

Subtitling for the Deaf and the Hard of Hearing in
Spain: A study on Media Accessibility, Accessibility
Studies and the Standard UNE 153010:2012

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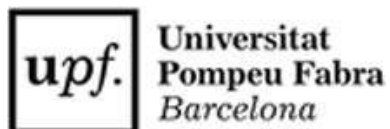
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TRADUCCIÓN Y CIENCIAS DEL LENGUAJE



To my grandparents, who are always in my heart.

Acknowledgments

This PhD thesis, focused on Accessibility and on the Deaf Community, grew out of a Netflix TV series called *Switched at birth*. This series, set in the USA, tells the story of two new born baby girls, who are raised by the parents of the girl they have been mistakenly exchanged with at birth. The two families raise the girls as their own, unconscious of the accident, only to end up discovering the truth many years later and becoming involved in each other's lives. This is not all, in fact one of the two babies was born with severe hearing impairments, but instead of giving up on her, her parents learned how to speak American Sign Language (ASL) and together they learned how to communicate with each other through both ASL and spoken language.

The TV series is a great representation of Deaf Community and Deaf Pride, as well as of sign language, Deaf culture and interaction among the Deaf and hearers. Here, many topics are brought to the audience's attention, like the difference between being 'Deaf' and 'deaf', between being part of the Deaf Community only and being part of the Deaf and the hearers Community as well, but most importantly, it shows the struggles and the exclusion people with hearing impairments (PWHI) usually have to face. The TV series is based on the Deaf Community, a part of our society, which up until very recently did not receive the same attention and care as the main part of the world's population, due to its impairments and what that implies. Nowadays, the Deaf Community still faces many limitations, nor is it provided with the same possibilities of integration into our society as the rest of society, which leads to its marginalization and its consequent exclusion from gaining access to the same options as the rest of the community. Thanks to *Switched at birth* I discovered a profound admiration for the Deaf Community and for all the struggles that PWHI have to face in our society, so I decided to dedicate my research to Accessibility, with the hope that my studies will provide Academia with a small contribution towards a more equal and accessible future for all.

This PhD thesis would not have been possible without the help of a number of very important people. First of all, I would like to thank my supervisors, Montse Corrius Gimbert and Patrick Zabalbeascoa Terran for their dedication and guidance throughout these years of research. Thanks to them, I discovered my true voice in the field of Audiovisual Translation.

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Abstract

This study examines the opinions of the Deaf and Hard-of-Hearing and hearers of Spain with regards to the subtitling services currently offered by the Spanish Digital Television, with the aim of integrating them in a list of guidelines that could become part of the Standard UNE 153010:2012 in the future. This three-phase research focuses on Subtitling for the Deaf and Hard of Hearing (SDH), Media Accessibility (MA), Accessibility Studies (AS) and Accessible Filmmaking (AFM). It includes two surveys distributed in Spain and one comparative analysis of the subtitling services provided by Netflix, Amazon Prime Video and HBO in three well-known TV series. In the interest of writing a list of guidelines for translators to use in the creation of future *Inclusive Subtitles* in Spain, a review of the Standard 2012 was also conducted. The results indicate that the (selected) Spanish Audience wishes to customize some features of the subtitles offered by the Spanish Digital Television, like the font size, the colour and the speed, in order to improve their *access to enjoyment*, which is a new concept developed in this study. Additionally, the data show that the (selected) Spanish Audience wishes to have daily access to two new pages that could be provided on Teletext, called 'Vocabulary page' and 'Plot page'. On the 'Vocabulary page' the audience could consult the meaning of all the words and metaphors used in each program, while the 'Plot page' could offer a summary of the plot of each program transmitted by the Spanish Digital Television. Finally, the data retrieved in this study highlight that some guidelines of the Standard 2012 could be updated.

