació i destaca la voluntat d'ampliar l'aprenentatge a partir de recursos dels docents i dels mestres. En un altre treball recent de l'autor, es centra en els conceptes ja descrits anteriorment en els treballs de Hedges (2012), de Zipin (2009, 2013) i la noció de fons d'identitat d'Esteban-Guitart (Moll, 2014). En aquest article, l'autor destaca tres usos contemporanis diferents als descrits anteriorment (Moll, 2015).

En primer lloc, es discuteixen dos aspectes crucials de l'aproximació. Per una banda, es destaca que una de les motivacions principals és facilitar que els docents desenvolupin representacions dels seus estudiants i les seves famílies basades en les destreses i coneixements que tenen, derivats/des de les seves particulars experiències vitals. Aquests bancs i repertoris d'habilitats i sabers necessiten ser identificats empíricament. I necessiten, també, ser incorporats a la pràctica educativa per tal de, com s'argumenta en el segon article de la tesis doctoral, aquesta estigui contextualitzada i sigui culturalment congruent (McIntyre, Kyle i Rightmyer, 2005; McIntyre, Rosebery i González, 2001; Llopart i Esteban-Guitart, sota revisió). Es tracta, també, d'una manera de vincular el docent amb la comunitat on treballa, aspecte especialment important quan aquest treballa en un context desconegut. *“És una manera d'implicar els docents estratègicament amb els seus contextos culturals d'ensenyança, una necessitat absolutament imprescindible en els contextos socioculturals de ràpida i profunda transformació que viuen les escoles*

contemporànies” (Moll, 2015, p. 114). En definitiva, es tracta, segons l’autor, de concebre el docent com aprenent, aspecte que considera central en l’aproximació.

En segon lloc, es destaca la idea segons la qual els docents s’apropien d’un seguit de recursos que els permeten *“desenvolupar una pedagogia que permet vincular-se amb les experiències dels estudiants, així com facilitar la seva implicació i rendiment acadèmic”* (Moll, 2015, p. 115). Aquí, els grups d’estudi es converteixen en l’escenari idoni per fomentar aquests processos de vinculació.

Una vegada emfatitzats aquests dos principis, l’autor destaca, com ja s’ha dit anteriorment, tres experiències concretes que contribueixen, segons Moll, al desenvolupament de l’aproximació.

La primera d’elles es basa en les “Revistes del diàleg familiar” (“Family Dialogue Journals”), experiència desenvolupada a l’Estat de Georgia, USA, amb l’objectiu de fomentar els lligams entre els estudiants, les famílies i els docents a través de revistes que permeten compartir experiències, opinions i altres aspectes significatius de la vida dels alumnes i les seves famílies (Allen, Beaty, Dean, Jones i Mathews, 2015). A més de contribuir en allò que anteriorment hem anomenat continuïtats educatives a través de l’actuació en el mesosistema (enfortint l’intercanvi d’experiències, informacions i comunicacions), Moll considera que l’instrument cultural (els diaris o revistes) permeten identificar i generar nous fons de coneixement vinculats a la vida familiar, les pràctiques culturals, els interessos dels estudiants i les activitats i rutines acadèmiques.

El segon exemple mencionat per Moll es tracta del treball, ja anteriorment citat, de Lisa Schwartz, qui utilitza diferents recursos semiòtics i espais digitals per millorar el rendiment acadèmic d’estudiants d’origen hispà a partir de la connexió entre els seus interessos i pràctiques digitals, per una banda, i els propòsits acadèmics i curriculars, per l’altra.

Finalment, l'autor discuteix el Projecte d'educació en justícia social ("Social Justice Education Project") de Julio Cammarota. El projecte es basa en implicar els docents i estudiants en el desenvolupament d'una pedagogia per la justícia social. Els estudiants participen activament en el desenvolupament d'estudis socials crítics a través de vídeos, poemes, fotografies que testimonien les seves vides quotidianes i les seves circumstàncies socials, polítiques i personals (Cammarota, 2007). Al final es realitzen "encuentros" (trobades públiques) on els estudiants exposen els seus treballs a la comunitat educativa, a les seves famílies i a administradors locals (Cammarota i Romero, 2014). Tot i l'evidència positiva d'aquest programa en la millora de resultats en els exàmens oficials estandarditzats (Cabrera, Milem, Jaquette i Marx, 2014), Moll lamenta profundament la fi d'aquest programa degut a circumstàncies polítiques.

En definitiva, les tres revisions de Hogg (2011), Rodriguez (2013) i Moll (2015) ens ofereixen una comprensió i descripció del llegat de l'aproximació dels fons de coneixement. Aspecte que esperem contribuir en els dos articles que s'inclouen en aquesta tesis. El primer dels quals consisteix en revisar la literatura des de l'any 2011, on ho havien deixat Hogg i Rodriguez, fins el 2015; el segon, la revisió es centra específicament en la identificació d'estratègies per contextualitzar el currículum i pràctica escolar a partir de l'aproximació dels fons de coneixement.

Finalment, el darrer dels tres articles, pretén descriure i il·lustrar el procediment d'aplicació complert de l'aproximació dels fons de coneixement en un centre educatiu que tot seguit passem a contextualitzar i caracteritzar.

EL PROJECTE CAMINS

Amb la finalitat de poder descriure de forma clara i exhaustiva el Projecte Camins, hem dividit aquest apartat en diferents seccions: context històric-social, l'escola i l'experiència educativa.

CONTEXT HISTÒRIC-SOCIAL.

L'escola Camins és un centre educatiu públic ubicat en un barri perifèric de classe socioeconòmica mitja-baixa de la ciutat de Banyoles (Girona). Aquesta localitat té un total de 19.299¹ habitants (9.652 homes i 9647 dones), dels quals 3.849 són d'origen estranger. Aquest col·lectiu viu en determinades zones de la ciutat (Canaletes, Can Puig i la Farga) que abans havien estat habitades per famílies autòctones.

A inicis dels anys 90, la bonança econòmica (la construcció, l'agricultura i el sector serveis), la proximitat amb Europa i l'aplicació de la nova Llei d'Estrangeria van provocar que la província de Girona es convertís en un territori destinatari per a moltes persones estrangeres (majoritàriament provinents del Marroc i l'Àfrica Subsahariana) en busca d'una nova vida. Aquest fet va provocar una nova configuració de la població en molts pobles i ciutats de la província (com Salt, la Bisbal de l'Empordà o Figueres). Aquesta nova realitat també es reflectia a les escoles i instituts, en els que el percentatge d'alumnat immigrant va anar augmentant fins arribar en els anys de crisi econòmica (en què algunes famílies marxen cap a França i Anglaterra o bé tornaven al seu país d'origen).

La mobilitat de l'alumnat ha disminuït ens els darrers anys. Abans, al llarg del curs escolar sempre hi havien alumnes que canviaven de residència i alumnes de nova incorporació. També hi havia casos en què, durant el curs acadèmic, viatjaven amb la seva família al país d'origen i no tornaven a l'escola fins al cap de tres-quatre mesos. Però aquesta situació ara és més estable. La crisi econòmica va provocar una davallada de la mobilitat de les persones immigrants. Els bitllets ja no eren d'anada i tornada,

¹ Font consultada: IDESCAT (<http://www.idescat.cat>)

sols existien en una sola direcció o, ni existien en alguns casos. Aquest nou fenomen va augmentar la situació de pobresa en algunes zones de la ciutat

A la ciutat hi ha altres centres educatius de titularitat pública que acullen alumnat immigrant: Escola Can Puig (col·lectiu immigrant majoritari: marroquins), Escola Baldiri Reixac (col·lectiu immigrant majoritari: gambians), Escola La Draga (no hi ha representativitat d'un únic col·lectiu immigrant), Escola Pla de l'Ametller (col·lectiu immigrant majoritari: gambians). També hi ha una escola privada concertada (Escola Casa Nostra) que també té alumnat d'origen estranger, encara que amb un percentatge molt i molt inferior a la resta de centres (no supera el 10%).

L'ESCOLA.

L'escola Camins és un centre educatiu de nova creació que neix al febrer de l'any 2012. Des del curs 2012-13 fins el curs passat l'augment d'alumnes ha estat d'un centenar en tres cursos acadèmics. En el curs 2015-16, a l'escola hi havia matriculats 159 alumnes a l'etapa d'Educació Infantil (repartits en els cursos de P3, P4 i P5) i d'Educació Primària (1º). El 40% de l'alumnat era d'origen estranger. A cada nivell hi havia dues aules de referència (excepte a P4 amb només un grup).

Els països d'origen de l'alumnat eren 10. Destaquen Marroc i Gàmbia amb un 16,9% i 10% d'alumnes respectivament. El seguien l'alumnat asiàtic amb un 4,4%, alumnat d'altres països africans (com Mali i Senegal) amb un 3,1% i alumnat provinent de Rússia i Hondures representava únicament el 1,2% dels infants. Es calcula que hi havia més de 6 llengües presents a les aules (àrab, mandinga, català, castellà, xinès, soniké, wòlof).

L'equip humà de l'escola està format per 22 persones, entre professorat i personal de serveis. La plantilla de mestres la configuren 12 professionals (7 mestres especialistes en educació infantil, 2 mestres especialistes en educació primària, 1 mestra especialista en llengua anglesa, 1 mestre especialista en educació musical i 1 tècnica en educació infantil).

La visió de l'escola Camins és ser un espai de creixement i aprenentatge per a contribuir en la transformació de la societat i, a la vegada, ser un centre educatiu referent a la xarxa pública d'escoles de la província de Girona. La missió del centre es basa en el respecte i la satisfacció de les necessitats de l'alumnat i la qualitat educativa.

Una de les característiques més rellevants del centre és la seva proposta pedagògica: els **ambients d'aprenentatge** contextualitzats al territori. Aquests tenen com a objectiu ser agents educatius actius, promotors de la construcció dels aprenentatges a partir del joc, l'experimentació, la relació i la comunicació amb els altres. És a dir, es dediquen diferents aules (o altres espais físics, com el pati) al desenvolupament de diferents competències acadèmiques. Tots aquests espais tenen noms de persones o llocs significatius de la comunitat (veure taula 3) i, molts d'ells són visitats pels alumnes a principi de curs.

Taula 3. Ambients contextualitzats al territori

Títol	Explicació
Darder	Aula dedicada a la <i>ciència</i> en homenatge al metge i veterinari Francesc Darder i Llimona
Ateneu	Aula dedicada a la <i>llengua</i> , vinculada a un recinte cultural municipal
Farga	Aula dedicada a les <i>matemàtiques</i> , vinculada a una antiga fàbrica d'aram
Porta dels Turers	Aula vinculada a les <i>ciències socials</i> , vinculada a un punt de trobada emblemàtic de la ciutat
Petita Factoria	Aula dedicada a la <i>llengua</i> i la <i>música</i> , vinculada a una antiga fàbrica remodelada on actualment es realitzen activitats teatrals (arts escèniques, música,...)
Llotja del tint	Aula dedicada a l' <i>expressió artística</i> , vinculada a una galeria d'art de la ciutat

EXPERIÈNCIA EDUCATIVA.

L'experiència educativa, Projecte Camins, es desenvolupa en 4 fases: a) Fase formativa; b) Fase de treball de camp; c) Fase de disseny i implementació de les activitats educatives i d) Fase d'avaluació. L'aproximació dels fons de coneixement s'articula al voltant de la creació d'un grup d'estudi/grup de discussió, també anomenada comunitat de pràctica, que actua com a estructura medidora entre les visites a les famílies i la transformació de la pràctica escolar. Per això, una de les primeres accions que es desenvolupa en el Projecte Camins és la creació d'un grup d'estudi format per

cinc mestres, dos membres de l'equip directiu i dos professors-investigadors de la Universitat de Girona. De tal manera que el grup d'estudi quedava format per 9 persones. Les mestres van accedir lliurement a participar en el projecte.

En primer lloc, a la *fase formativa*, es va realitzar una primera sessió (19 de febrer de 2016) amb tot el claustre de professorat de l'escola amb l'objectiu d'explicar i discutir l'aproximació dels fons de coneixement. Després d'aquesta primera sessió, es realitzen dues sessions més (4 i 29 de març de 2016) amb les mestres que van decidir participar en el projecte, un total de 5 mestres més la coordinadora i la directora del centre. La segona sessió formativa es va dedicar a llegir i discutir altres experiències basades en l'aproximació dels fons de coneixement (González, Moll y Amanti, 2005; McIntyre, Rosebery, & González, 2001). La tercera sessió formativa s'enfocà a conèixer la metodologia de l'aproximació. Es van tractar temes etnogràfics i es revisaren alguns dels instruments més utilitzats, com són les entrevistes en profunditat o la multimetodologia autobiogràfica, amb l'objectiu de preparar les visites a les llars familiars. Aquestes dues sessions es van realitzar en un espai de la mateixa escola amb un durada aproximada de dues hores.

Figura 1. Sessió formativa



Pel que fa a la segona fase, *treball de camp*, es van realitzar un total de cinc visites a cinc famílies escollides per l'equip docent. Els criteris de selecció van ser: família de l'alumne/a que mostri dificultats en l'aprenentatge i seguiment acadèmic i/o família que no mantingui una relació rellevant amb el professorat de l'escola. Les visites es

van realitzar del 5 al 12 d'abril de 2016, amb equips de dues persones. En concret, es van formar equips de dues mestres que van entrevistar a les famílies els dies 5, 6 i 12 d'abril a cadascuna de les llars familiars dels alumnes escollits (una d'aquesta visites hi va participar un dels professors-investigadors de la Universitat de Girona); excepció d'una família que va ser entrevistada al seu lloc de treball, una botiga de queviures propietat de la família. Totes les famílies van participar voluntàriament i van firmar un consentiment informat que autoritzava la publicació dels resultats i vídeos o imatges en mitjans de docència o investigació. L'objectiu d'aquesta fase era documentar els diferents fons de coneixement de les diferents famílies escollides (1 família xinesa, 1 família marroquina, 2 famílies procedents de Mali i 1 família gambiana). Totes les entrevistes van ser gravades en àudio i, posteriorment transcrites.

Els fons de coneixement detectats per les mestres durant les visites a les famílies van ser: competències multilingües (presència a les llars familiars de diferents llengües: xinès, francès, àrab, mandinga, bambara,...), jardineria i agricultura (conreu d'horts), gastronomia (cuinar amb productes autòctons del país d'acollida i productes propis del país d'origen; l'ús del cacauet en diferents guisats), esports (jugar i mirar partits de futbol), música (balls típics del país d'origen), jocs de taula (jugar a diferents jocs de cartes).

Figura 2. Visita a una llar familiar



La tercera fase, *disseny i implementació* de les activitats educatives, es va desenvolupar a partir del 6 de maig de 2016. En una sessió col·lectiva, en la que el grup

d'estudi va discutir els usos educatius dels fons de coneixement detectats. A partir d'aquí, es realitzaren tres propostes d'activitats educatives vinculades amb alguns d'aquests fons de coneixement detectats. Aquestes activitats es van aplicar durant els mesos de maig i juny. Paral·lelament, es van realitzar tres sessions de seguiment de les activitats (24 i 27 de maig i 2 de juny de 2016), també en el marc del grup d'estudi.

Les tres activitats realitzades van ser: "Juguem a les cartes!", la "motxilla del futbolista", i "els cacauets". La primera activitat tenia com a objectiu Les tres activitats realitzades van ser: "Juguem a les cartes!", la "motxilla del futbolista", i "els cacauets". Els objectius pedagògics de la primera activitat eren: entendre les normes d'un joc de cartes, saber esperar el torn de joc, mantenir l'atenció durant el temps de joc, potenciar la percepció visual i saber buscar les semblances i diferències entre les cartes. La proposta de la present activitat va sorgir arrel de dues de les visites realitzades a les famílies i s'implementa als cursos de P3 i P4. L'espai físic on es desenvolupa l'activitat és el pati. El procediment es basa en repartir les cartes entre els alumnes i col·locar-les cap per avall, una sobre l'altra. Després, un dels jugadors comença agafant una carta del piló i l'ensenya a la resta dels seus companys. Cada persona participant del joc, seguirà el mateix procés. Quan un jugador observi una carta igual a una altra haurà de dir "batalla". El jugador que té la mateixa carta i no diu res, s'haurà de quedar amb totes les cartes.

Figura 3. Infants de P3 i P4 jugant al joc de cartes



L'activitat la *motxilla del futbolista* també es va implementar amb nens de P3 i P4 i tenia coma a objectiu pedagògic treballar el vocabulari, la pronúncia i l'estructura de les oracions en el procés comunicatiu. Es va escollir el futbol perquè va ser un dels fons detectats en dues famílies. L'activitat consistia en posar dins una motxilla tots aquells objectes vinculats amb el futbol: unes botes de futbol, uns pantalons curts, una samarreta de màniga curta, una pilota, uns guants de porter, entre altres objectes. Durant les dues primeres sessions es va presentar la motxilla i, abans d'obrir-la es van plantejar diferents hipòtesis del que hi podia haver a dins. Una vegada oberta, un alumne treia un objecte i havia d'explicar: què era, per a què servia, quin color i forma tenia, i de quin material estava fet. S'intentava provocar una conversa entre tots els alumnes, així com l'explicitació dels seus coneixements previs i vivències personals. A la tercera sessió es recordaven tots els objectes i els alumnes escenificaven que eren jugadors de futbol utilitzant el material de la motxilla. I, a la quarta i cinquena sessió, van participar els familiars d'alguns dels alumnes per compartir experiències de l'àmbit futbolístic.

Figura 4. Alumne de P4 descobrint els objectes de la motxilla del futbolista



L'activitat dels *cacauets* es va realitzar amb les nenes i els nens de P5 i 1º de Primària. La idea de desenvolupar aquesta activitat va sorgir de dues de les visites realitzades, i de la invitació d'una mare (durant una de les visites) a menjar arròs amb cacauets. El fet de barrejar arròs amb cacauets va sorprendre a les mestres i van decidir plantejar algunes activitats que tinguessin com a centre d'interès aquest aliment. En aquest cas, l'àmbit curricular escollit per a duu a terme l'activitat va ser la ciència. Tots els alumnes van plantar els cacauets i van observar el procés de creixement de la planta. Van

utilitzar diferents llengües (català, castellà, anglès, francès, àrab,...) presents a l'aula, afavorint així la participació de les famílies en el vocabulari d'alguns termes. Com a curiositat, degut a l'èxit que va tenir aquest plat, la família va cuinar una bona ració per a la festa final de curs de l'escola.