Resumen

Este estudio examina las opiniones de las personas s/Sordas y con dificultades auditivas, así como de las personas oyentes en España con respecto a los servicios de subtitulación que actualmente ofrece la Televisión Digital Española, con el objetivo de integrar los datos recogidos en un listado de directrices que podrían formar parte de la Norma UNE 153010:2012 en el futuro. Esta investigación en tres fases se centra en el subtitulado para personas s/Sordas y con dificultades auditivas (SpS), la accesibilidad de los medios de comunicación, los estudios de accesibilidad y el cine accesible. El estudio incluye dos encuestas distribuidas en España y un análisis comparativo de los subtítulos proporcionados por Netflix, Amazon Prime Video y HBO en tres series de televisión muy famosas. También se llevó a cabo un análisis de la Norma 153010: 2012, con el fin de proporcionar a los traductores un listado escribir una lista de directrices para la creación de futuros *Subtítulos Inclusivos* en España. Nuestros resultados indican que el público español (seleccionado) desearía poder personalizar algunas características de los subtítulos ofrecidos por la Televisión Digital Española, como por ejemplo el tamaño, el color y la velocidad, para mejorar su *acceso al disfrute*, que es un nuevo concepto desarrollado en este estudio. Adicionalmente, los datos muestran que el público español (seleccionado) desearía tener acceso diario a dos nuevas páginas que se podrían incluir en el Teletexto, llamadas 'Vocabulario' y 'Trama'. En 'Vocabulario' se podría consultar

el significado de todas las palabras y metáforas utilizadas en cada programa, mientras que en 'Trama' se podría ofrecer un resumen de la trama de cada programa transmitido por la Televisión Digital Española. Por último, los datos recogidos en este estudio destacan que algunas directrices de la Norma 2012 podrían actualizarse.

Resum

Aquest estudi examina les opinions tan de les persones s/Sordes i amb dificultats auditives com de les persones oients d'Espanya sobre els serveis de subtitulació que actualment ofereix la Televisió Digital Espanyola, amb l'objectiu d'integrar les dades recollides en un llistat de directrius que podrien formar part de la Norma UNE 153010: 2012 en el futur. Aquesta investigació en tres fases es centra en la subtitulació per a persones s/Sordes i amb dificultats auditives (SpS), l'accessibilitat dels mitjans de comunicació, els estudis d'accessibilitat i el cinema accessible. L'estudi inclou dues enquestes distribuïdes a Espanya i una anàlisi comparativa dels serveis de subtitulació oferts per Netflix, Amazon Prime Vídeo i HBO en tres sèries de televisió molt famoses. També es va dur a terme una anàlisi de la Norma 153010: 2012 amb la finalitat de proporcionar un llistat de directrius per a la creació de futurs *Subtítols Inclusius* a Espanya. Els nostres resultats indiquen que el públic espanyol (seleccionat) desitjaria poder personalitzar algunes característiques dels subtítols oferts per la Televisió Digital Espanyola, com ara la mida, el color i la velocitat, per tal de millorar el seu *accés al gaudi*, que és un nou concepte desenvolupat en aquest estudi. Addicionalment, les dades mostren que el públic espanyol (seleccionat) desitjaria tenir accés diari a dues noves pàgines que es podrien incloure en el Teletext, anomenades 'Vocabulari' i 'Trama'. A 'Vocabulari' es podria consultar el significat de totes les paraules i metàfores utilitzades en cada programa, mentre que a 'Trama' es podria oferir un resum de la trama de cada programa transmès per la Televisió Digital Espanyola. Finalment, les dades recollides en aquest estudi destaquen que algunes directrius de la Norma 2012 podrien actualitzar-se.

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1. INTRODUCTION

Subtitling for the Deaf and Hard-of-Hearing is a field of study of relatively new origins, since it saw the light only at the end of the XX century (Neves 2007: 96), and although many are the progresses in this research field made by scholars such as De Linde, Díaz-Cintas, Franco, Cuéllar Lázaro, Matamala, Neves, Orero, Perego, Pereira, Romero-Fresco, Szarkowska, Tamayo, Zárate, Arias, among others, much can still be improved. There is the need to experiment new techniques, to change perspectives and to be open to new projects and ideas. For this reason, the methodology in developing this topic may not be one only, hence eclectic.