Finalment, durant la *fase d'avaluació*, es va realitzar una valoració global del Projecte Camins. El 29 de juny de 2016 es va realitzar una sessió col·lectiva, amb tot el grup d'estudi, de valoració-avaluació de l'experiència. L'objectiu era respondre a la següent pregunta: "Quins elements consideres que han estat positius, negatius o de millora, de l'aproximació dels fons de coneixement?". També, durant tot el mes de maig, les mestres van redactar un diari reflexiu narrant la seva experiència en el Projecte Camins. Els professors-investigadors van entregar un document a cada una de les mestres amb la següent consigna: "A partir de la teva experiència en el programa fons de coneixement, en general, i la realització de les visites en particular, ens agradaria conèixer la teva opinió. Per això, et proposem que realitzis un escrit (sense cap mínim ni màxim de pàgines) en el que descriguis i reflexionis sobre la teva participació en el programa". El document constava de quatre apartats: a) Trajectòria formativa i professional; b) Descripció de la visita; c) Fons de coneixement detectats; i d) Conseqüències de la visita. I, a més, es va fer un pre test (4 de març de 2016) i un post test (6 de maig de 2016) amb una breu enquesta sobre les creences que tenien les docents en relació a les famílies immigrants. L'objectiu era documentar el canvi en aquestes concepcions, abans i després de participar en el projecte.

Figura 5. Sessió col·lectiva d'avaluació-avaluació



3. OBJECTIUS TESI DOCTORAL

L'objectiu general de la tesis és conceptualitzar la *pràctica educativa* des de la perspectiva teòrica i metodològica dels **fons de coneixement i d'identitat**.

Per *pràctica educativa* volem transmetre tres idees que es tradueixen en tres objectius específics que, a la vegada, constitueixen les nostres preguntes de recerca:

- En primer lloc, definir el *rol del docent* (quin ha de ser?), així com la seva *formació* (com ha de ser la formació docent?).
- En segon lloc, definir la *pràctica educativa* (com han de ser les activitats curriculars i educatives?).
- En tercer lloc, identificar els *agents implicats* (qui són?). En concret, establir com haurien de ser les *relacions família, escola i comunitat* des de la perspectiva que adoptem en aquest treball (com s'han d'establir les relacions família-escola?).

Es tracta d'objectius, i preguntes associades, subjacents als tres articles que es presenten a continuació i, que en el marc de la discussió i conclusions recuperarem per intentar donar-hi resposta.

4. ARTICLES

FUNDS OF KNOWLEDGE IN 21ST CENTURY SOCIETIES: INCLUSIVE EDUCATIONAL PRACTICES FOR UNDER-REPRESENTED STUDENTS.

A LITERATURE REVIEW (Article 1)

Títol: Funds of Knowledge in 21st Century Societies: Inclusive educational practices for under-represented students. A literature review

Autors: Mariona Llopart Rossell i Moisès Esteban-Guitart

Revista: Journal of Curriculum Studies

Estat: Acceptat

DOI: 10.1080/00220272.2016.1247913

Factor d'impacte JCR: 1.076 (2015), Q2 EDUCATION & EDUCATIONAL RESEARCH

Resum:

Com ja hem comentat en anterior apartats, el marc dels fons de coneixement vol superar la perspectiva de dèficit en el món educatiu a través de la millora de les relacions família-escola i, a la vegada, en el disseny d'activitats curriculars contextualitzades a les experiències vitals i habilitats de cadascun dels alumnes. És, a partir d'aquesta premissa, on neix l'objectiu del present article: descriure els usos de l'aproximació dels fons de coneixement i identificar algunes de les aportacions per a la formació de mestres.

Per a fer-ho possible vam realitzar una cerca específica, amb l'etiqueta "funds of knowledge", a la base de dades ERIC (Educational Resources Information Center) limitant-la als últims cinc anys (del 2011 al 2015). Vam codificar els 92 articles seleccionats segons: la *tipologia d'article* (article de revisió o d'aplicació educativa); els *descriptors principals* (aprenentatge de segones llengües, antecedents culturals, etnografia, immigració, etc.); els *continguts curriculars* (matemàtiques, llengua, tecnologia, geografia,...); el *nivell educatiu* (educació infantil, educació primària o educació secundària) i el *país* on es desenvolupen.

En els articles destaca la utilització dels fons de coneixement per a dissenyar propostes educatives de caràcter inclusiu. També, trobem elements vinculats a la investigació i a la formació docent, tots ells vinculats en diferents àrees curriculars. Dels

noranta dos articles revisats: 69 il·lustren els usos educatius derivats de l'aproximació dels fons de coneixement, 20 narren qüestions teòriques sobre la perspectiva teòrica i metodològica i 3 revisen la literatura existent.

Pel que fa referència als seixanta nou articles vinculats als usos educatius, n'hem identificat les àrees curriculars implicades en les diferents experiències educatives descrites: literatura (18), llengua (13), matemàtiques (10), ciència (9), socials (6), tecnologia (2), sostenibilitat (1), geografia (1) i salut (1). Si ens fixem amb els articles que es centren en la narració teòrica dels fons de coneixement (un total de 20), els hem classificat en quatre eixos temàtics: justícia i canvi social, diàleg amb altres enfocaments teòrics, desenvolupament i característiques dels fons de coneixement i l'aplicació del concepte en qüestions educatives. I, les tres revisions de la literatura permeten comprendre el context i el llegat de l'aproximació dels fons de coneixement en les diferents dimensions analitzades per Hogg (2011), Rodríguez (2013) i Moll (2015).

Podem concloure que malgrat que han passat bastants anys des de les primeres aplicacions educatives dels fons de coneixement, s'han anat incorporant elements d'anàlisi que han anat enriquint el model, des d'una vessant teòrica i educativa. També, hem pogut conèixer alguns dels usos educatius i els nous col·lectius en els que cal fer front a les aules. Encara que el seu origen es situï a finals del segle XX, l'aproximació dels fons de coneixement serà un instrument útil en l'anomenada ensenyança cultural congruent -culture-based-teaching- (McIntyre, Kyle i Rightmyer, 2005), imprescindible en el segle XXI amb l'augment de la diversitat cultural a les aules.

STRATEGIES AND RESOURCES FOR CONTEXTUALIZING THE CURRICULUM BASED ON THE FUNDS OF KNOWLEDGE APPROACH.

A LITERATURE REVIEW (Article 2)

Títol: Strategies and resources for contextualizing the curriculum based on the funds of knowledge approach. A literature review

Autors: Mariona Llopart Rossell i Moisès Esteban-Guitart

Revista: The Australian Educational Researcher

Estat: Revisió

Factor d'impacte JCR: 0.696 (2015), Q3 EDUCATION & EDUCATIONAL RESEARCH

Resum:

La contextualització educativa és concebuda, a grans trets, com la vehiculació dels continguts curriculars (matemàtiques, ciències socials, ciències naturals, literatura,...) amb la vida dels alumnes. Aquest és l'objectiu principal d'aquest segon article. Volem il·lustrar la contextualització educativa mitjançant diferents experiències basades en l'aproximació dels fons de coneixement.

Realitzem la cerca a partir de la base de dades ERIC creuant els conceptes: "founds of knowledge" i "teaching methods"; obtenint 59 resultats. A partir d'aquí, escollim els articles que tenen com a objectiu la producció d'artefactes per part dels estudiants, amb els que els docents utilitzen per contextualitzar el currículum. El resultat final es tradueix en la identificació de 22 articles d'investigació.

La majoria d'articles exposen usos educatius a l'aproximació fons de coneixement a l'àrea de literatura (13 articles), seguit de l'àrea de ciències (4 articles), ciències socials (3 articles) i matemàtiques (2 articles). Si relacionem el nivell educatiu i el país on es desenvolupen, gran part dels estudis fan referència a experiències realitzades a Educació Primària a EUA, encara que hi ha experiències educatives a altres etapes educatives i a altres països com Austràlia, Canadà, Nova Zelanda i UK. Els recursos pedagògics utilitzats en les diferents experiències es poden agrupar en 3 categories: textos i produccions artístiques, fotografies i recursos digitals.

Totes les experiències analitzades tenen vinculacions entre el currículum escolar i els fons de coneixement, experiències i vivències dels estudiants i els seus estils de vida. Les experiències comparteixen el vehicle utilitzat per a promoure aquesta contextualització: artefactes produïts pels propis alumnes. Aquests tenen una doble funció: identificar/documentar els fons de coneixement i formes de vida dels estudiants (destreses, sabers i habilitats dels alumnes) i mediar/connectar els continguts curriculars amb les vivències i contextos de vida dels estudiants (recolzar les formes i recursos d'interacció pedagògica en situacions d'ensenyament-aprenentatge).

THE “STUDY GROUP” AS A CONTEXT FOR LEARNING. TEACHER EDUCATION FROM THE FUNDS OF KNOWLEDGE APPROACH (Article 3)

Títol: The “study group” as a context for learning. Teacher education from the funds of knowledge approach

Autors: Mariona Llopart Rossell i Moisès Esteban-Guitart

Revista: Journal of Teacher Education

Estat: Revisió

Factor d'impacte JCR: 2.754 (2015), Q1 EDUCATION & EDUCATIONAL RESEARCH

Resum:

Partim de la idea que en totes les famílies dels alumnes, més enllà de la seva condició ètnica, lingüística, religiosa i econòmica, i existeixen habilitats i sabers que han anat acumulant al llarg de la vida (González, Moll i Amanti, 2005). D'aquí neix l'objectiu general del present article: conèixer, dissenyar, implementar i avaluar els fons de coneixement detectats en les visites realitzades a diferents famílies d'origen immigrant d'una escola de la província de Girona, mitjançant la creació d'un grup d'estudi (format per 7 mestres de l'escola i 2 professors-investigadors universitaris). La recerca va tenir 3 objectius específics: I) Descriure els fons de coneixement identificats en les diferents famílies visitades per part dels docents que van participar en l'experiència; II) Il·lustrar les activitats educatives dissenyades a partir de la materialització educativa dels fons de coneixement detectats; i III) Descriure els aspectes positius, negatius i de millora de l'aproximació, segons l'experiència dels propis docents.

L'experiència educativa es desenvolupa durant el curs 2015-2016 i consta de quatre estadis: fase formativa, fase de treball de camp, fase de disseny i implementació i fase d'avaluació. Durant la *fase formativa* es van realitzar tres sessions de formació a tot el claustre de l'escola i a les mestres participants del projecte. A la *fase de treball de camp*, les mestres realitzen un total de cinc visites a cinc famílies d'origen immigrant escollides per l'equip docent. La *fase de disseny i implementació* va consistir en fer una posada en comú de les diferents visites a les llars familiars i desenvolupar tres

activitats educatives per a implementar a les aules. I, a la *fase d'avaluació*, es realitza una sessió col·lectiva de valoració de l'experiència al finalitzar el projecte.

Els resultats s'estructuren en tres seccions que corresponen amb els tres objectius específics descrits anteriorment. Pel que fa referència al primer objectiu específic, les mestres van elaborar un llistat comú (*fase de disseny i implementació*), en el marc del grup d'estudi, dels diferents fons de coneixement detectats en les diferents visites a les llars familiars. Van coincidir en el fet que molts dels fons de coneixement es repetien en diferents entrevistes entrevistades (com va ser en el cas d'habilitats vinculades a la jardineria o a la cuina i, l'afició pels jocs de taula o els esports). És, a partir d'aquesta posada en comú, on sorgeixen les activitats educatives que es descriuran a continuació. Si ens fixem amb el segon objectiu específic, es dissenyen i s'implementen 3 activitats educatives (*fase de disseny i implementació*): "la motxilla del futbolista", "el joc de cartes" i "els cacauets". Ens interessava establir i fomentar la connexió entre alguns dels fons de coneixement detectats i les activitats educatives dissenyades a partir de la seva capitalització pedagògica. I, tenint en compte el tercer objectiu específic, l'avaluació de l'impacte per part de les mestres participants de l'experiència en una sessió de valoració conjunta (*fase d'avaluació*) amb tot el grup d'estudi.

Volem destacar tres aportacions de la present recerca. Primer, la descripció del grup d'estudi desenvolupat, les visites realitzades i les activitats pedagògiques dissenyades i implementades en un context educatiu real. Segon, la consideració dels grups d'estudi com un context per a la formació docent. I, tercer, l'avaluació dels aspectes beneficiosos i de millora de l'aproximació dels fons de coneixement a partir de la millora de l'experiència i opinions dels docents després de participar en el investigació.

5. DISCUSSIÓ i CONCLUSIONS

L'objectiu general de la tesi, com s'ha exposat anteriorment, és entendre la **pràctica educativa** des de la perspectiva teòrica i metodològica que s'ha descrit a la introducció, subjacent als tres articles d'aquesta monografia: l'aproximació dels **fons de coneixement i d'identitat**.

Cal dir que per a nosaltres hi ha tres aspectes centrals d'aquesta perspectiva. En primer lloc, el biaix intencionalment positiu dels estudiants i famílies, més enllà de la seva condició i casuística lingüística, identitària, religiosa, econòmica, cultural. Les persones es pressuposen, s'afirmen i es reconeixen com a competents, com a participants actius de pràctiques socioculturals (educatives formals, comunitàries, familiars, digitals) a través de les quals construeixen les seves habilitats, sabers, xarxes socials i formes identitàries. Recursos, en segon lloc, que es converteixen en poderosos artefactes educatius susceptibles de ser vinculats al currículum i pràctica escolar quan els docents els capitalitzen: els identifiquen i utilitzen per ampliar i contextualitzar la seva pràctica pedagògica. Aquest és el sentit d'una pedagogia inclusiva, culturalment sensible, que parteix de la identificació empírica de les formes de vida dels estudiants. Estratègia especialment útil i rellevant en contextos de discontinuïtat educativa on els prejudicis, estereotipis, basats en el desconeixement i la desinformació, dificulten processos d'aprenentatge significatiu i d'aprofitament escolar. Finalment, els grups d'estudi, estesos com a una comunitat de pràctica, es converteixen en el context mediador idoni per portar a terme la preparació/realització de les visites (buscant la creació de noves relacions amb les famílies basades en la confiança mútua), l'anàlisi dels fons de coneixement, i la seva incorporació a la pràctica educativa escolar, aspecte que es tradueix en una transformació escolar cap escenaris educatius més inclusius, antiracistes i culturalment sensibles (Esteban-Guitart i Vila, 2013a; González, Moll i Amanti, 2005; McIntyre, Kyle i Rightmyer, 2005; McIntyre, Rosebery i González, 2001; Moll, 2014, 2015; Sugarman, 2010).

L'objectiu general s'aborda a partir de tres objectius específics que constitueixen les preguntes d'investigació que han guiat aquesta tesis doctoral.

En primer lloc, la pràctica educativa s'articula al voltant de la formació docent, així com la definició i desenvolupament del seu rol professional. En aquest sentit ens preguntàvem *quin hauria de ser el rol del docent?, Com hauria de ser la seva formació?*

La nostra resposta remet a dues afirmacions. La primera és que el rol del docent s'ha d'enriquir per incorporar el rol d'aprenent de les condicions i formes de vida dels seus alumnes, famílies i comunitats. La segona és que la formació docent s'hauria de basar en l'experiència en primera mà compartida en el marc d'una comunitat de pràctica, en el nostre cas els grups d'estudi que incorporen els mestres i professors-investigadors de la universitat per, de forma col·laborativa, transformar la pràctica educativa a partir de l'aproximació dels fons de coneixement. Anem per pams.

Del rol de facilitar d'aprenentatges, de transmissió, fins i tot, dels mateixos, pensem que s'ha d'incorporar al rol professional docent el *rol d'aprenent*: aprenent de les formes culturals de vida dels estudiants, les seves famílies i comunitats. Per tant, coneixedor de la realitat, les pràctiques significatives de vida, dels estudiants: les seves aficions i interessos, però també els seus sabers, habilitats, coneixements i competències familiars i comunitàries. Aquí hi ha un doble nivell d'anàlisi: la família (els seus fons de coneixement) i l'aprenent (els seus fons d'identitat). Aquest coneixement permet, com afirmen les mestres participants en el Projecte Camins, adequar l'actuació pedagògica i, a més, comprendre millor la conducta dels alumnes, la qual cosa es tradueix també en millorar els processos d'empatia en relació a ells. Per exemple, és molt diferent pensar que un alumne s'adorm a classe perquè és un gandul que, després de conèixer les seves circumstàncies personals de vida (l'alumne té cura del seu germà petit fins a altes hores de la nit), arribar a la conclusió que està cansat perquè no ha pogut dormir bé. Tot i que aquest nivell d'anàlisi no és estrictament pedagògic, curricular, si que pensem que ajuda a crear les condicions afectives i emocionals de relació favorables a l'aprenentatge.

En relació a com hauria de ser la formació docent, pensem que aquesta s'ha de basar en l'intercanvi d'experiències en el marc de l'ajuda mútua entre persones que

comparteixen una mateixa finalitat, en aquest cas millorar el rendiment i aprofitament escolar.

Els grups d'estudi es conceptualitzen com una "estructura medidora" (Moll, 2014, p. 117) que permet facilitar la vinculació entre l'anàlisi de les llars a través de les visites i el desenvolupament d'activitats escolars. De fet, tot comença en el marc dels grups d'estudi. Tant l'apropiació de l'aproximació dels fons de coneixement, com la realització de les visites, com el disseny de les activitats curriculars es projecten en el marc dels grups d'estudi. És en aquest escenari on es discuteixen articles, notes preses en les visites, les entrevistes realitzades, la literatura sobre l'aproximació i altres experiències portades a terme, s'intercanvien experiències i experteses, es treballen determinades tècniques o habilitats, per exemple el protocol i realització d'una entrevista en profunditat, i s'assaja com utilitzar educativament els recursos identificats en les famílies visitades (Moll, 2014).

De fet, l'adopció del rol d'aprenent que reclamàvem anteriorment també es promou en el context dels grups d'estudi. Des d'una perspectiva sociocultural, es concep l'aprenentatge com un procés actiu derivat de la transformació de la participació social en comunitats de pràctica (Barton i Tusting, 2005; Esteban-Guitart, 2016; Lave, 1993, 1996; Rogoff, 1994; Wenger, 1998). Una transformació que passa de perifèrica a nuclear, en la mesura que hom s'apropia dels continguts i motius d'aprenentatge; i que passa també per una transformació identitària (Lave i Wenger, 1991).

Des d'aquesta perspectiva la unitat i objecte canvia. L'aprenentatge o, pels nostres propòsits, formació docent, no es concep com un procés cognitiu de vinculació de coneixements nous amb previs, la unitat d'anàlisi ja no és l'individu en solitari, sinó la comunitat, una xarxa de relacions que fa possible l'intercanvi d'experiències i amb ella, la negociació de significats (Barab i Duffy, 2000). Allò rellevant ja no és el procés a partir del qual una persona desenvolupa una habilitat o coneixement, sinó més aviat es concep l'aprenentatge com un procés de pertinença i de desenvolupament d'identificacions (Lave, 1993, p. 65).

Per tant, el grup d'estudi és un context idoni, un entorn dialògic, que permet la implicació en activitats d'aprenentatge, l'explicitació de comprensions implícites, i la creació de coneixement compartit, en el nostre cas vinculats a una particular manera d'interpretar-comprendre l'escola, les famílies i les relacions escola-família, entre d'altres tòpics. De fet, un dels aspectes valorats en els participants en el Projecte Camins és, precisament, l'oportunitat de poder treballar col·laborativament amb l'ajuda i experiència d'altres companys/es, i en el marc d'un grup d'estudi.

En segon lloc, el segon objectiu específic, es refereix a la pràctica educativa en tant que conjunt d'activitats instruccionals i pedagògiques. *Com haurien aquestes de ser* constitueix la segona pregunta d'investigació. La resposta ens remet al segon article. Haurien de ser culturalment congruents (partint dels sabers i formes familiars i comunitàries d'experiència) i contextualitzades. Entenent per contextualització (o ensenyança en context), precisament, com "la integració dels conceptes acadèmics amb les experiències educatives, les llars dels estudiants i les seves comunitats" (Yamauchi, 2003, p. 382). Segons ho defineix Tharp (2006): "La connexió del currículum i la ensenyança amb les experiències i habilitats dels estudiants, les seves famílies i comunitats de referència" (p. 11). Segons ho resumeixen Wyatt, Yamauchi i Chapman-DeSousa (2014): "Segons el CREDE ("Center for Research on Education, Diversity, and Excellence")", la contextualització es materialitza en el seu nivell més alt quan el professor/a integra la nova activitat o informació amb allò que els estudiants ja saben i porten de sí per la seva formació prèvia a les seves llars, l'escola o la comunitat" (p. 69).

En definitiva, pensem que el que comparteixen aquestes definicions és una expansió del sentit tradicional d'experiència d'aprenentatge. Avui, més que mai i, degut en gran mesura a la connexió instantània i mòbil a Internet, l'escola ha deixat de ser l'escenari "exclusiu" d'aprenentatges acadèmics. La metàfora de la "nova ecologia de l'aprenentatge" (Coll, 2013) remet precisament al fet que aprenem al llarg de la vida i també a l'ample de la vida, és a dir, potencialment en qualsevol lloc i sota qualsevol circumstància.

Barron (2004, 2006), influïda per la perspectiva ecològica de Bronfenbrenner, proposa i defineix la noció d'ecologia de l'aprenentatge ("learning ecology") com un conjunt distribuït en xarxa d'activitats, contextos físics i virtuals que ofereixen oportunitats per l'aprenentatge: activitats, relacions i recursos que es troben dins i fora de l'escola.

El repte educatiu, per nosaltres, consisteix doncs en moure aquests aprenentatges, facilitar la seva connexió, la interpel·lació i creuament de les experiències d'aprenentatge que se susciten dins i fora de l'escola.

En aquest sentit pensem que la contribució fonamental del segon article de la monografia és il·lustrar diferents estratègies que permeten posar en relació, connectar, les experiències d'aprenentatge dins i fora del context escolar en diferents àrees curriculars (alfabetització, ciències naturals, matemàtiques i ciències socials). Per exemple, mitjançant el llibre il·lustrat *Mirror* en el cas de l'experiència descrita per Mantei i Kervin (2014), la utilització de la cultura popular dels estudiants en el cas de Hedges (2011) o mitjançant una caixa de sabates amb objectes significatius que permet posar en relació l'escola amb les formes de vida (objectes significatius en aquest cas) en el projecte "Home-School Knowledge Exchange Project" (Greenbough, Scanlan, Feiler, Johnson, Yee, Andrews, Price, Smithson i Hughes, 2005).

Pensem que allò que permet unificar aquests treballs, més enllà que il·lustren la noció de contextualització educativa, és la mobilitat d'aquests artefactes educatius que permeten vehicular el currículum i pràctica educativa escolar amb les identitats dels estudiants, és a dir, l'àmbit del sentit o allò que per l'aprenent és significatiu, coneix i aprecia (Esteban-Guitart i Moll, 2014b).

Finalment, en tercer lloc, ens proposàvem identificar *quins haurien de ser els agents implicats en l'acte educatiu escolar*, així com establir la manera de posar-los en relació. La resposta remet, en relació a tot allò dit fins ara, a l'escola, la família i la comunitat. De fet, en concret, l'aproximació dels fons de coneixement persegueix com a un dels seus objectius la millora de les relacions entre els docents i les famílies a través de la creació de noves relacions basades en la confiança mútua (González, Moll i Amanti, 2005). No obstant, aquí apareix una limitació de l'aproximació, almenys del treball

conduït en el Projecte Camins. Si bé és clara, i precisa, la relació entre l'escola i la família, no hi ha un treball de detecció de fortaleses o fons de coneixement de la comunitat dels estudiants. En aquest sentit seria necessari incorporar, en futurs treballs, nocions com la de "banc de memòria cultural" -"cultural memory banking"- (Handa i Tippins, 2012) entès com un instrument etnogràfic de comprensió de les pràctiques culturals rellevants, en el cas del treball de Handa i Tippins (2012), vinculats a la ciència en un poble coster rural de Filipines.

Per nosaltres la comunitat es pot entendre de tres maneres. Per una banda, pràctiques comunitàries com el cultiu d'una determinada planta local. Per altra banda, pot suposar el vincle amb una institució de la comunitat. És a dir, identificar fortaleses de la comunitat, per exemple un centre referent en l'anàlisi de l'aigua, o un determinat museu proper a l'escola, per establir lligams i crear actuacions educatives compartides com de fet es fa en les anomenades Escola Iman o molts dels projectes d'Aprenentatge-Servei. Finalment, la comunitat pot fer referència a aspectes transnacionals o de comunitat global: per exemple incorporar en el currículum els jocs olímpics de Brasil 2016, o altres fenòmens globals com la crisi econòmica d'inicis del segle XXI. En qualsevol cas, futurs treballs haurien d'incorporar amb un major èmfasis que en el Projecte Camins, centrat en l'anàlisi dels fons de coneixement de cinc famílies, les fortaleses, coneixements, sabers i temes comunitaris, ja siguin d'àmbit local i/o global.

CONTRIBUCIONS, LIMITACIONS I LÍNIES DE RECERCA FUTURES

Del conjunt dels tres treballs presentats en aquesta tesis ens agradaria destacar el que considerem que són tres contribucions a la literatura existent. En primer lloc, aquesta tesis permet avançar en l'anàlisi dels usos contemporanis de l'aproximació dels fons de coneixement en un doble nivell. En primer lloc, descrivint el conjunt d'alguns dels treballs existents produïts en els últims anys (Article 1). En segon lloc, explicant la relació de l'aproximació amb altres perspectives teòriques (Article 1), així com il·lustrant la seva articulació en la millora de la pràctica escolar (Article 2). En aquest sentit volem destacar aquí l'aparició, en els darrers anys, de treballs que obren

interessants vies de futur, i que es consideren en la primera revisió (Llopart i Esteban-Guitart, en vies de publicació), com l'aplicació de l'aproximació en el camp curricular de la geografia, de la salut, dels trastorns d'aprenentatge i/o desenvolupament, entre d'altres temes emergents. També, l'ampliació en el ventall d'agents susceptibles a identificar fons de coneixement, tradicionalment les famílies. Estudis recents, que s'han revisat en la primera i segona revisió efectuades, inclouen la identificació dels fons de coneixement a partir de l'alumne (utilitzant procediments que es revisen en la segona revisió com fotografies, llibres, o altres materials), o a partir dels avis/àvies, més enllà dels pares/mares. Finalment, a nivell de contingut, destaca la vinculació de l'aproximació amb nocions vinculades a la *justícia social*, per exemple els treballs anteriorment citats de Lew Zipin (2009, 2013) , a Austràlia, i Cammarota (2014), a USA (Subero, Vila i Esteban-Guitart, 2015); així com altres aproximacions teòriques (especialment fructífera és amb la teoria del capital cultural) i conceptes que emergeixen com la de "fons de coneixement dels docents" (Hedges, 2012), "fons obscurs de coneixement" (Zipin, 2009), fons de coneixement dels nens/es basats en els seus interessos (Hedges, Cullen i Jordan, 2011), o la noció ja presentada de fons d'identitat (Esteban-Guitart, 2012; Saubich i Esteban-Guitart, 2011).

En segon lloc, la tesis il·lustra sistemàticament el procediment d'aplicació de l'aproximació dels fons de coneixement (Article 3). Gran part dels treballs contemporanis inspirats sota aquesta perspectiva no realitzen ni les *visites* a les famílies (per exemple, Cammarota i Romero, 2014; Hedges i Cooper, 2016; Hedges, Cullen i Jordan, 2011; Zipin, 2013), ni els *grups de discussió* (Hufhes i Pollard, 2006; Moje i altres, 2004); que pensem que són dues parts consubstancials a la perspectiva original que s'haurien de respectar. Aquí el mèrit i rellevància del Projecte Camins que a través de les seves quatre fases il·lustra, d'una manera integral, tant la creació i funcionament dels grups d'estudi, com les visites realitzes i, a partir d'elles, les activitats educatives dissenyades i implementades.

Finalment i, seguint el treball de Jovés, Siqués i Esteban-Guitart (2015), es desenvolupa la tesis segons la qual els grups d'estudi són comunitats de pràctica en tant que contextos propicis per la formació docent.

Precisament d'aquesta darrera aportació es deriven el que considerem algunes línies d'investigació futures. Cal, per una banda, conèixer empíricament i en profunditat el contingut i dinàmica dels grups d'estudi. En aquest sentit, no existeixen estudis que documentin i analitzin els processos d'apropiació i de formació en el marc dels grups d'estudi. Per tant els processos de canvi identitari, adopció de nous rols, i transformació de prejudicis, estereotips i creences prèvies relatives a les famílies i estudiants d'origen estranger, així com creences sobre la pràctica educativa. Si que hi ha estudis que han analitzat l'impacte derivat de la realització de les *visites* (per exemple Esteban-Guitart i Vila, 2013b; Lin i Bates, 2010; Meyer i Mann, 2006; Whyte i Karabon, 2016; el tercer article inclòs en aquesta monografia), no obstant no s'explicita i analitza el procediment-dinàmica-significats construïts en el marc dels grups d'estudi. Tant l'anàlisi de contingut com del discurs serien útils i rellevants per conèixer els processos de transformació identitària i professional que potencialment es realitzen en aquest context considerat per nosaltres una comunitat de pràctica.

Per altra banda, tot i que existeixen evidències de la millora dels processos d'aprenentatge per part de l'alumnat que ha participat en unitats o activitats didàctiques basades en l'aproximació dels fons de coneixement (González, Moll i Amanti, 2005; McIntyre, Rosebery i González, 2001); falten estudis que demostrin l'impacte beneficiós en l'aprenentatge i rendiment escolar.

Una altra limitació, ja anunciada anteriorment i que es converteix també en línia d'investigació futura, és la incorporació d'anàlisis etnogràfics dels sabers, competències, fortaleces i pràctiques comunitàries. En algun dels sentits anteriorment anunciats.

Finalment, com a tercer potencial línia de recerca, s'haurien de dissenyar situacions educatives que incorporessin a més dels fons de coneixement de les famílies, els fons d'identitat dels estudiants. En aquest sentit només existeix una experiència al respecte (Jovés, Siqués i Esteban-Guitart, 2015) i, de fet, pot considerar-se una limitació del Projecte Camins i, per tant, de la tesis; donat que tot i que el marc de referència és

l'aproximació dels fons de coneixement i d'identitat no s'ha aplicat, en la seva profunditat, la noció de fons d'identitat.

El repte és que a la vegada que s'identifiquen els fons de coneixement s'hauria de treballar amb artefactes on els aprenents projectin les seves identitats i que a la vegada es converteixen en estratègies per visualitzar els seus particulars fons d'identitat. En condicions ideals, el creuament o coincidència dels fons de coneixement de la família amb els fons d'identitat de l'alumne/aprenent s'hauria de convertir en el motiu mediador de la situació d'ensenyança i aprenentatge (Esteban-Guitart, 2016). És a dir, si un fon de coneixement s'ha apropiat activament i és, a la vegada, un fon d'identitat, per exemple visitar la granja del pare (animals de granja, etc.), llavors aquest es pot vincular amb una activitat de ciències naturals al voltant de la distinció entre animals ovípars i vivípars, per exemple (Jovés, Siqués i Esteban-Guitart, 2015).

En definitiva, i a mode de conclusió, pensem que l'aproximació aquí descrita és un instrument heurístic per combatre polítiques d'injustícia des de la pràctica educativa. No és l'únic i existeixen, en aquest sentit, altres treballs també des d'una orientació sociocultural i que ens semblen especialment destacats (Lalueza, 2012; Lalueza, Sánchez-Busqués i Padrós, 2016).

Per a nosaltres, el principal benefici de l'aproximació aquí descrita rau en la voluntat de combatre qualsevol perspectiva del dèficit en educació a partir del teixit (la creació de continuïtats educatives) entre l'aprenent (fons d'identitat), els docents, les famílies (fons de coneixement) i la comunitat. Perspectiva que estimem necessària donat el caràcter holístic que té avui més que mai i per nosaltres la noció d'aprenentatge, doncs l'escola apareix com un important agent més, no l'únic, en els itineraris i riques trajectòries d'aprenentatge potencialment possibles i presents en les societats contemporànies: des dels entorns digitals, fins el grup d'iguals o pràctiques comunitàries diverses. Un repte cabdal ens remunta a l'origen de l'aproximació dels fons de coneixement, la noció de confiança mútua. Qualsevol política d'inclusió i cohesió social es basa, per nosaltres, en la necessària i subjacent confiança mútua entre els agents implicats. Pensem que l'aproximació dels fons de coneixement pot ser

un instrument per propiciar relacions de confiança mútua. No obstant cal incorporar en el paradigma altres agents i recursos més enllà de les famílies, essent com són enormement importants en tant que agent prioritari de socialització i potencialment d'aprenentatge.

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7. ANNEXES

ANNEX I.

Funds of Knowledge in 21st Century Societies: Inclusive educational practices for under-represented students. A literature review (Article 1)



Funds of knowledge in 21st century societies: inclusive educational practices for under-represented students. A literature review

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To cite this article: Mariona Llopart & Moisès Esteban-Guitart (2016): Funds of knowledge in 21st century societies: inclusive educational practices for under-represented students. A literature review, *Journal of Curriculum Studies*, DOI: [10.1080/00220272.2016.1247913](https://doi.org/10.1080/00220272.2016.1247913)

To link to this article: <http://dx.doi.org/10.1080/00220272.2016.1247913>



Published online: 21 Oct 2016.



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Funds of knowledge in 21st century societies: inclusive educational practices for under-represented students. A literature review

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ABSTRACT

Although the first educational applications of the *funds of knowledge* (FoK) concept were carried out in the late 1980s, there have been numerous developments and proposals since then, many of which have been made within the last few years. It continues to be, therefore, a valid, cutting-edge educational approach; one which seeks to overcome the lingering deficit perspective in education, by improving relationships between families and schools, and by designing culturally sensitive and contextualized curricular activities. In this review, we have identified 92 peer-reviewed publications relating to FoK in the ERIC database, dating from between 2011 and 2015. In this review, we aim to provide a summary of this literature and identify potential key trends, tensions, extensions and issues concerning current applications of the FoK approach. A number of contributions for teacher candidates and teacher professional development derived from the literature review are also suggested.

KEYWORDS

Funds of knowledge; teaching methods; teacher education; culturally relevant education

Introduction

The approach known as *funds of knowledge* (or FoK) originated in Tucson, Arizona, in the early 1980s. The project was aimed at countering what was described as *deficit thinking* in education; i.e. the idea that low school performance among underrepresented students was caused by underlying linguistic, economic and cultural limitations (González, Moll, & Amanti, 2005; Valencia, 2010).

The original authors of this approach, known as the 'Tucson academics' (Hogg, 2011, p. 669), put forward their ideas with the purpose of contributing to the educational reform of public schools that serve US–Mexican populations in the Southwestern United States (González et al., 2005; Vélez-Ibáñez & Greenberg, 1992).

This region has very strict immigration policies to the extent that, in 2000, a ban on bilingual education was approved in order to dismantle this form of instruction (Moll, 2005). More recently, in 2010, the State of Arizona Law SB 1070 was passed, according to which, undocumented immigrants are regarded as criminals; indeed, all those who by their appearance may be suspected immigrants, regardless of whether they are US citizens or legal or illegal immigrants, can be considered as suspected perpetrators of crimes. With this legal

and political protection, police can detain a person when they have 'reasonable suspicion' that he or she is undocumented in cities such as Tucson where about half of the population is of Hispanic or Latino origin.

In setting out the context of the FoK approach, Moll (2005) concludes that: 'it is impossible to ignore, then, that schooling practices are related to issues of power and racism in US society, especially as related to the working-class status of these families (...). It is in the context of this recognition that schooling practices are always intricately related to broader issues of social class, ideology, and power, that we must situate our study and understanding of funds of knowledge' (p. 276).

Hence, in order to challenge the deficit thinking prevalent in education and the racist policies that misunderstand the inherent complexities of migrant people, it was argued that the households of students of Mexican origin living in Tucson did, in fact, have at their disposal a wide variety of skills, knowledge and competencies forged in their working lives and community history (Moll, Amanti, Neff, & González, 1992). However, these intellectual and educational resources were essentially invisible in school practice and curricular structure due to asymmetric power relationships (Rodríguez, 2013). Therefore, school performance could be improved by having teachers visit the families of some of their students, identify their skills and knowledge and incorporate them into educational practice.

The idea involves an educational policy and concept which, by recognizing and legitimizing the lifestyles involved in the cultural practices of the students' families, is expected to create relationships of 'confianza' (mutual trust) between teachers and families in order to: (a) build bridges of cooperation that can diminish the prejudices and stereotypes between the two contexts of activity (Gonzalez & Moll, 2002) and (b) link school curricula and educational practice to the lifestyles of students (McIntyre, Rosebery, & González, 2001).

According to Moll (2014), the FoK approach includes three related elements: (1) *Research in households* – ethnographic visits – in which teachers, in collaboration with colleagues, visit some student's families at home for the purpose of uncover the cultural family resources or FoK and establish relations of trust between teachers and families; (2) *Classroom analysis*, or study of the new classroom practices developed by the teachers; and (3) *study group meetings* for discussion theory (FoK approach, ethnographic literature), methods and data collection, and findings in relation to the study of the households and classrooms (González et al., 2005). The study group is developed by teachers and researchers and it becomes a 'mediating structure' (Moll, 2014, p. 123) that connects the household analysis and classroom activities. It is in the study group that it begins preparing for the household visits and explore how household data can become resources for teaching.

A few years ago, in a review of the literature on the subject, Hogg (2011) proposed a clarification of the meaning of the FoK concept and identified a number of FoK developments and the extent of its application in the field of education. Specifically, what we propose to do here is to continue in this line by reviewing the literature between 2011 and 2015.

There are three objectives in this review. First, we shall describe the literature with regard to content, curricular subject, educational level and the countries in which these educational experiences were carried out. Second, with this information, we shall discuss some of the tensions, extensions, issues or developments of the approach. Finally, we also hope to be able to identify significant issues involved in improving teacher training for both trainee and professional teachers.

This article is divided into three main sections. First, we describe the original context and the original content of the educational uses of the FoK approach. Secondly, we explain the bibliographic analysis carried out, along with the conclusions reached from the aforementioned categories of analysis (first and second objectives of the review). Finally, in the discussion section, we link the existing literature we have reviewed with teacher candidates and teacher professional development (i.e. the third objective of the review).