As technology keeps developing and changing, the market of the media and their audience is changing too. Indeed, it has been proven that Subtitling for the Deaf and Hard-of-Hearing (SDH) is a service whose advantage is not limited to this particular group, but it also improves the accessibility to multimedia productions for a far greater audience.

“In line with the often-quoted report from Office of Communications (2015) stating that of 7.5 million users of SDH in the UK, 6 million do not have hearing loss¹, current legislation now seems to acknowledge that access services do not only benefit persons with sensory impairments but also the elderly, people with learning disabilities and people watching media in a foreign language, among others”. (Romero-Fresco, 2018: 189)

As Oncins and Orero (2020: 78) correctly remind us

“Accessibility is defined within EN ISO 9241-112:2017 as the ‘extent to which products, systems, services, environments and facilities can be used by people from a population with the widest range of user needs, characteristics and capabilities to achieve identified goals in identified contexts of use’. However, there is no common international definition on how products and services should be made accessible”.

Accessibility has already been addressed as ‘an instrument for achieving human rights’ by Greco (2016: 06), Greco (2018), Greco and Jankowska (2019: 09), or by the three Polish researchers Szarkowska, Pietrulewicz and Jankowska (2015) who carried out a questionnaire, as part of the DTV4ALL project, in which they inquired the participants

¹ In my opinion “hearing loss” stems from a hearing centric approach, thus in this doctoral thesis these terms will not be used with reference to “deafness” or “hearing impairment”. Whenever I will present a quote of an author who originally wrote his work in English, I will leave the quote intact in order not to alter the original version, although it would mention “hearing loss”, like in the case of Romero-Fresco (2018). However, if the quote was found in a work that was originally written in another language, I will take the liberty to switch “hearing loss” for “deafness” or “hearing impairment” in the English translation provided by me in this research study.

“[...] on preferences regarding a number of parameters related to subtitling for the deaf and hard of hearing” (2015: 45). They discovered that the vast majority of people taking part in the study, “172 Polish participants with various degrees of hearing loss” (2015: 45), chose “the programmes they watch [on TV] depending on whether they are subtitled or not” (2015: 56), they also found out that for most respondents subtitles are useful to understand programmes, while for many others it is their only way of accessing the dialogue. Language learning is also a critical factor (2015: 57).

An important example of encouragement towards accessibility is represented by RomeroFresco (2018) who describes the progresses made in the field of Media Accessibility (MA) and depicts the current situation in the UK:

“MA rides the wave of political correctness and equal rights and is a key issue in society. However, when it comes to cinema, the situation is very different. Accessibility is still not visible within the British film industry, where it remains a side issue, tackled at the end of the process, outside the control of the filmmaker, in a short period of time and for very little remuneration. As a tentative reason, it may be possible to argue that the same ghetto effect that has helped deaf and blind lobbies achieve progress and improvement within a narrow conceptualisation of MA has also singled out these groups as a minority in the eyes of the film industry”. (Romero-Fresco, 2018a: 193-194).

Nowadays, people can watch all sorts of media productions on a range of technological devices. As predicted by Nida (1991: 20) in his seminal work *Principles of correspondence*, translations need to be directed towards the different types of audiences, while translators need to look at “the circumstances in which translations are to be used”.