The origin and early stages of the FoK approach

The FoK concept originated with the seminal works by Vélez-Ibáñez (1983) on US Mexican households and their social and economic systems of interchange. Vélez-Ibáñez, together with Greenberg, were the first to propose the notion of FoK, in the context of the study into the forms and strategies that allowed immigrant families to survive and further their personal development in the USA. They understood the term to mean the ‘specific strategic bodies of essential information that households need to maintain their well-being’. (Vélez-Ibáñez & Greenberg, 1992, p. 314). However, the definition of FoK most widely used in the literature (Hogg, 2011) is the one provided by Moll et al. (1992): ‘These historically-accumulated and culturally-developed bodies of knowledge and skills essential for household or individual functioning and well-being’ (p. 133).

The first study to explore the educational potential of the FoK approach was the ‘Community Literacy Project’, initiated in 1988 (González, 1995). The main goal of this project was to help teachers to design new forms of education based on the literacy practices and FoK of the documented households.

After this experience, a pilot FoK study was initiated in 1990–1991, with 10 teachers from 3 schools (González, 1995). The premise and the findings of the ‘Funds of Knowledge for Teaching Project’ was the same as in the ‘Community Literacy Project’ and in all the sister projects, such as the subsequent project BRIDGE (González, Andrade, Civil, & Moll, 2001), namely, that the educational process can be greatly enhanced when teachers learn about their students’ households and their everyday lives (González, 1995).

In other words, low-income Latino families and communities have linguistic and cultural resources that can be employed to support children’s learning in school. Teachers can strategically connect the curriculum to these rich, culturally based, out-of-school activities ranging from tasks involved in gardening and house construction to the commercial transactions taking place at ‘swap meets’ (González et al., 2005; McIntyre, Rosebery et al., 2001). For example, McIntyre, Swazy and Greer, (2001) described how two teachers made visits to the homes of their students in rural Kentucky to better understand their particular FoK. As a result of these visits, the two teachers designed a series of reading, writing and mathematics lessons around a major annual school event: the ‘Agricultural Field Day’. They connected the curriculum to students’ lives by uncovering the students’ and families’ extensive knowledge and abilities of farming (e.g. growth rates of various plants). In this example, the teachers used three strategies to contextualize the curriculum. First, the teachers designed instructional activities based on what students already knew from home, community and school (e.g. using books on agriculture that were very popular with the students). Second, these teachers assisted students in connecting and applying their knowledge to classroom activities (e.g. relating the knowledge on how their families cultivated plants to the life cycle of plants and, subsequently, to the life cycle of animals). Third, these teachers provided opportunities for

parents and community members to participate in classroom instructional activities (some parents volunteered to help with the agricultural field day).

It is important to note here that *culture* is understood to refer to socio-cultural practices, what people do (and the experiences associated with these practices), how people perceive what they do. Consequently, rather than assuming a static, homogeneous conception of *culture* (Japanese culture, corporate culture, and so on), it is assumed the hybridity nature of culture (González, 1995). In other words, the focus is not in shared culture rather families' practices and lives experiences. It is a processual approach that focus on the process of everyday life, in the form of daily activities, as a frame of reference. These daily activities are a manifestation of particular historically accumulated FoK that households possess. Instead of representations of an essentialized group (Islamic culture, Mexican culture), household practices are viewed as dynamic, emergent and interactional (González et al., 2005). Hence, the need to carry out an ethnographic analysis, i.e. to visit the homes of families in order to document their practices and life contexts through which each family's particular abilities, skills and knowledge emerge (González, 1995).

In addition, visiting the homes of the students meant breaking with the traditional balance of power in which the teacher, as the expert, informs the parents about their children's performance. Now, in contrast, families were thought of as intellectual resources, as competent people, whatever their social, linguistic, religious, economic or cultural diversity may be (Rodríguez, 2013).

The objective of the FoK approach is threefold: first, to improve the academic performance of those students considered underrepresented due to low income, racial/ethnic minority status, foreign origin, low fluency in English or being first-generation college students (Rios-Aguilar, Kiyama, Gravitt, & Moll, 2011); second, to improve relations between teachers and families by creating ties of 'confianza' (mutual trust) and third, to carry out curricular and instructional innovations by incorporating their FoK and their articulation within the curriculum and school practice.

From a socio-cultural perspective, the study groups formed by teachers and researchers are considered to be contexts of activity that are able to mediate the process whereby teachers *theorize* the households through home visits and then design school programmes accordingly (Moll, 2014). In this respect, teacher professional development is conceived as the result of participation in a community of practice – the study-groups – through which participants appropriate the terminology of the FoK, acquire the tools of methodological analysis (ethnography) and are given support in designing educational and curricular activity (Jovés, Siqués, & Esteban-Guitart, 2015).

The remaining sections of the paper proceed with such an analysis of the literature revision carried out to deepen our understanding of the current state of the FoK framework and in particular as contributions to teacher candidates and teacher professional development.

Description and critical analysis of the FoK literature 2011–2015

To conduct this review of the literature, searches were made using the *Educational Resources Information Centre* (ERIC) of the Institute of Educational Science, with the search term 'Funds of knowledge'. Since two comprehensive reviews of the literature have already covered the period before 2011 (Hogg, 2011; from 1988 to 2011 and Rodríguez, 2013, from 1992 to 2011),

it was decided to limit the search to the last five years. That is to say, our search, which was carried out on 12 October 2015 covered the period from 2011 to 2015.

Our first step was to codify the papers and articles according to their purpose and content, i.e. whether they focused mainly on: (1) discussing the term theoretically (*theoretical research-informed papers*), and (2) to document empirically how this approach has been used in educational interventions (*educational research-based papers*).

For those FoK-related articles coded as educational research-based papers, we took note of the curricular content (mathematics, science, language, technology, geography, etc.), the level of education to which the educational experiences were addressed and the context (i.e. the country) in which they took place.

The questions that guide this review are derived from the three objectives we mentioned earlier. First, in describing the literature, we aim to get an overview of the contexts, the education levels and curriculum areas of the educational experiences identified. These aspects also appear in the review by Hogg (2011), and we will therefore be able to compare our findings with Hogg's in the discussion. Secondly, we want to provide a critical analysis of the literature, in order to identify some of the innovations and limitations of these educational experiences, as well as the key issues emerging in contemporary applications of the FoK approach. Finally, we want to link the literature to teacher candidates and teacher professional development, something we hope to cover mainly in the discussion.

The 92 peer-reviewed articles identified as being related to the FoK approach were divided into two categories mentioned above: the majority, 74 in total, illustrated various educational applications (educational research-based papers) while the remaining 18 were concerned mainly with theoretical questions (theoretical research-informed papers). Consequently, we divided this section into two subsections to deal with these two categories. For each category, a description will be given along with examples of articles.

Description of educational applications and some noteworthy innovative contributions in the educational interventions carried out

The curricular subject most touched upon by the articles we reviewed was *literacy*, with 20 articles, followed by *second language acquisition* (generally English) and aspects related to multilingualism (14). Other areas included in the articles are mathematics (10), science (9), social studies and social justice (6) technology (2), sustainability (1), geography (1) and health (1). There are other works that focus on more cross-cutting issues such as evaluation (3), identity (2), developmental disabilities (2) and family ideologies (2) and transition to college among Latin American students (1).

The focus of the articles is fairly evenly spread across the educational levels with elementary education being most popular (with a total of 21 articles), followed closely by elementary secondary education (18), higher education, postsecondary education and adult education (18) and early childhood education or preschool education (17).

Finally, in relation to the countries in which these educational interventions based on FoK approach took place, the USA stands out with 43 articles, followed by Canada and England (7 each), Australia and New Zealand (5 each), Pacific Islands and Uganda (Africa) (2 each) and The Republic of the Philippines, Tanzania, Chile and Mexico (with 1 each). This gives a total of 75 references since one of the studies (Licon, 2013) was carried out in two countries, the US and Mexico.

Taken together, the focus of the articles range from illustrating educational work in specific curricular subjects (e.g. Ewing, 2012 who describes the educational use of FoK that incorporates the mathematical knowledge used by Torres Strait families in Australia in their traditional practices of sorting shells and giving fish) to teacher training (e.g. the study by Cremin, Mottram, Collins, Powell, & Drury, 2012 in which 18 teachers from 10 primary schools in 5 local authorities in England document the literacy lives of their students).

There are some noteworthy innovative contributions of this applied research that look at aspects that have not been covered previously by the Tucson academics (González et al., 2005) and have not been identified in the literature revision carried out by Hogg (2011), three of which we highlight below.

Firstly, while the original work involving FoK is almost exclusively concerned with the detection of parents' FoK for applications among school populations, we have found studies involving adult education (Larrotta & Serrano, 2012; Mosley & Zoch, 2012), children with developmental disabilities (Riojas-Cortez, 2011; Stone-MacDonald, 2012) and the detection of FoK of grandparents. In that regard, Ruby (2012) analyzed the strategies and skills used by Bangla-speaking grandmothers in order to preserve their linguistic and cultural identity in their grandchildren.

Secondly, at the curriculum level, other subjects that had previously been scarcely mentioned in the FoK literature revised by Hogg (2011) make an appearance, such as geography (Hinde, 2012), health (Zanoni, Rucinski, Flores, et al., 2011) or sustainability (Ward, 2013). In the case of geography, for instance, Hinde (2012) advocates using the FoK that children have in relation to geography (the world around them), providing examples of this in classes designed by K-2 and K-3 teachers. For example, in one of these, called *As the Kids Come and Go*, designed by Kathy Knowler for K-2, the class becomes a zoo and the children have to learn to create maps and write about them. The children work in groups of three and create mini-maps of the class which then become little books that can be read and used to orient themselves in space based on directions given by their classmates. These studies are good examples of how to open up ways to areas of the curriculum other than language, science and mathematics, which provide the focus of most of the FoK-based educational experiences.

A third important contribution to the Tucson academics literature (González et al., 2005) is the proposal to use material produced by the students themselves in order to detect their FoK and simultaneously link this material to the curriculum content and school activities. For example, *picture books* have been used to make connections between personal experiences, the school curriculum and the values and beliefs of families with students aged 9 and 10, using the picture book, *Mirror*, by Jeannie Baker. In this experience, the students, sometimes with the participation of their families, created illustrations and drawings, and compared their own situations and personal experiences with the contents and themes that appear in the book (Mantei & Kervin, 2014).

What theoretical questions have emerged regarding the FoK approach between 2011 and 2015?

The 18 articles in our review of the literature whose approach was more theoretical or conceptual in nature (theoretical research-informed papers) can be divided into three groups. Table 1 shows the specific topics (or concepts) associated with the articles in these groups.

Table 1. Thematic core of FoK-related articles with a theoretical-conceptual approach.

Critical issues	Specific topics and associated articles
Justice and social change	Epistemic justice (Gonzales, 2015); pedagogies of transformation (Wrigley et al., 2012); raising aspirations (McInerney & Smyth, 2014; Zipin et al., 2015); transforming expectations (Templeton, 2013); power and agency (Rodriguez, 2013)
Dialogue with other theoretical approaches	A Capital Approach (Hinton, 2015; Rios-Aguilar et al., 2011; Zipin, Sellar, & Hattam, 2012); third Space/ hybridity and practice theories (Carlone & Johnson, 2012); third space and figured world (Seiler, 2013); participatory learning theories (Hedges & Cullen, 2012); family literacy ecology of communities framework (Chao & Mantero, 2014)
Developments and particularities of the funds of knowledge notion	Funds of knowledge (literature review on the concept) (Hogg, 2011); funds of (difficult) knowledge (Becker, 2014); children's funds of knowledge based interests (Hedges et al., 2011); popular culture as funds of knowledge (Hedges, 2011; Petrone, 2013); teachers' funds of knowledge (Hedges, 2012)

Group 1. Justice and social change

In line with the initial spirit of the FoK approach, a number of authors underline its transformative nature; it is described as a 'pedagogy of transformation' (Wrigley, Lingard, & Thomson, 2012) that can be used to modify prejudices, stereotypes and expectations (Templeton, 2013); it can be used to recognize and legitimize different ways of knowing, interpreting and involving oneself with the world (Gonzales, 2015) and it can help to raise aspirations (McInerney & Smyth, 2014; Zipin, Sellar, Brennan, & Gale, 2015).

However, unlike early studies which focused on transforming the power relationships between teachers and families as well as transforming educational practices to make them more culturally congruent (Rodriguez, 2013), recent studies have incorporated the need to take account of difficulties arising from the conditions of individual families that may help teachers to understand, for example, that a student may be falling asleep in class because he has been caring for a younger sibling until late at night. In many FoK studies, researchers have limited themselves to creating a list of knowledge, skills and abilities susceptible to being incorporated into curriculum practice. However, others have strongly recommended getting to know the everyday living conditions of students in order to better understand their behaviour as well as the situation of their families, thus converting simple prejudices into judgments based on empirical knowledge (Templeton, 2013).

Another new notion is to consider FoK as a tool for 'raising aspirations'; 'emergent senses of future potential, grounded in lived cultures, which hold possibility for imagining and pursuing alternative futures' (Zipin et al., 2015, p 227). In this case, the students, along with teachers, co-construct the curriculum and document their own lives, as well as the problems around them, with the aim of promoting opportunities and positive expectations about the future. In this way, students are actively incorporated into the process and recognized as capable of documenting the FoK of their families and communities. This broadens the traditional approach in which responsibility for detecting funds knowledge rested solely on the teacher. However, meeting this aim and 'raising aspirations' requires institutional support and policies that can address the systemic causes of injustice and educational and socio-economic inequalities (McInerney & Smyth, 2014). This would bring about social transformation

at two levels: at the micro-levels of school communities and at the macro-levels of society and power structures (Rodríguez, 2013). It is our view, however, that while the FoK approach has provided powerful strategies for transforming the relationships between students, families and teachers, it can hardly lead to a transformation of society as a whole without political action at a much more macro level.

Group 2. Dialogue with other theoretical approaches

The main focus of the articles in this group is to create discussion and dialogue between the FoK approach and other approaches and theories. This is the case of the 'Community Cultural Wealth' model described by Tara J. Yosso (2005), which supports the idea that underrepresented students hold various forms of cultural 'capital'. Such capital is variously described as *aspirational* (dreams and aspirations), *social, linguistic, familial, navigational* (skills in navigating different social institutions) and *resistance* (the experiences of 'communities of color', for example, in the struggle for equal rights and collective freedom). Various authors have established relationships between the FoK approach and Yosso's model (Hinton, 2015; Rios-Aguilar et al., 2011; Rodríguez, 2013; Zipin et al., 2015). As we will reiterate and emphasize in the discussion, we believe that the dialogue between the two approaches enriches the notion of FoK by taking into account skills related to resistance, future aspirations and the transition between different social institutions (i.e. resistance, aspirational and navigational capital) – aspects that have not been incorporated into the traditional notion of FoK which is limited to what in Yosso's terminology, would be described as social, linguistic and familial capital (Yosso, 2005). In this sense, we do not agree with the criticism made by Hinton (2015) who considers that the metaphor of 'capital' is much too contaminated by the notion of 'financial capital' – a notion, he argues, 'which is premised on unequal exchange' and which marginalizes students according to social and cultural conditions. Yosso's approach (2005), like that of the FoK approach (Rios-Aguilar et al., 2011), reconceptualizes and broadens the idea of what capital can mean in different cultural communities and reclaims the term in a new perspective.

Another theoretical context related to the FoK approach is the theory of third space or hybridity (Carlone & Johnson, 2012; Seiler, 2013) which could be positioned in what Hedges and Cullen (2012) call 'participatory learning theories'. The most positive aspect of this relationship is that it allows us to emphasize the contingent nature of FoK. That is to say, in these theoretical frameworks there is an underlying dynamic view of culture as a social construction located and distributed in contexts of activity. This overcomes the more static and homogeneous notions that tend to produce prejudiced and stereotypical views of student behaviour based on the simple fact of their being part of a particular cultural group. It should be noted, however, that the relationship between such theories and the FoK approach had already been suggested by Moje et al. (2004).

What can be highlighted as innovative is the relationship, of great importance in our view, between the FoK approach and the 'family literacy ecology of communities' framework (Chao & Mantero, 2014). In this model, the proposed setting for intervention in a meaningful context for participating families (in this case, Latino and Asian immigrant parents learning English) is the Church. The Church is conceptualized – in the same way as discussion groups are considered (Moll, 2015) – as the 'social mediator for situating immigrant adult English learners within real-life communities, empowering their family literacy, accessing communities of

power, and having a voice in the larger society' (Chao & Mantero, 2014, p. 90). In traditional FoK literature, the prototypical contexts that are objects of analysis and intervention are the school, the home (through visits) and the settings in which the study groups or discussion groups are held (usually, the same school or college). For Chao and Mantero (2014), the contexts of analysis and intervention are opened up to include significant settings that are depositaries and creators of FoK, such as the Church. This seems to be a novel contribution to the existing literature, and raises important questions regarding the inclusion of other agents and institutional contexts that may help to strengthen the educational continuities between the school, families and community.

Group 3. Developments and particularities of the FoK notion

The third group brings together particularities in the FoK approach that lead the authors to emphasize certain aspects, such as popular culture and the students' interests, as a source of curriculum content and as resources that can be used to link the students to the curriculum. Petrone (2013) identifies three ways of understanding the concept of popular culture: (a) as a site of identity formation for youth; (b) as a context for literacy development and (c) as a vehicle for sociopolitical critique and action.

Hedges and her colleagues (Hedges, 2011; Hedges, Cullen, & Jordan, 2011) focus on how popular culture and the interests of students can be a vehicle for extending curriculum design and practice beyond the child-centred, play-based learning environment. In addition to play, the authors identify other interests and motives – shaped by interaction with adults (teachers, parents, grandparents, etc.) and peer groups (friends, siblings, cousins, etc.) and in the experiences of everyday life, such as cooking or rugby – all of which can be incorporated into educational practice. In another article (Hedges, 2012) included in this group, Hedges suggests that, in addition to taking into account the children's FoK (the social and everyday contexts of children that shape their motives and interests), we should also consider their teachers' FoK (their previous experiences, beliefs and understandings) which, in the end, are mediating the activity in the classroom. According to the author, the informal knowledge accumulated by teachers throughout their careers and learning experiences, i.e. their FoK, end up exerting greater influence on their decision-making processes in early childhood education, compared to their theoretical and more formal training. In our opinion, these works also enrich the FoK notion since they emphasize the FoK and interests that students construct in their everyday practices. Clearly, the detection and incorporation of the funds knowledge of a particular family and community, along with data on the interests of students and an account of the teachers' FoK could lead to a more integral and powerful analysis than one that only takes into account the families' FoK, or the student's centres of interest.

Finally, an important element in this group is the notion of 'Funds of (difficult) knowledge' used by Becker (2014). Becker supports her argument with the concept of *dark FoK* (Zipin, 2009) and the notion of *difficult knowledge* ('stories that disturb one's sense of cohesiveness') suggested by Britzman (2000, p. 43), among others authors. The author places the word 'difficult' in brackets 'in order to recognize the mutable, constructed and subjective nature of what is considered difficult'. Specifically, in her explanation of the term, Becker proposes 'the term *funds of (difficult) knowledge* to account for the emotionally difficult chapters of one's cultural heritage or migration story' (Becker, 2014, p. 19). Traditionally, the FoK literature has emphasized only the positive aspects, such as skills and abilities, derived from family

and community experiences. This has led researchers to underestimate the weight of difficult experiences in building what Zipin called *dark FoK*. Having said that, however, the idea of *funds of (difficult) knowledge* or *dark FoK* can feed into the deficit thinking associated with certain groups at risk of social exclusion. As we said earlier, one of the purposes of the FoK approach is precisely this battle against deficit thinking in education.

Discussion

Our main objective was to identify the current state of research connected with the FoK approach, which we did by reviewing articles dated between 2011 and 2015 in the ERIC database. Specifically, we aimed to describe the existing literature, provide a critical analysis of developments, themes and limitations as well as identifying aspects that need to be taken into account in teacher candidates and teacher professional development.

We identified and described two categories of work: conceptual works (18 theoretical research-informed papers) and educational applications (74 educational research-based papers).

One of our aims was to describe the educational uses of the approach in relation to education, curriculum area and country in which the investigation was carried out and, as in the review of Hogg (2011) which covered the period between 1988 and 2011, the commonest settings were found to be elementary schools in the USA with the focus being mainly on literacy development. This is not surprising given that the original purpose and context of FoK research concerned language and literacy in elementary schools in the USA. However, new scenarios have appeared that were not identified by Hogg (2011), such as such as Uganda (Africa), the Republic of the Philippines, Tanzania, Chile and Mexico. Furthermore, the approach has been extended to other areas of education such as adult education and to other curricular areas such as geography, sustainability, social studies/social justice, technology and health – none of which were present in the papers that Hogg reviewed.

With regard to any new contributions and extensions to the FoK approach, there are three things we would like to highlight from our review. The first is that there are a number of connections between the FoK approach and other theoretical frameworks, among which the Community Cultural Wealth model proposed by Yosso (2005) is an especially significant example. A total of five articles critically explore the relationship between these two approaches (Hinton, 2015; Rios-Aguilar et al., 2011; Rodriguez, 2013; Saathoff, 2015; Zipin et al., 2015). We agree with the idea put forward by Rios-Aguilar et al. (2011) that what they call *forms of capital* is a notion that is complementary and compatible with *FoK*. However, the authors focus on only two forms of capital: *social capital* (resources embedded in social networks: parental involvement, family–school relationships, and so on) and *cultural capital* (involvement in cultural activities, parental cultural capital, *habitus*, language practices and educational/occupational aspirations). As we mentioned previously, we believe that the dialogue between these two perspectives should be broader – along the lines of Yosso (2005), who rearticulates Bourdieu's notion of cultural capital towards a more inclusive notion that recognizes the cultural experiences of certain communities, in her case, 'communities of color'. In particular, *community cultural wealth* is defined as 'an array of knowledge, skills, abilities and contacts possessed and utilized by communities of colour to survive and resist macro and micro-forms of oppression' (Yosso, 2005, p. 77). The notion of *FoK* also refers to this set of knowledge and skills, though this is limited to a particular family unit rather than

including an entire group or community. We think this distinction remains important because considering ethnic or cultural communities as a whole can lead researchers to obscure the diversity of skills and knowledge that may exist in a supposed cultural group, as well as perpetuating certain stereotypes (i.e. 'this ethnic group has *this* cultural capital'). In this sense, maintaining the family unit as the unit of analysis seems more specific and consistent with the notion of culture – previously described (González, 1995; González et al., 2005) – that underpins the FoK approach.

Having said that, we believe that the literature reviewed shows that there is plenty of scope for a fruitful dialogue between the two models because it reveals a shared critical perspective aimed at social transformation in favour of inclusion and equality in education. We believe this dialogue can improve our understanding of the specific aspects that could be considered as repertoires of skills and knowledge that are susceptible to being incorporated into educational practice and which are gathered from analyses of underrepresented groups. That is, many of the skills, experience and knowledge that families possess are recognized (as FoK or what Yosso calls the *family, linguistic and social capital*) but we also need to recognize other components of these FoK such as *aspirations* (as developed by Zipin and collaborators), skills associated with *resistance* and what Yosso (2005) identifies as *navigational capital* in reference to the skills of students in manoeuvring between different socio-cultural institutions. These ideas offer promising avenues for further research in FoK approach.

It is precisely this *navigational capital* that brings us to the second aspect of our review that we wish to highlight, namely the extension of the FoK concept by incorporating and expanding on the experiences, trajectories and social networks of learners that go beyond their family FoK. Good examples of this include the notion of *Funds of (difficult) knowledge* (Becker, 2014) and the notion *children's FoK-based interests* developed by Hedges et al. (Cooper & Hedges, 2014; Hedges, 2011, 2012, 2015; Hedges & Cullen, 2012; Hedges et al., 2011).

The first, developed in relation to the notion of *dark FoK* (Zipin, 2009) and *difficult Knowledge* (Britzman, 2000), is notable for drawing attention to the difficult circumstances or experiences endured by migrants. However, it meets the challenge of upholding one of the basic principles of the FoK approach, which is that people, above and beyond their linguistic, economic and socio-cultural differences, are competent individuals and they possess skills and knowledge that are embedded in their cultural practices. This principle seeks to call into question the *deficit perspective* which tends to associate families of immigrant origin, for example, with economic difficulties, unstructured environments, alcohol abuse and other negative elements. Although the school, as Zipin et al. (2015) suggests, cannot ignore the difficult circumstances of people from vulnerable socio-economic backgrounds, we think this view is correct and that it enriches the FoK approach.

We also believe that the notion of *children's FoK-based interests* developed by Hedges et al., in the interesting educational context of Aotearoa/New Zealand, can be linked to the notion of *funds of identity* (Esteban-Guitart, 2012; Esteban-Guitart & Moll, 2014a, 2014b; Jovés et al., 2015; Saubich & Esteban-Guitart, 2011). However, the funds of identity concept is not restricted to play, popular culture or children's interests – although these are highly relevant aspects – but rather, focuses on aspects and activities that are geographical (spaces), social (people), cultural (artefacts) or institutional (locations) and that each of us incorporate into

the vision we have of ourselves and of what, for each one of us, is significant and important.

Both notions invite us to consider the learner as the core of the educational activity, along with his or her multiple spaces of relationships, ranging from family to peer group. Based on students' interests or their funds of identity, the curriculum can be linked to their experiences, their artefacts and the contexts of their lives. We believe this notion also enriches the original FoK concept which, to a certain extent, was limited to family FoK generated by family practices. However, as Moll and his colleagues acknowledge, the existing research on FoK has informed educators and researchers primarily about *adult* practices and their social worlds (Rios-Aguilar et al., 2011).

We have also long been aware that a funds of knowledge analysis, depending as it does on interviews with adults and participant observations in households, may inform us about adults and their social worlds but not necessarily about their children. We have often assumed, and it may be untenable, that what we learn from adults may inform us about children. (Moll, 2005, p. 279)

In our opinion, children/students create their own social worlds and FoK, which may be independent from the social life of the adults surrounding them. Both the *children's FoK-based interests* and their *funds of identity* allow us to take into account the children's social worlds, beyond the social life of the adults.

The third and final thing we would like to emphasize is the link between the FoK approach in general and social justice, which is apparent explicitly or implicitly in many of the works reviewed here and elsewhere (Rodríguez, 2013; Jovés et al., 2015). The FoK approach is linked to social transformation by the manner in which it understands the relationship between under-represented students and educational practice and culture. What underlies the various educational experiences reviewed here, whether in the realm of literacy (Cremin et al., 2012), mathematics (Aguirre, Zavala, & Katanyoutanant, 2012) or science (Licona, 2013), is how they explicitly recognize the life experiences of the students and their families and their way of life. And through this process of recognition and validation, school curricula can be adapted to these realities which are used as scaffolding material in the act of teaching and learning.

Finally, we decided to attempt to identify some of the significant contributions for teacher candidates and teacher professional development in the pedagogical context of educational inclusion and social justice.

We share the conclusion reached by Hogg (2011) who, in her review of the literature, said: 'FoK offers a conceptual framework for a key message for trainee teachers: first and foremost, know the learner. This message is compelling for teacher education programs with social justice aims' that are designed to help future teachers 'to work effectively in schools with increasing levels of student cultural diversity' (p. 674).

Knowing the learner is one of the teacher's central tasks according to this view – and this, in turn, means obtaining empirical knowledge of the contexts of their learners' lives, which in itself becomes a strategy for connecting with the territory and the community, a particularly sensitive aspect these days in which many teachers work in towns and areas they are unfamiliar with (Moll, 2015). The methodological innovations and strategies for doing this are, in our view, what differentiates the proposals described in this review from other perspectives (Shulman, 1986).

In this regard, in order to obtain this empirical information – a task which the pioneering authors of FoK situate in the field of ethnography (González et al., 2005) – teachers can

consider a number of different strategies or methodological resources, which in turn can become instruments or educational devices to connect students and their life contexts with the school curriculum. In our review of the literature, we identified several strategies that meet this aim: (a) *mentoring texts* (Newman, 2012); (b) *picture books* (Mantei & Kervin, 2014); (c) *student-generated photographs* (Coles-Ritchie, Monson, & Moses, 2015); (d) *digital media activities* (Gonsalves, 2014); (e) *cultural memory banking* (Handa & Tippins, 2012); (f) *e-readers* (Charbonneau-Gowdy, 2015); (g) *arts-based pedagogies* (Ward, 2013); (h) *family journals* (Rowe & Fain, 2013); (i) *photovoice* (Cook, 2014) or (j) *digital storytelling* (Pahl, 2011). Essentially, these consists of texts on which learners project their voices, their interests, experiences, knowledge and trajectories, and which teachers can use for educational purposes, as illustrated in the literature mentioned. For example, Mantei and Kervin (2014) illustrated the pedagogical usage of the picture book, *Mirror*, to make connections between personal experiences and school practice with students aged 9 and 10 as briefly described above. Students read *Mirror* independently, both individually and in pairs, and share interpretations of and personal connections to the protagonists of the history. After this first reading, students engaged independently with the picture book over one week, creating personal responses to something they related to in the text.

Moreover, this empirical knowledge of the reality of students is also the product and, at the same time, the result of establishing closer relationships with students and their families. This is a key element of the original FoK approach and is what underlines the teacher visits to the communities and homes of their students (Gonzalez & Moll, 2002). For this reason, the study group, as a learning community, is a perfectly positioned environment in which to develop and accompany teacher professional development (Jovés et al., 2015). However, this important part of the FoK approach goes unmentioned in many of the works reviewed here.

Conclusion

In short, although many years have now passed since the educational applications of the FoK approach were first put into practice (González, 1995; Vélez-Ibáñez & Greenberg, 1992), we can conclude that not only does the approach remain valid, but it has also incorporated elements of analysis that we believe enrich the original theoretical and educational model. In particular, our review illustrates some contemporary uses of and developments in the FoK approach, pointing out new groups or communities that can benefit from this approach (e.g. people with learning difficulties), new curricular areas (e.g. health, geography and sustainability) to which the FoK concept can be applied and new strategies for documenting FoK (e.g. through artefacts created by the learners themselves).

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

This work was supported by the "La Caixa" Foundation (RecerCaixa program, call 2013) and the Spanish Ministry of Science and Innovation [grant number EDU2009-08891].

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ANNEX II.

Strategies and resources for contextualizing the curriculum based on the funds of knowledge approach. A literature review (Article 2)

The Australian Educational Researcher

Strategies and resources for contextualizing the curriculum based on the funds of knowledge approach. A literature review

--Manuscript Draft--

Manuscript Number:	AERE-D-16-00085	
Full Title:	Strategies and resources for contextualizing the curriculum based on the funds of knowledge approach. A literature review	
Article Type:	Original Research	
Keywords:	Funds of knowledge; curriculum; contextualization; identity investment; identity texts; funds of identity	
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Funding Information:	Spanish Ministry of Science and Innovation (EDU2011-22945)	Not applicable
	La Caixa Foundation (RecerCaixa, call 2013)	Not applicable
Abstract:	<p>This article aims to describe and illustrate how the curriculum can be contextualized through different educational experiences based on the funds of knowledge approach. Educational contextualization is understood to be the linking of curricular content (literacy, science, mathematics, social sciences) with students' lives, including prior learning experiences from their homes and communities. The literature review began by surveying 59 articles retrieved from the ERIC database after entering the search terms "funds of knowledge" and "teaching methods". Out of these, 22 peer reviewed papers were selected based on the following criteria: the paper should illustrate how artifacts produced by students (photographs, texts, artistic productions, digital stories) can be put to pedagogical use by turning them into resources to mobilize knowledge and experiences inside and outside school. The results are discussed in light of the CREDE Standards for Effective Pedagogy, as well as the notion of funds of identity, which has been proposed recently within the context of the funds of knowledge approach.</p>	

**Strategies and resources for contextualizing the curriculum based on the funds of
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This work was supported by the <Spanish Ministry of Science and Innovation> under Grant <EDU2009-08891> and by the <La Caixa Foundation> under Grant <RecerCaixa program, call 2013>.

Strategies and resources for contextualizing the curriculum based on the funds of knowledge approach. A literature review

Abstract

This article aims to describe and illustrate how the curriculum can be contextualized through different educational experiences based on the funds of knowledge approach. Educational contextualization is understood to be the linking of curricular content (literacy, science, mathematics, social sciences) with students' lives, including prior learning experiences from their homes and communities. The literature review began by surveying 59 articles retrieved from the ERIC database after entering the search terms "funds of knowledge" and "teaching methods". Out of these, 22 peer reviewed papers were selected based on the following criteria: the paper should illustrate how artifacts produced by students (photographs, texts, artistic productions, digital stories) can be put to pedagogical use by turning them into resources to mobilize knowledge and experiences inside and outside school. The results are discussed in light of the CREDE Standards for Effective Pedagogy, as well as the notion of *funds of identity*, which has been proposed recently within the context of the *funds of knowledge* approach.

Keywords: Funds of knowledge, curriculum, contextualization, identity investment, identity texts, funds of identity.

The title of one of the *Standards for Effective Pedagogy* of the Center for Research, Education, Diversity, and Excellence (CREDE) is *contextualization*, which refers to the link with and articulation of the school curriculum (literacy, mathematics, science, and so on) with learners' previous knowledge, as well as with their informal learning experiences in home (family) and community contexts (CREDE 2011; Tharp et al. 2000).

The principle of contextualization could be defined as follows: "Learning is facilitated when the curriculum is connected to students' lives, including prior learning experiences from their homes and communities" (Author, 2016).

This principle can be crystallized into three corollaries: a) scientific and academic content should be integrated with other knowledge that the children assimilate in the home, school and community; b) learners need to be guided and supported so that they can make connections between their personal experiences and previous knowledge and the knowledge or concepts acquired at school; c) learners need to be helped to fully understand academic content through solid personal connections.

In this sense, teachers can foster such contextualization (connection) by linking school activities with topics or units already being worked on, by including members of the students' families or communities in the school's curricular and educational activities, or by using family artifacts (aspects of students' daily lives) during the teaching and learning process. Teachers should also encourage students to relate what they are doing at school with their personal and community experiences (CREDE 2011).

CREDE illustrates this principle through two examples which are available to view at their website (<http://manoa.hawaii.edu/coe/crede/videos/contextualization/>). In one of these, in the context of the Head Start program with children from 3 to 5 years' old, the teacher carries out a ramp building activity based on the children's experiences of ramps

from what they have seen in the school and their community. To facilitate the link, the teacher uses photos of ramps around the school. With a group of five boys and girls, the teacher encourages the children to express what they already know about ramps and to link together their different experiences with ramps, through an *instructional conversation* (another of CREDE's Standards for Effective Pedagogy).

In another example, a teacher at Hawai'i Public School uses students' family drawings as a visual support for explaining and helping students' acquire mathematical concepts (fractions and relationships). In this case, guided by the teacher, the children establish connections between fractions and their respective families and construct a mathematical problem together.

It is important to note here that, unlike Ausubel's notion of *meaningful learning*, the link is not limited to establishing substantial but not literal relations between new knowledge and previous knowledge (for example, the concept of energy is necessary in order to understand Einstein's theory of relativity) (Ausubel 1963), but rather between the curriculum and the students' lifestyles: their areas of interest as well as their previous experiences and daily life contexts.

In this sense, agreement seems to exist within learning sciences concerning the need to foster the use of students' personal, family and community resources (for example their specific language knowledge and skills) as scaffolds upon which educational activities at school can be expanded and supported (Banks et al. 2007; Ito et al. 2013).

On these lines, Haneda and Wells (2012) propose and illustrate four pedagogical principles which are especially suitable for improving the acquisition of second languages, particularly English. At least one of these principles can be directly linked to the notion of *contextualization*. The principles are: "creating multiple and varied opportunities for English language learners to use the target language in both speech

and writing, promoting high engagement by building on students' interests, connecting the curriculum to ELLs' lives and their funds of knowledge, and working toward a tangible goal" (Haneda and Wells 2012, 287).

One pedagogical strategy for fostering this contextualization of the curriculum is the use of artifacts made by the students in which they have invested and projected their knowledge, visions of themselves and their surroundings, as well as aspects of their life practices and contexts. Cummins (2007) refers to *identity investment* as pedagogical activity based on the recognition and affirmation of the learners' identities and sociocultural legacies. In the context of multiliteracy programs in Canada, for example, the educational use of "identity texts" has emerged; i.e. artifacts which may take the form of written text, visual, voice, musical or any multimode format, through which learners invest their identities in the product created (Cummins and Early, 2011).

Identity texts can be focused on subjects which are of particular significance for learners and relevant in the context of their previous experiences and daily lives. Examples could be a digital bilingual text about the history of migration, in the case of a foreign learner, or a documentary video about pollution or the economic, political or social conditions of the community where they live.

Ultimately, when used for educational purposes, these artifacts mean that students' identities and experiences can be recognized and positively affirmed through a product which can link school learning (for example English as a second language) with personal questions (the description of a family process of migration).

The principles of *contextualization*, *identity investment* and *identity texts* are posited as educational strategies and policies that seek equity and inclusion for all students, beyond their social, linguistic, religious and economic diversity, by recognizing and legitimating their lifestyles (Cummins and Early, 2011; Tharp et al. 2000).

Underlying the principle of *contextualization* we find the funds of knowledge approach that emerged in Tucson, Arizona, at the end of the 1980s, with a view to combating the deficit perspective according to which certain students suffer from limitations that prevent them from developing their school careers successfully, whether these be linguistic, family, economic, intellectual or cultural deficits (González, Moll, and Amanti 2005).

By contrast, the approach argues and illustrates that by simply going about their everyday lives and experiences, all people accumulate skills and know-how which are embedded in their cultural practices and which ensure personal and family well-being and development, regardless of their ethnic, family and community context. In particular, *funds of knowledge* are understood to be: “These historically-accumulated and culturally-developed bodies of knowledge and skills essential for household or individual functioning and well-being” (Moll et al. 1992, 133).

The educational challenge lies in incorporating these repertoires of know-how and skills into school practice in order to connect the curriculum with students’ lifestyles (McIntyre, Rosebery, and González, 2001).

In order to achieve this goal, teachers trained in ethnography, with the help of a *study group* understood as a learning community - a community of practice made up of other teachers and researchers – visit the homes of some of their students to identify and document these funds of knowledge in order to subsequently incorporate them into their educational practice (Author, 2015; Moll 2014, 2015).

This theoretical approach aims to highlight how contextualization can be used as an educational strategy to foster inclusive and equitable pedagogy (Author, 2015).

In view of the above, this article aims to illustrate the notions of contextualization and identity investment through recent educational experiences which have been developed

within the framework of the funds of knowledge approach. It is not our purpose to develop a critical review of the abundant literature on funds of knowledge, rather we shall focus on identify and describe strategies and resources to contextualize curriculum based on funds of knowledge approach.

Method

The ERIC database of the Institute of Education Sciences of the U.S. Department of Education was consulted in order to identify strategies in the literature on funds of knowledge that help to illustrate curricular contextualization. A search was carried out with the following terms: “funds of knowledge” AND “teaching methods” and peer reviewed journal articles were then selected. The search was carried out on 23 December 2015, obtaining 59 results.

Of the results found, we were interested in those that link contextualization in the way presented by Cummins (2007) as *identity investment* and *identity texts* (Cummins and Early 2011); i.e. the creation of artifacts by the students that are used by teachers for educational purposes to link the curriculum and school content with their students’ experiences, interests and lifestyles.

With this in mind, we discarded articles in which educational artifacts were designed by teachers or where the intervention focused exclusively on families or other educational agents. We therefore discarded experiences such as those presented by Larrotta and Gainer (2008), who illustrate the *After-School Parent Literacy Project*, in which immigrant mothers use texts to link reading comprehension with their funds of knowledge and personal life experiences. Some examples of texts used are *The House on Mango Street* by Sandra Cisneros and a chapter titled “The seven ways to fill an empty pocket” by Georges Clason. While studies like these provide interesting contributions to the literature, they are discarded here since, as mentioned above, our

focus is more concerned with the production of artifacts by students which are then used by teachers to contextualize the curriculum.

Results

The final result of the review carried out following the criteria described above led to the identification of 22 papers that are grouped in Table 1 according to their curricular area.

As shown in Table 1, most of the articles present educational uses of the funds of knowledge project in the area of literacy (a total of 13), followed by the area of sciences (with 4 papers), social sciences (with 3) and mathematics (with 2 papers).

In relation to the educational level and the country where the activity was carried out, most papers refer to experiences carried out in elementary education in the United States of America, although some educational experiences are described at other educational stages and in other countries, specifically in Australia, Canada, New Zealand and the UK (see table 1).

Table 1. Articles identified in the survey by curricular area

Curricular area	“Artifact produced”, educational level, country of the educational experience and biographical reference
Literacy	“mentor texts”, <i>elementary education</i> , Canada (Newman 2012); “picture book”, <i>elementary education</i> , Australia (Mantei and Kervin 2014); “new digital media”, <i>secondary education</i> , USA (Schwartz 2015); “popular culture”, <i>early childhood education</i> , New Zealand (Hedges 2011); “popular culture”, <i>elementary secondary education</i> , USA (Petroni 2013); “not just sunny days”, <i>middle school</i> , Canada (Wiltse 2015); “family journals”, <i>preschool education</i> , USA (Rowe and Fain 2013); “shoeboxes”, <i>elementary secondary education</i> , UK (Hughes and Greenhough 2006); “community scan”, <i>elementary education</i> , Canada (Smythe and Toohey 2009); “writings”, <i>elementary secondary education</i> , USA (Street 2005); “photographs and texts produced by students”, <i>middle school</i> , USA (Moje et al. 2004); “photographies”, <i>elementary education</i> , USA (Coles-Ritchie, Monson, and Moses 2015); “digital storytelling”, <i>primary education</i> , UK (Pauhl 2011).
Science	“figured worlds”, <i>middle school</i> , USA (Tan and Barton 2010); “LIFE curriculum”, <i>elementary education</i> , USA (Upadhyay

	2006); “digital media activities”, <i>postsecondary education</i> , Canada (Gonsalves 2014); “photovoice”, <i>postsecondary education</i> , USA (Cook 2014).
Mathematics	“real life objects and tools”, <i>elementary education</i> , USA (Cribbs and Linder 2013); “photographies”, <i>elementary education</i> , USA (Foote 2009).
Social sciences	“art resources”, <i>middle school</i> , Australia (Zipin 2009); “narrative identity”, <i>middle school</i> , Australia (Hattam and Prosser 2008); “art resources”, <i>early childhood education</i> , Australia (Ward 2013).

In relation to the strategies or pedagogical resources used in the different experiences to connect contents and curricular areas to students’ funds of knowledge and experiences, these can be grouped into three categories according to whether they take the form of texts and artistic productions, photographs and digital media. Some of the resources proposed in the literature reviewed are illustrated below.

Texts and artistic productions as a means of educational contextualization

Inspired by *The funds of knowledge for teaching project* (González 1995), Street (2005), an American teacher of elementary secondary education, designed a project called the *funds of knowledge writing project*, in which she basically gave students the opportunity to choose which subjects to write about. “In order to learn more about my students, their lives, their cultural resources and their families, my new writing curriculum was based solely around their areas of expertise, their funds of knowledge” (Street 2005, 23). For example, through these texts the teacher discovered that Juanita was afraid of being the first person in her family who was expected to go to university. And another student, Jesus, who hardly ever participated in class, revealed that his family was linked to the government of Guatemala. Even more interesting is the case in which a student explained the problems with the lift in the building where she lived. This text prompted other neighbors to write letters of complaint until, after 40 complaints had been sent out, the owners finally had the lift repaired. As the teacher explains: “By listening to the

stories of my students and their families, and recognizing and incorporating knowledge from my students' home lives, new patterns of dialogue emerged" (Street, 2005, p. 24). Like Street, Newman (2012, 25) also bases her practice on the premise that "all students have something to write about". Although, in this case, the point is to offer support through other reference texts: "All students can be guided and nurtured toward successful, personally satisfying writing experiences" (Newman 2012, 25). "Mentoring texts" thus emerge in this context as resources which help to guide the reading and writing process. For example, students can create what Newman calls "writing territories" to identify issues that can be found in texts, such as friendship, competition or growing up. In this way, students can use the "mentor text" to link specific issues with their own life stories, interests and experiences. The theme of "friendship" would thus be identified in a specific novel, which is used as a model, and students would then develop another story in which the theme of friendship is developed according to their own perspective and experiences. In this experience, students are encouraged to be the active agents of the learning process, becoming the authors of important themes identified in other authors' texts. Newman (2012, 30) concludes that: "When we validate their own words and stories, students thrive as writers and readers by using their funds of knowledge to locate themselves in the world of writing and to give us a glimpse into their life-worlds".

Another experience that uses texts, in this case picture books, is developed with students of 9 to 10 years' old in an Australian primary school (Mantei and Kervin, 2014). In the same way as "mentoring texts", picture books are used as a window for children to establish links with their personal, family and community experiences. Initially, the students read the picture book *Mirror* individually and in pairs before going on to share their interpretations and personal connections in response to questions such as: Tell me

something that you liked or disliked about the book. What drew your attention in particular? Is there anything that happens in the book that has happened to you? and other similar questions. They are also asked to choose the part of *Mirror* that they enjoyed the most and to show how it relates to their own life through artworks such as drawings, collages, etc. On the basis of these instructions, students establish an individual dialogue with *Mirror* for a week, in which they create personal responses to aspects linked to the text. The result is a text-to-self connection with *Mirror*. Finally, after 7-10 days, the researchers and students get together again to share the artistic texts and products made and to explore *Mirror* through questions such as: Explain the connections you have established. Has the book made you think about your own experiences?

One of the relevant aspects of this initiative is the incorporation of artistic productions made by students that make the link between the reference book and their life contexts visible insofar as the drawings and collages include members of their families as well as aspects of the students' popular culture.

It is precisely by identifying children's interest in popular culture (for example Sponge Bob, Ninja Turtles) that Hedges (2011) illustrates an experience carried out in Aotearoa/New Zealand based on an interest-based curriculum design. The author understands popular culture as part of the children's funds of knowledge as well as an instrument that teachers can use to carry out curricular activities in such a way that "Teachers might be encouraged to analyse children's interest in popular culture in a more meaningful way in order to engage with children's underlying inquiry into what characteristics and qualities make a well-rounded, contributing member of a family, community, culture and society. Teachers can use popular culture to develop children's funds of knowledge in the centre setting." (Hedges 2011, 28).

As in the project described by Mantei and Kervin (2014), other proposals identified use artifacts in order to link what happens in school with what happens outside it, especially in the home. This is the case, for example, with the *Home-school knowledge exchange Project* (Hughes and Greenhough 2006) implemented in four schools, two in Cardiff and two in Bristol (UK). Broadly speaking, it consisted of developing activities which support knowledge exchange (“mobilisation”) between the pupils’ school learning and out of school experiences. One of these activities, that aims to incorporate significant aspects of students’ lives outside school into school activities, is based on the educational use of a shoe box. In this case, teachers ask their students and their families to put important and meaningful things such as drawings, photographs, objects and magazines into a box and to then decorate it and make it personal to them. The teacher can then use these significant objects - Pokemon or Power Rangers cards, for example – to write texts about them or to introduce other curricular content depending on the students’ age, or to introduce colors (label the items in red, for instance) or literacy activities, such as choosing an item and describing it using adjectives or making sentences based on the significant objectives found in the box.

Another example of linking school practices and content with home experiences are “family journals” (Rowe and Fain, 2013). These are developed in the *Family Backpack Project* which aims to provide opportunities for reading and listening to recorded books and bilingual texts (English and the mother tongue: Arabic, Kurdish, Somali) in 249 low-income, prekindergarten children and their families in 13 public schools in the USA. Having been presented with the invitation to read and listen, the children and their families receive an invitation to respond with a drawing and a text about the books received. Their drawings and texts are elaborated with the help of a professional and they represent a family response. In these “family journals”, the students and their

families produce stories connecting aspects they have read and/or listened to with their lives, interests, concerns and realities, as well as responding to school-like comprehension tasks and practicing conventional writing routines.

In the case of the *Redesigning pedagogies in the North* (RPiN) Project (Hattam and Prosser 2008; Zipin, 2009) developed in Australia, the students became researchers of their own lives and communities and negotiated curricular units with their teachers. In this case, the teachers also help to incorporate cultural artifacts (from outside the school) in a formal educational context. “Teachers asked students to bring cultural artefacts from their lives outside school that carried rich identity resonances, and to talk/“teach” about their social-cultural meanings. Following this, class discussions encouraged students to name and analyse local lifeworld issues. Teachers took notes on what happened in the classroom and brought them to a RPiN roundtable for discussion in small groups of teachers and university researchers” (Zipin, 2009, 320).

Starting out from artistic creations such as poems, sculptures and videos, the students analyze and document aspects of their lives and communities; some of which are positive and some of which are linked to difficult situations, or what Zipin (2009) refers to as *dark funds of knowledge*, such as, for example, poverty, violence, alcohol, discrimination, or mental health problems. “Some (students) are actually quite worried about the community they live in; they see a high crime rate, they’re worried about drugs and alcohol; where other kids have a huge love for their community” (Zipin, 2009, 321). The pedagogical aim is therefore to help students face the problem of violence, for instance, as well as to offer them opportunities to seek solutions to such problems. As Zipin concludes (2009, p. 323): “Difficult lifeworld knowledge can indeed fund lifeworld-vitalised curricula to engage learners”.

Like this project developed in Australia, Smythe and Toohey (2009) illustrate the *community scan* process carried out by teachers and grade 4-5 English language learners, who investigated their socio-historical context in a state school located in a Canadian Punjabi-Sikh community. In order to map the community situation, sociodemographic information about the community was used, as well as specialized literature on Punjabi-Sikh immigration, local newspapers, student research on and representations of their community, and out-of-school multiliteracy activities. The students thus became researchers of their local communities like those in the RpiN project.

Photographs as a means of educational contextualization

Another resource documented is the use of photographs to link learning contexts and experiences. In particular, of the articles reviewed, three studies are explicitly focused on the use of photographs for educational purposes (Coles-Ritchie, Monson, and Moses 2015; Cook 2014; Foote 2009), although photographs do also appear in other experiences included in this review (Hughes and Greenhough 2006; Moje et al. 2004). In the case of Foote (2009), an in-depth analysis of students is illustrated on the basis of a Descriptive Review Process (DRP) carried out by a group of elementary school mathematics teachers in the United States of America. Photographs taken by the students were used to document funds of knowledge and sociocultural practices in the home and community, as well as to document student thinking in mathematics. Also using student-generated photography to draw on local knowledge, Coles-Ritchie, Monson, and Moses (2015) illustrate how teachers link the curriculum and school practices with students' dynamic local knowledge. A unique case of photographic usage is presented by Cook (2014), who uses the notion *photovoice* for students to connect to their local community through science while beginning to develop an inquiry project on

environmental sustainability. “Here, photovoice was essential for the bridging of students’ backgrounds and interests with the environmental science topics of importance to the community. As well, because photovoice enabled the students to communicate with those in a position of knowledge and in some cases control over the issue in a way that democratized the dialogue, it inspired a deepened sense of care and interest in the community of science.” (Cook 2014, 28).

The notion of *photovoice* was originally proposed by Wang and Burris (1997) in the field of health education and promotion in the context of the *Yunnan women’s reproductive health and development program* of the University of Michigan School of Public Health. Photography helped to communicate and contextualize the situation of the poor Chinese women in the province of Yunnan with low levels of education.

Photovoice is presented as a participative action research tool that uses photography to help the participants identify, represent and strengthen their community: to identify the needs or problems of a specific community, to foster critical reflection and knowledge about certain realities, as well as to communicate specific situations that need particular responses to political and public agents (Wang and Burris 1997). In Cook’s study (2014), this strategy is used in the context of a teaching unit on science in order to engage students in questions linked to sustainability and the environment.

Digital media as a means of educational contextualization

Finally, we would like to end this illustration of the current literature by referring to educational experiences in which the instrument used is a digital resource.

In this sense, Schwartz (2015) applies the funds of knowledge approach by using digital media tools in English classrooms in the US-Mexico borderlands region. In the context of Ms. Smith’s class, with a group of predominantly Latin American students in her high school writing class, she aims to energize the curriculum by mobilizing students’

interests and motivations, as well as by using different semiotic resources in and outside school to develop hybrid and multimodal texts. Different themes appear in the digital texts created by the students, including aspects of popular media, digital video games, Japanese Manga, cultural mythology, English literature, geography and biology, among others.

Another example of a digital resource used for educational purposes are “digital storytellings” (Pauhl 2011). According to Pauhl (2011), these are modes of representation that offer possibilities for expression and representation that are particularly relevant for those who might not access meaning-making in school so successfully. Both Schwartz and Pauhl recognize the processes involved in the students’ identity expression. “The process of making digital stories harnesses I/identities, including affect, emotion, and home funds of knowledge (identities), as well as “ways of acting, interacting, feeling, believing, valuing” (Identities)” (Pauhl 2011, 17).

Gonsalves’ (2014) work uses digital media to promote conversations about science in out-of-school-time (OST); a space usually reserved for talks about girls’ issues. The aim was to create a space, the ConvoClub, around science-related subjects that would generate positive emotional energy towards science among girls in a community centre in a low-income urban neighborhood of Montreal (Canada). The ConvoClub is a program held every Thursday evening at Cartier Community Centre under the umbrella of the larger Teen Program. The original aim of the project was to create a space where the girls could talk about subjects they were interested in, such as sexual health, healthy relationships, self-esteem and self-image. The conversations about science were introduced in 2011 and revolved around video productions, story writing and discussion-based activities about science topics of interest to young people. In particular, it started off with an activity that was to take up six of the 12 weeks destined

to the project. The main idea consisted in dealing with subjects of interest to the participants, such as, for example, domestic abuse, siblings' struggles with the criminal justice system, drugs and peer pressure, on the basis of digital storytellings.

Subsequently, a proposal was made to reorient the activities towards conversations related to science. Instead of starting out with scientific definitions, daily activities were identified and then related with science. Afterwards, a mini-documentary was created about what others in the community centre thought about science. The other young people in the centre were asked questions such as: "do you know that you do science every day?", or "what scientific question would you most like to know the answer to". On the basis of this experience, Gonsalves (2014, p. 198) identified interactions that illustrated the youth voice represented in funds of knowledge, what science meant for the participants, as well as the revelation that "cell phones are sacred objects" for the youths in the project.

Discussion

The aim of this article was to identify strategies and resources that can help to illustrate the notions of contextualization and identity investment in curricular development and implementation, on the basis of a literature review of the funds of knowledge approach. In all the experiences shown in Table 1 and illustrated in the results section above, links are made between the school curriculum (literacy, mathematics, science, social sciences) with funds of knowledge, and with students' experiences and lifestyles. The experiences share the medium used to promote such contextualization and to generate knowledge: artifacts produced by the students (texts, artistic productions, photographs, digital documents).

These artifacts have a dual function. On the one hand they enable funds of knowledge and student lifestyles to be identified and documented. In this sense, they serve to make

explicit specific areas of interest, previous knowledge, and skills or abilities, as well as to highlight students' know-how and specific knowledge. On the other hand, they also help to link curricular content with students' practices, experiences, and daily life contexts. In this sense, they exercise an educational function by supporting and extending different forms and resources of pedagogical interaction in school learning and teaching situations.

The ERIC database has been used to identify these experiences and resources. This does, however, represent something of a limitation to this review since some articles of particular interest did not appear on the database. For example, Cammarota's work (2007) which, in line with the RPiN project described above by Zipin et al., developed a proposal in favor of social justice in which students became researchers and developed contents related to sociopolitical issues that they then shared through public meetings with other students, teachers, families and members of the community (Cammarota and Romero 2014).

Other studies linked to the notion of *funds of identity* are also missing (Author, 2011, 2012, 2014a, 2014b, 2016). This concept, proposed recently in the framework of the funds of knowledge approach, emphasizes geographical (spaces), cultural (artifacts), social (people), and institutional (places) aspects, as well as activities, which are inscribed and expressed through the learners' views about themselves, and that which they find meaningful and important. The *identity texts* (Cummins and Early 2011) referred to in the introduction to this article are used to pinpoint funds of identity that may or may not be consonant with the funds of knowledge available in students' homes and families: in particular, graphic representations (meaningful circles, identity drawings) that elicit narratives in which students represent that which defines them, that

which is important or meaningful for them, and things that they like (Author, 2014a, 2015).

Nevertheless, the review carried out contributes towards the existing literature on both *funds of knowledge* and *educational contextualization* by reviewing and presenting different strategies that teachers can use to link their teaching practice and the school curriculum with their students' lifestyles. This is particularly relevant when the distance between the school culture and students' family and community culture is greater due to lack of knowledge about their funds of knowledge and the local practices carried out within their communities.

In this sense, pedagogical notions and practices such as *culturally relevant teaching* (Ladson-Billings 1992), *culturally responsible teaching* (Gay 2000) and *culture-based teaching* (McIntyre, Kyle, and Rightmyer 2005) have been suggested with a view to recognizing and legitimating the lifestyles and practices of students who are under-represented in the school context. Although certain nuances exist between these different terms, all of them agree that teachers need to establish bridges between students' lives and the school context. The resources identified and illustrated here allow students' backgrounds, knowledge, skills, and experiences to be used for pedagogical purposes, thereby epitomizing and demonstrating one of CREDE's standards for effective pedagogy: the principle of contextualization.

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ANNEX III.

The “study group” as a context for learning. Teacher education from the funds of knowledge approach (Article 3)



Teacher education based on the funds of knowledge approach: the 'study group' as a context for learning

Journal:	<i>Journal of Teacher Education</i>
Manuscript ID	Draft
Manuscript Type:	Research/Empirical
Keywords:	At-Risk Schools/Students, Diversity, Ethnography, Qualitative Research
Additional keywords:	Funds of knowledge, Home visits
Abstract:	<p>At the heart of the funds of knowledge approach is the study group in which teachers, in collaboration with researchers, visited their students' families at home for the purpose of learning from their experience and designing classroom activities that incorporate these intellectual and cultural resources previously uncovered. In this sense, we consider the study group to be a particular learning context (an example of a community of practice) for teacher education. We illustrate this thesis by describing an experience in which the funds of knowledge approach was implemented in a public school located in Catalonia (Spain). The study group consisted of nine participants (five teachers, the head teacher, the head of studies and two research professors from the local university). We describe all the processes involved in the four phases of implementation: training, ethnographic visits, designing school activities and assessing the experience.</p>



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3 **Teacher education based on the funds of knowledge approach: the ‘study group’ as a**
4 **context for learning**
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8 **Abstract**
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10 At the heart of the funds of knowledge approach is the study group in which teachers, in
11 collaboration with researchers, visited their students’ families at home for the purpose of
12 learning from their experience and designing classroom activities that incorporate these
13 intellectual and cultural resources previously uncovered. In this sense, we consider the study
14 group to be a particular learning context (an example of a *community of practice*) for teacher
15 education. We illustrate this thesis by describing an experience in which the funds of
16 knowledge approach was implemented in a public school located in Catalonia (Spain). The
17 study group consisted of nine participants (five teachers, the head teacher, the head of studies
18 and two research professors from the local university). We describe all the processes
19 involved in the four phases of implementation: training, ethnographic visits, designing school
20 activities and assessing the experience.
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28 **Keywords:** At-risk schools/students; Diversity; Ethnography; Qualitative Research; Funds of
29 knowledge; Home visits.
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3 In recent years, there have been a wide range of publications and literature reviews evaluating
4 and describing the current state of the funds of knowledge approach and how it is put into
5 practice (Civil, 2016; González, Wyman & O'Connor, 2011; Hogg, 2011; Authors, in press;
6 Moll, 2014, 2015; Rodriguez, 2013; Authors, 2015, 2016; Turner, E. & Drake, 2016; Verdin,
7 Godwin & Capobianco, 2016).
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13 By 'funds of knowledge' we refer to the "*historically-accumulated and culturally-developed*
14 *bodies of knowledge and skills essential for household or individual functioning and well-*
15 *being.*" (Moll, Amanti, Neff & Gonzalez, 1992, p. 133). The notion emerged in the 1980s
16 with the aim of analyzing the relationships of reciprocity and the systems of exchange
17 between families of Mexican origin in Tucson, Arizona (USA). In response to the social and
18 political circumstances arising from immigration, these families developed a number of
19 different strategic bodies of knowledge and skills that enabled them to ensure their welfare
20 and the development of their households (Velez-Ibanez & Greenberg, 1992). In 1986, Luis
21 Moll left the University of California in San Diego to join the University of Arizona which
22 led to the emergence of the "Community Literacy Project" (CLP) in 1988:
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31 "The idea was as follows: to replicate the three-part design implemented in
32 San Diego – the home observations, the after-school study group, and the
33 classroom work – but to base the household observations on the Tucson
34 findings of Vélez-Ibáñez and Greenberg regarding funds of knowledge. We
35 called the study the Community Literacy Project (CLP). The central thrust
36 of the work was to document the funds of knowledge and literacy practices
37 of the homes we studied and observe the teaching of literacy in selected
38 classrooms while helping teachers use our household data to generate new
39 forms of literacy instruction in their classrooms" (Moll, González &
40 Amanti, 2005, p. 5).
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44 The CLP Project laid the groundwork for the subsequent "Funds of Knowledge for Teaching
45 Project" (Gonzalez, 1995) which began in the 1990s and which involved, among others,
46 Vélez-Ibáñez, Greenberg, Moll, González, Amanti, Sandoval-Taylor and Andrade (González,
47 Moll & Amanti, 2005).
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52 This approach aimed to overcome the deficit thinking, prevalent in education at the time,
53 which supposed that families of immigrant origin were lacking in intellectual, social and
54 cultural resources, and that this hindered their development and performance in school. In
55 stark contrast, the CLP Project began with the premise that *all* families, regardless of their
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3 ethnic, linguistic, economic or religious status, possessed funds of knowledge and skills
4 rooted in their particular practices and experiences of life, such as those garnered from their
5 own working lives, for example (González, Moll & Amanti, 2005). The pedagogical
6 challenge was to incorporate these resources into the school curriculum and into teaching
7 practice. To do so, teachers visited the homes of some of their students with the purpose of
8 documenting their funds of knowledge while also establishing relationships of trust with the
9 families, recognizing them as intellectual resources. Accepting and recognizing the students'
10 families and communities fostered culturally-appropriate teaching processes that allowed
11 teachers to contextualize the school curriculum and teaching practice and to incorporate the
12 meaningful experiences, contexts and ways of life of the learners (McIntyre Kyle &
13 Rightmyer, 2005; McIntyre, Rosebery & González, 2001).

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23 “The idea is two-fold. One is to help teachers develop a representation of
24 families and students based on a first-hand documentation of their lived
25 experiences and knowledge [...] the second idea is for teachers to
26 “appropriate” or take possession of the funds of knowledge and other
27 resources that exist in local households and communities to shape a
28 pedagogy that both connects to students’ experiences and engages them
29 academically”
30 (Moll, 2015, p. 114-115).

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33 However, the teachers were not left alone or unassisted in this work: “Central to our work has
34 been the development of teacher *study groups*” [our italics] (Moll, 2015, p. 115).

35 36 37 38 **The study group as a context for teacher training**

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42 These study groups, consisting of teachers and University researchers, are conceived as a
43 ‘*mediating structure*’ (Moll, 2014, p. 117) which monitors the process of linking the analysis
44 of students’ homes (via ethnographic visits) with the development of school activities that
45 capitalize on the funds of knowledge detected. Thus, the appropriation of the funds of
46 knowledge approach, the actual process of conducting visits to households and the design of
47 curricular activities is not carried out by the teacher directly but through the mediation of a
48 community of practice: the teacher’s “study group”.

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55 According to Moll (2014), the main elements of these study groups involve (a) colleagues
56 with whom to discuss the pertinent academic papers, the notes taken during visits, the
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3 interviews carried out and other documents; (b) the literature on the funds of knowledge
4 approach and on experiences already carried out elsewhere that can guide and serve as an
5 example; (c) the analysis carried out in classrooms; d) the knowledge of other people whose
6 experience can facilitate the development and implementation of the program; (e) training
7 courses to facilitate the development of certain skills, such as carrying out an in-depth
8 interview and (f) the educational use of the resources found in the students' communities and
9 homes.
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16 Moll also identifies a total of fifteen artifacts and activities related to the study groups such
17 as, for example, notes based on home visits, interviews with family members, academic
18 articles on culture and education, presentation and discussion of the visits, planning a
19 particular school activity, discussion of ethical issues, presentations by researchers from the
20 university or by other teachers with relevant experience, methodological resources, the
21 discussion of the limitations encountered when implementing the program, or questioning the
22 stereotypes concerning the family and the community analyzed (Moll, 2014, p. 147).
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30 In our opinion, this kind of study group can be considered to be a *community of practice* and,
31 in this sense, a learning context in which teachers transform their professional identity as they
32 gradually incorporate a common language with regard to school practice and the relationships
33 between school, family and community (Authors, 2015). The very notion of funds of
34 knowledge, for example, is a theoretical artifact that the teacher incorporates through his or
35 her participation in a given study group.
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42 In this sense, from a sociocultural perspective, human learning and identity development is
43 conceived as the result of an active process of social participation in *communities of practice*
44 (Barton & Tusting, 2005; Lave, 1996; Rogoff, 1994; Wenger, 1998). By 'community of
45 practice' we mean a group of people who share a particular meaningful objective or path,
46 such as the same profession, similar interests or activities. It is within this process, in which
47 the members of the group share and exchange their experiences. Gradually, their professional
48 identity, for example, is transformed, as they acquire certain codes and practices; and their
49 participation in the community is also transformed with increasing experience, from an
50 initially peripheral participation towards a more central participation (Lave & Wenger, 1991).
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3 The unit of analysis in this perspective is also transformed: the focus shifts from the learner,
4 in isolation, towards the community as an integrated teaching and learning context (Barab &
5 Duffy, 2000; Rogoff, 1994). What is relevant is no longer the analysis of the process during
6 which a person develops a skill or knowledge by forming cognitive links between new
7 information and previous information; instead, the emphasis is on the concept that developing
8 an identity as a member of a community and becoming knowledgeably skillful are “part of
9 the same process, with the former motivating, shaping, and giving meaning to the latter,
10 which it subsumes” (Lave, 1993, p. 65). Through a community of practice, the participants
11 interpret, reflect and share meaning. In other words, the community becomes a dialogic
12 environment that fosters involvement in learning activities aimed at explicating implicit
13 understandings and creating shared knowledge (Wenger, 1998).
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23 In the context of the funds of knowledge approach, the study group can be seen as a
24 community of practice whose focus is on creating new relationships with families based on
25 mutual trust and on transforming school practice by incorporating previously detected funds
26 of knowledge (Authors, 2015).
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31 However, despite being considered a central element of the funds of knowledge approach
32 (González, Moll & Amanti, 2005; Moll, 2014) – along with visits to students’ homes and
33 communities – these study groups are absent or given little importance in much of the
34 contemporary research into the subject (Authors, in press). In addition, there is a scarcity of
35 empirical knowledge about the effects of the approach (benefits, limitations or areas for
36 improvement) based on the experiences and assessments of teachers themselves. The few
37 existing studies that have documented some of the effects of implementing the funds of
38 knowledge approach are described below.
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46 **Strengths and weaknesses of the Funds of knowledge approach from the point of view** 47 **of teachers** 48

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51 All the literature we have reviewed agrees on one point in particular: for many of the teachers
52 participating in funds-of-knowledge based programs, one of the most beneficial aspects of the
53 approach is the transformation of the relationship between school and family (teachers and
54 parents) (Authors, 2013; Lin & Bates, 2010; Meyer & Mann, 2006; Whyte & Karabon,
55 2016). After visits to their students’ homes, they believe much closer relationships are created
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3 with the families which results in improved communication with parents (Meyer & Mann,
4 2006). In addition, they gain a more positive insight into these families as they come to
5 understand more fully the historical and cultural conditions of their students lives (Lin &
6 Bates, 2010).
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11 Another aspect that is considered positive is how the approach leads to a deeper
12 understanding of the learner, thus facilitating the teacher-learner relationship and fostering a
13 better understanding of school performance and the appropriateness of educational activities
14 (Authors, 2013; Meyer & Mann, 2006).
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19 Some teachers also praise the benefits of transforming teaching practices towards more
20 inclusive and culturally-congruent learning environments (Authors, 2013; Lin & Bates,
21 2010).
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26 However, a number of limitations or difficulties have also been noted when putting the
27 program into practice. One problem is that the traditional roles associated with teaching are
28 difficult to lay aside and this makes it difficult to take on new roles such as “learner” and to
29 accept new ways of thinking and interacting with families and of designing educational
30 activities (Whyte & Karabon, 2016). In addition, it takes time to implement the program
31 (training, conducting visits) and, in the context of the class, it is not always easy to generalize
32 the funds of knowledge, nor is it easy to choose which ones should be used to develop the
33 academic content (Authors, 2013).
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41 There are not, however, a great number of studies documenting what teachers who are
42 experienced in the funds of knowledge approach really think about its benefits and
43 limitations, which is something we think would provide useful insight into the effectiveness
44 of this approach. In the same way, as we said earlier, there are few studies that systematically
45 document all the phases and processes involved in implementing the approach. A recent
46 review of the literature shows that despite adopting the funds of knowledge as an approach, a
47 number of studies and educational experiences have not involved study groups and in some
48 cases, not even the ethnographic visits to students’ homes (Authors, in press).
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Objectives

The overall objective of the research described here was to design, implement and evaluate what we think are the fundamental aspects, described above, of the funds of knowledge approach, namely, the creation of a study group, home visits to a number of students, and the creation of educational activities based on the funds of knowledge detected. Thus, the three specific research objectives were:

- a) to describe the funds of knowledge identified among the various families visited by teachers who participated in the experience;
- b) to describe the educational activities that were designed by making educational use of the funds of knowledge detected.
- c) to describe, based on the experience of the teachers themselves, the beneficial aspects of the approach, as well as the negative aspects and areas for improvement.

Method

Participants

The participants in the program included five teachers, the head of studies and the head teacher of a public school in the Province of Girona (northern Catalonia, Spain) along with two research professors from the University of Girona. So the study group consisted of 9 people. The teachers were all from Catalonia and they all freely decided to participate in the program.

The school is located in a lower-middle class suburb of a town in northern Catalonia (Spain) which, in 2016 had a population of about 20,000 inhabitants of whom about 5,000 were people who originated from abroad. The service sector in the town accounts for 60% of the local economy with particular emphasis on cultural, sporting and leisure activities.

The school was established in February, 2012 and during the academic year in which the funds of knowledge experience was implemented there was a total of 159 students in pre-school and the first two years of primary education with 12 teachers (seven pre-school teachers and two primary school teachers, one English language teacher and one music

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3 teacher). 30.15% of the students were of immigrant origin, mostly from African countries and
4 China. Specifically, 61.6% of the families at the school were from Catalonia, 16.9% (27
5 families) from Morocco, 10% (16 families) from Gambia, 4.4% from China, 2.5% from Mali
6 (2.5%), 1.2% from Algeria and one family from each of the following countries: Senegal,
7 Guinea, Romania, Russia and Honduras.
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13 One of the features of the school is that its program is based on contextualized learning
14 environments. That is to say, classroom spaces are dedicated to the development of different
15 academic skills and are named after significant people or places from the community. For
16 example, there are learning environments/rooms called the DARDER (a scientific space in
17 honor of a famous doctor and veterinarian, Francesc Darder i Llimona, who had close ties to
18 the town), the FARGA (for artistic expression and mathematics named after a district of the
19 city) or the ATENEU (for language, linked to a cultural space run by the local municipal
20 council). Students visit the Darder museum, the Farga neighborhood and the Ateneu cultural
21 centre at the beginning of the year.
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30 The school decided to incorporate the theories and methods of the funds of knowledge
31 approach during the 2015-16 academic year.
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34 **Procedure**

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37 The educational experience was carried out in 4 phases: a) training, b) field work, i.e. home
38 visits, c) design and implementation of educational activities, and d) evaluation.
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43 The first session of the training phase was held on the 19th of February, 2016, with all of the
44 school's teaching staff in order to explain and discuss the funds of knowledge approach. Two
45 further sessions took place (on the 4th and 29th of March) with those teachers who agreed to
46 participate, which included the head of studies, the head teacher and 5 other teachers. The
47 second training session was devoted to reading about and discussing other experiences based
48 on the funds of knowledge approach (González, Moll & Amanti, 2005; McIntyre, Rosebery
49 & Gonzalez, 2001). The third training session dealt with methodological issues (ethnography,
50 interviews, multi-method autobiographical approaches) to prepare the teachers for their visits
51 to families. All the sessions took place in the school and each lasted about 2 hours.
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(Insert Figure 1 about here)

The second phase, which involved the fieldwork, consisted of a total of five visits made to five different families chosen by the teaching staff. Teams of two teachers interviewed families on the 5th, 6th and 12th of April at their homes, except for one family who were interviewed in their workplace, a shop which they owned. All the families participated voluntarily and signed an informed consent form authorizing the publication of photographs, videos and information obtained during the visits in teaching and research journals.

The third phase, involving the design and implementation of educational activities, began on May 6th, when the study group discussed the educational uses of funds of knowledge detected. Three educational activities proposals were made and these were implemented during the months of May and June. The implementation of these activities was accompanied by follow-up sessions on the 24th and 27th of May and the 2nd of June, also in the context of the study group.

Finally, on June 29th, a collective session to assess and evaluate the experience was held. The aim was to respond collectively to the following question: With regard to the experience carried out, what aspects of the funds of knowledge approach were positive and beneficial, or negative and open to improvement? In addition, throughout the month of May, the participating teachers kept diaries in which they reflected on their experience in the program, and also completed a brief pre- and post-test survey (on March 4th and May 6th, respectively), of their beliefs concerning the immigrant families. In this article, we focus on the results of the collective evaluation session in keeping with the specific third objective we mentioned previously.

Results

We have divided the results into three sections corresponding to the three specific objectives described earlier. First, we describe the visits to the 5 families chosen by the teachers; second, we describe the educational activities that were designed and implemented as a result of these visits and, finally, we analyze the benefits and limitations of the experience according to the participating teachers.

The funds of knowledge documented through home visits

A total of five families were chosen for home visits. The study group considered that intervention was not necessary in the case of families whose relationship with the school was already one of mutual trust, understanding and reciprocation, nor was it necessary for families whose children were having no difficulties in their schoolwork. In contrast, for children who *were* having difficulties, it was thought that the funds of knowledge approach may be of use. Hence, the criteria established for choosing each family were as follows:

- a) the family had a child at the school who was having certain problems or difficulties in terms of school performance and,
- b) the family did not have a particularly close relationship with teachers or the school.

Here we describe briefly the five visits, with emphasis on the funds of knowledge of each family that the teachers identified.

The first visit took place on April 5, 2016 and involved a family of African origin. At the time of the interview, the father of the family had been living in the country for 10 years and the mother for seven. As in all of the home visits, two teachers from the school participated, in this case interviewing both the father, originally from Mali, and the mother who was from Gambia. The household had four members, father, mother and two children: a girl and a boy. A number of different funds of knowledge were detected ranging from gardening (in connection with the father's occupation), gastronomy (the mother was keen on cooking, including foods that were new to her), sports (particularly football) and multilingual skills, since five languages were used in the family home: Sarahule (or *Soninke*), Mandinka, French, Catalan and Castilian.

A second visit was made on the same day to another family, again with both father and mother present, both of whom were originally from Mali. At the time of the interview, the father had already spent 27 years in Spain and the mother 8 years. They had two sons and a daughter living with them in Catalonia and two older daughters who were living in Mali. Although at the time of the interview, the mother did not work and the father was unemployed, the teachers identified funds of knowledge related to their command of various languages (Bamanankan and Castilian among others), agriculture (they managed a small plot

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3 of land with products originating from Mali), the regional music of Mali and gastronomy (the
4 mother described dishes made with peanut butter).
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8 The third visit, on April 6, 2016, involved a Sarahule-speaking mother from Gambia. In this
9 case, the father had been in Catalonia for 4 years while the mother had only joined him a year
10 previously. They had two children: a daughter and a son. The father was a factory worker
11 while the mother was the homemaker. The funds of knowledge that teachers identified in this
12 case included cooking and sports, as well as an activity that involved the whole family:
13 playing cards.
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23 The fourth visit, on April 12, involved a mother, father and son who all came from China.
24 The father had been in Catalunya for eight years and the mother six. The couple had two
25 children. The family had a shop in the city and the father also worked in a slaughterhouse.
26 The funds of knowledge detected by the teachers included mathematics (playing with the
27 abacus, arithmetic games, and the math involved in the family business) and food, especially
28 dishes based on rice, the typical fruits from their home country and peanut butter.
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34 Finally, the fifth family, also visited on April 12, were originally from Morocco and the two
35 teachers from the school interviewed the mother, an aunt and two cousins of the child who
36 was attending the school. The immediate family consisted of the father, the mother and two
37 children, and the mother had been in the city for 11 years and her husband 8 years. The
38 father was out of work and the mother worked in a meat processing factory. In this case, the
39 funds of knowledge identified included gastronomy, sports and board games.
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49 In short, in the study groups, the teachers made a list of the different funds of knowledge that
50 they had detected during the visits to the different families. It was agreed that many of these
51 funds of knowledge were the same and were likely to be present in other families, or at least
52 in the households surveyed. They included for example, the various language skills, or the
53 skills relating to gardening, cooking, and hobbies such as sports or board games (see Table
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3 1). It was, in fact, from the identification of three of these funds of knowledge that the
4 educational activities described below emerged.
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7 8 **The educational activities designed** 9

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11 Using the funds of knowledge detected, three educational activities were designed and
12 implemented: the “footballer’s backpack,” the “card game” and “peanuts”.
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16 The “footballer’s backpack” activity was employed with pre-school children aged 3 to 4 and
17 was aimed at working on vocabulary, pronunciation, and the structure of sentences in
18 communication. The topic was football, one of the funds of knowledge detected in two of the
19 families interviewed. The educational activity consisted of putting football related objects
20 inside a backpack: football boots, shorts, the local team’s football shirt and a football, among
21 other things. In the first and second session, the backpack was presented and the children
22 were encouraged to speculate on what might be inside. Once opened, the students each took
23 out one of the objects and had to explain what it was, what it was for and describe its color,
24 shape and the material it was made of. The aim was to encourage conversation among the
25 children and to get them to express their knowledge and their personal experiences. In the
26 third session, the objects and their uses were recalled from the previous sessions and the
27 children role-played as football players and made use of the material that was in the
28 backpack. In the fourth and fifth session, relatives of the children took part in order to talk to
29 them about the sport and learn more.
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41 The “card game” activity was also designed for and used with pre-school children aged 3 and
42 4. In this case, however, the activity was not performed in the classroom but in the
43 schoolyard (see Figure 3). The teaching objective included understanding the rules of a card
44 game, waiting for one’s turn in the game, maintaining attention during the game, training
45 visual perception and finding the similarities and differences between the cards. The idea of
46 using cards also arose from two of the home visits. In the game – which is similar to “Snap!”
47 – the cards are dealt out among all the children who place them face down in front of them.
48 Players take turns to turn over the top card from their pile so that all the other players can see
49 it. This continues until one player reveals a letter that matches a letter of another player, at
50 which point they must say “Battle!” The player who has the same letter but didn’t cry
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3 “Battle!” first has to take all the upturned cards. The object of the game is to get rid of all
4 your cards.
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8 (Insert Figure 3 about here)
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11 Finally, the third educational activity was for children aged 5 and 6, and focused on
12 “peanuts”. The initial motivation also arose from two of the visits, in particular during one in
13 which the mother offered the teachers a dish of rice with peanuts. The idea of mixing rice
14 with peanuts came as a surprise to the teachers, as it did to some of the other children in class,
15 and for this reason it was decided to look at the various uses of peanuts. The son of another of
16 the participating families, for example, explained that his family’s store sold peanuts, and
17 described the uses that he knew of such food. Indeed, due to the interest in the dish in school,
18 the family brought it to the end-of-term school party (scenes from this party can be seen in
19 the following link: <https://vimeo.com/170315395>). Before this end-of-term party, the children
20 learnt about the plant by planting peanuts and seeing the whole process of plant growth. This
21 process was documented using various languages present in the classroom (Catalan,
22 Castilian, English, French, Lithuanian, Arabic, Sarahule and Portuguese), which allowed the
23 children to work on vocabulary in different languages with the help of the families. In
24 addition, following the growth process of the plant facilitated classes associated with the
25 natural environment.
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29 Beyond the detail in the procedures of the various activities, what we want to emphasize is
30 the connection between some of the funds of knowledge detected and the educational
31 activities designed from the pedagogical capitalization of these funds, i.e. their use in the
32 school context for educational purposes. For example, how the topic of peanuts enabled
33 classes to work on vocabulary in different languages and familiarize the children with the
34 biological process of plant growth.
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37 38 39 40 41 42 43 44 45 46 47 48 49 50 **The impact of the project**

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53 The opinions of the participating teachers on the impact of the experience were gathered in a
54 collective brainstorming session, in the study group, designed to obtain a negotiated and
55 shared opinion on the blackboard as they listed the positive aspects and benefits of the funds
56 of knowledge approach, as well as identifying problem areas and proposals for improvement.
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3 The session took place on June 26, and involved all five participating teachers, the head of
4 studies, the head teacher of the school and the two research professors from the University.
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8 In total 10 positive aspects or benefits were identified, of which three were particularly
9 highlighted by the teachers.
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13 First and foremost was the improvement in family-school relationships. In this sense, the
14 visits became a means of generating positive expectations and relationships based on mutual
15 trust. According to one of the teachers, *“The relationship with the student and the family has
16 changed enormously. The family is more open, more trusting. I get the feeling that the mother
17 now has a Catalan person she can speak to and that this is very important to her. She is very
18 grateful regarding the visit we made. For example, she invited me for a walk and has said she
19 would like to cook something for me and walk with me. This week, she has also asked me to
20 schedule an interview at the end of course to talk about her child. She said that she wanted to
21 cook something Moroccan for us and that she would bring it in on Monday, to thank us for
22 all we’ve done for her, her family and her son. In general, she now comes more often to
23 school. And when the father comes, he greets me, smiles and says goodbye – which he never
24 used to do.”* In the same vein, another of the teachers says: *“Personally, after the interview, I
25 very much appreciate the confidence with which the mother talks to me now; really,
26 everything has changed in this regard. During the week of Sant Jordi, for example, she came
27 to speak in Sarahule to the whole class and her son was very proud; she also attends Catalan
28 classes now.”* Finally, another example in this same vein: *“What stood out for me as a
29 teacher is the awareness I now have regarding the importance of willingness, of confidence
30 and of the quality of the relationship with the family. This determines the rest. It was not,
31 perhaps, the best visit or interview; the place, the conditions were not exactly ideal, but
32 confidence has increased in both directions. I’ve learned not to close myself off, to be more
33 willing to learn more about, and let others know about, the school.”*
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50 The second aspect most strongly identified as very positive was the understanding, gained
51 from their knowledge of the family context, of the behavior and attitudes of the sons and
52 daughters they have in class as students. For example, one of the teachers says of one of her
53 students: *“He has opened up a lot; we talk often and he comes looking for me to tell me
54 things; he’s okay with little hugs and kisses now. He’s still shy and reserved but not as much
55 as before. As well as that, I understand his way of doing things much more now.”* Another
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3 teacher was even more explicit: *“The main change is in the tutorials: being aware of the*
4 *child’s role within the family, recognizing the relationships he has, helps to understand his*
5 *needs and behavior. It is not a change in the teacher’s attitude but a change in perspective.*
6 *It’s an exercise in empathy.”* Another teacher says *“We could also understand the problems*
7 *with the younger son. The mother was pregnant and the older brother was the only one who*
8 *knew, the mother spoke very little with the younger son; only the older child [in the class of*
9 *six-year-olds] was praised. The younger child [in pre-school five-year-old class] was also*
10 *somewhat restless at home and this also tired out the family. What we saw, felt and perceived*
11 *during the visit made us understand the brothers’ relationship, and their attitude.”*

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20 In third place, the teachers also very positively highlighted the way different teachers were
21 able to work together with the support of the leadership team and the research professors of
22 the University. As one teacher put it, *“The work of a teacher is often very lonely, with each*
23 *teacher dealing with the teaching unit, with their children, and that’s it. Creating this*
24 *community, this group, with other staff, and with the help of colleagues from the university,*
25 *offers support and makes all the work much easier. That is an aspect of the program I would*
26 *emphasize and which I value very positively.”*

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33 There were other positive aspects mentioned to a lesser extent, many of which were related to
34 the three aspects we have just described. These included the modification of prejudices and
35 beliefs relating to the families of foreign origin; the change in the students’ attitude after
36 visits to their family homes; better school performance from these children; a greater
37 knowledge of the different cultures of the families at the school; knowledge of the families’
38 educational expectations; the support of a program that allows for a new direction in
39 educational practice and the strengthening of the educational community.

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46 The problematic aspects identified in the study group included the amount of time invested in
47 getting familiarized with and implementing the funds of knowledge approach, as well as the
48 difficulty of getting to know the cultural codes implicit among the different families present
49 in the school and the difficulty of accessing the experiences of the families in a way that did
50 not upset the balance of power between teachers and the families. The proposals for
51 improvement in this regard, recommended by the study group, included giving some of the
52 work back to the families, incorporating all the staff at the school in the program, carrying
53 out further training in advance before conducting interviews, and supporting other staff via
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3 tutorials by passing on the information and activities derived from the implementation of the
4 funds of knowledge approach. This should be designed to enable continuity in the work
5 during the following years and educational levels. As one of the participating teachers said,
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8 *“The visits give you an understanding that helps you a lot in your professional practice, in*
9 *understanding the student and adjusting your attitude and how you help. This should not be*
10 *forgotten when the child moves onto the next year, or changes teacher, tutor, or cycle. To do*
11 *this, we need to pass on the information about the home visits and about the activities that*
12 *were carried out with the child during the year.”*
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18 Discussion

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21 The overall objective of the work described here was to design, implement and evaluate what
22 we believe constitutes the essential elements of the funds of knowledge approach, i.e., the
23 creation of a study group formed by teachers and university research professors, carrying out
24 visits to the homes of some of the students selected based on specific criteria, and creating
25 educational activities from some of the funds of knowledge identified in the visits. This
26 objective is justified by the fact that, as shown in a recent review of the literature (Authors, in
27 press), there are a large number of studies that are based on or inspired by the funds of
28 knowledge approach but which nevertheless do not actually include home visits or else do
29 not set up study groups. Hence, in the existing literature, there are few studies that
30 systematically describe the three processes that we believe are necessary to put the funds of
31 knowledge perspective into effect.
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41 In this sense, we would highlight three particular contributions of this study. First, the
42 description given of the study group, the visits carried out and the educational activities
43 designed and implemented in a real educational context. Second, the consideration of the
44 study groups as a context for teacher training, which we will stress below. And third, the
45 assessment of the beneficial aspects and the suggestions for improving the funds of
46 knowledge approach based on the experience and insights of teachers after participating in
47 the program.
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54 With regard to the first contribution, we proposed two specific objectives. One was to
55 describe the funds of knowledge detected among the different families visited. We detected
56 multiple funds knowledge, as other studies have done (González, Moll & Amanti, 2005;
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3 McIntyre, Rosebery & Gonzalez, 2001; Moll, Amanti, Neff & Gonzalez, 1992), among
4 families of foreign origin, mainly African, who at the time of the study lived in Catalonia,
5 Spain. Of these, what stood out were multilingual skills and competencies linked to
6 gardening and agriculture, music, mathematics, gastronomy, sports or board games. The
7 teachers in this study did not identify, on this occasion, funds of knowledge linked to religion
8 or the use of Henna, for example, which were detected in other families of African origin
9 resident in Catalonia in other studies (Authors, 2011; Authors, 2012; Authors, 2012). One of
10 the conclusions we can draw from this, in relation to the theoretical model of the funds of
11 knowledge approach, is the need to adopt a more procedural approach to culture – understood
12 as the particular practices in the lives of the families – which should be empirically
13 documented. That is, the family’s culture and their funds of knowledge are not to be
14 conceptualized as homogeneous entities that are part of all the families of the same national
15 or regional group. On the contrary, they are a mix of cultures and experiences associated with
16 these practices which are constantly changing depending on the conditions and circumstances
17 of the families’ lives (Gonzalez, 1995; Moll, 2011). The second objective was to describe the
18 educational activities designed by teachers as part of the study group that was established at
19 the outset. The three educational activities (football backpack, the card game and the activity
20 focusing on peanuts) were designed and implemented through the use, for educational
21 purposes, of some of the funds of knowledge identified. This meant significant and current
22 activities from the lives of some of the families interviewed could be capitalized by teachers
23 to provide structure for educational goals such as learning specific vocabulary (football
24 backpack) or understanding the process involved in plant growth (peanuts). Rather than the
25 detail involved in the educational activities, what interests us here is to illustrate the link
26 between the funds of knowledge identified and the creation of specific educational activities
27 from those funds.
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46 The second contribution of this study, takes us to the central thesis of this article, i.e., the
47 proposal to use study groups as contexts for teacher training. In this sense, we believe that
48 within the funds of knowledge approach, the study group is an example of a *community of*
49 *practice* (Barton & Tusting, 2005; Authors, 2015; Lave, 1996; Rogoff, 1994; Wenger, 1998)
50 from which teachers acquire skills related to the conceptualization of school practice, the
51 families and their relationship with the school, conducting interviews, etc. From this
52 perspective, learning – and teacher training – is conceptualized as the result of participation
53 in a community of practice (in this case, the study group); a community which transforms the
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3 participation itself and, to a certain extent, even the identity of the participants as they acquire
4 or appropriate the specific language of the group, such as, in this case, the notion of funds of
5 knowledge. What we mean by this is that the teachers incorporate the role of “anthropologist”
6 or “ethnographer” into their traditional role of teacher. This process of transforming identities
7 and professional practices through participation in study groups has not yet been analyzed in
8 any depth in the literature, but would, we believe, be a fruitful subject for further study.
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14 Finally, the third contribution we would highlight concerns the assessment – made by
15 teachers after participating in the program – of the benefits of using the funds of knowledge
16 approach and their suggestions for improvement. The results we obtained are consistent with
17 existing literature emphasizing the benefits relating to improved school-family relationships
18 (Authors, 2013; Lin & Bates, 2010; Meyer & Mann, 2006; Whyte & Karabon, 2016). The
19 participating teachers highlighted the increased mutual trust with families which led to
20 improved communication with parents – in line with the work of Meyer and Mann (2006) –
21 as well as a more positive view of families of foreign origin as they gained a better
22 understanding of their circumstances and living conditions (Lin & Bates, 2010). Similarly in
23 line with previous studies, the teachers felt they had a better understanding of the contexts of
24 their students’ lives, helping them to understand their behaviors and attitudes without
25 resorting to prejudices and stereotypes (Authors, 2013; Meyer & Mann, 2006). One of the
26 findings in our study, which we have not found in previous works, was how teachers
27 welcomed the benefits of working with the support of the study group. The participants
28 highlighted the support they received and the way their work was enhanced and extended
29 through their collaboration with their fellow teachers and with the research professors from
30 the University. We believe that the study group works not just as a *community of practice*, as
31 we said earlier, but also as a *mediating structure* between school practice and visits to the
32 family homes (Moll, 2014) and as a place of mutual support among the participants. The
33 teachers carried out the visits in pairs and the teaching units and activities were designed
34 collectively, with experience, ideas and work all shared. This leads us to another of the
35 benefits of the funds of knowledge approach we have identified here, namely, the
36 strengthening of the educational community: a community of collaboration and a network of
37 support among school leaders and fellow teachers which includes collaboration with the
38 families.
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3 The participating teachers did see some problematic aspects, such as the effort and dedication
4 involved in training and taking on board the approach, as well and putting it into practice
5 with home visits, for example. Similar complaints were found in a previous study (Authors,
6 2013). One of the things underlying this perception might be the difficulty the teachers
7 experience in acquiring new roles, such as “anthropologist” or “learner” as they investigate
8 the lifestyles of the students’ families (Whyte & Karabon, 2016). We found no indications of
9 any difficulties in generalizing the funds of knowledge, given that there were certain
10 convergences between different visits. However, we did find that the participating teachers
11 were a little reticent when it came to identifying the experiences and implicit cultural codes
12 among the different families, beyond the more easily observable aspects such as food or skills
13 related to agriculture and gardening.
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23 In short, the experience described in this paper empirically supports the thesis that the study
24 groups (in the context of the funds of knowledge approach) can be understood as
25 communities of practice that are useful in teacher training for teachers in active service. In
26 this sense, the study group constitutes an instrument that offers support and enhances job
27 performance, improves relationships with families and provides a platform for educational
28 innovation via the incorporation of the funds of knowledge identified among the families
29 visited. This allows teachers to contextualize educational activities which, it is expected, will
30 therefore be more meaningful and more favorable to school performance for all students,
31 regardless of their diversity and social and cultural background. This hypothesis, which is in
32 line with the work of McIntyre et al (McIntyre, Kyle & Rightmyer, 2005; McIntyre,
33 Rosebery & Gonzalez, 2001), needs to be investigated further and analyzed empirically in
34 future work. That is to say, further studies are required to analyze in depth the impact of the
35 educational activities in school performance and student performance.
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Table 1. The funds of knowledge detected by the teachers among the five families interviewed

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| <ul style="list-style-type: none"> - Multilingual skills (various languages were detected in the homes): Sarahule, Mandinga, Bambara, Chinese, Arabic, French, Catalan, Spanish, English. - Gardening and agriculture (e.g., plot of land with African products). - Food (use of peanuts in the kitchen, cooking with food from the countries of origin, mixing home country cuisine with the Mediterranean cuisine of the host country). - Sports (football: watching and playing, an activity shared by the fathers and sons in two of the families). - Music (e.g., typical dances of Mali). - Board games (e.g. card games). |
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Figure 1. The study group, in session on March, 4, 2016

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Figure 2. One of the visits carried out involving a family of Moroccan origin



Figure 3. Photograph of an educational activity using a card game

For Peer Review

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