Creating subtitles for the Deaf and Hard-of-Hearing (DHH) is not a simple assignment and that is due to the double challenge translators need to face: translators do not simply need to transcribe what has been said by the various characters on the screen, but they also have to adapt the subtitles to their audience with all the adjustments and details this task conveys. The audience does not consist of a homogeneous group of people, but it includes hearers, people with hearing impairments (PWHI), people with visual impairments, people with cognitive impairments, people with more than one impairments, foreigners learning a new language, children and elderly. Each individual in this group experiences the audiovisuals differently, which is why they all have personal needs when it comes to watching a multimedia production. For example, while the subtitles for the DHH must include extra information regarding sounds, music or voices present in the background, the subtitles for the hearing audience do not require such information. As Zárata (2021: 13) well explains

“[...] the position of the subtitler responsible for SDH is different from that of the subtitler for the hearing audience. The SDH subtitler, similarly to the subtitler for the hearing audience, translates verbal information (dialogue exchanges, narration, etc.). However, while the latter always translates interlingually, the SDH subtitler

translates mainly, but not only, intralingually. The SDH subtitler, unlike the subtitler for hearing audiences, also has to translate sounds that are non-verbal and peculiar to SDH, namely music, sound effects, intonation, accents and voices (i.e., who is speaking)".

Even though the d/Deaf² may not interact between each other through spoken language, they do communicate between each other, and with the rest of the world. As a matter of fact, the d/Deaf may speak through spoken language or through sign language, in case they know either one of them. Some individuals may even know how to read lips, which is an ability they might resort to mostly when interacting with hearing individuals. Subtitles represent to the d/Deaf the only door to multimedia information and images are the visual eyes of sound. Therefore, "when subtitling for these specific audiences [...] it is up to the subtitler to turn into words both the dialogue that is heard and the sound effects that are only apprehended" (Neves 2009: 157). She goes on to declare that "Deciding what is relevant is a difficult task, for relevance is determined by the needs of the addressee. Ideally, subtitlers should aim at producing equivalent effects on their audience as those produced in the target audience of the original" (2009: 157). This was not the first time Neves had such a thought, as it is possible to notice in her article "10 fallacies about Subtitling for the d/Deaf and the hard of hearing".

"[...] special effort must be put into getting to know our audiences as well as possible and to adjusting our work to the genre and style of the audiovisual text we are subtitling (which in itself will be an audience selector), so that the subtitles provided truly offer d/Deaf of hard-of-hearing viewers a rewarding viewing experience". (Neves, 2008: 132)

Gutt (1991) and Zárte (2021), like Neves, are also concerned about relevance in the practice of subtitling. Gutt (1991: 386) highlights the subjectivity of the translator's beliefs with regard to the relevance of the information to be included in the subtitles, and he explains that "The translator does not have direct access to the cognitive environment of his audience, he does not actually know what it is like –all he can have is some assumptions or beliefs about it. And, of course, as we have just seen, these assumptions may be wrong". This opinion is shared by Zárte (2021: 13-14), who explains that ideally SDH would be designed by both hearers and d/Deaf professionals working in the field of AVT. However, she says,

"[...] this happens very rarely for obvious financial reasons. As a result, in the training of SDH subtitlers, the programme of study needs to include and address,

² Although Morgan and Kaneko (2019: 02) declare that in their articles "[they] we use lowercase 'deaf', as this has been the practice in deaf studies during the last decade", since "the growing trend of lowercase 'deaf' [is] being used to signify the fluidity of deaf cultural identities being placed at multiple places anywhere along the continuum between deaf' and 'Deaf' (see Bauman 2008, Brueggemann 2008, West 2012)", I believe that 'd/Deaf' can be just as appropriate in the representation of the "fluidity of deaf cultural identities". Indeed, by using 'd/Deaf' there is no assumption that the individual in question is either part, or not, of the Deaf Community.

in addition to the traditional subtitling skills, the sociolinguistic requirements of a target audience that has limited or no access to the auditory channel”.

Although Subtitling for the Deaf and Hard of Hearing (SDH) consists of a subtitling service aimed at providing media accessibility to DHH viewers, it is essential to keep in mind their importance for the wider group of people benefitting from them, as for example people with learning impairments, people with cognitive impairments, people with more than one impairments, foreigners, seniors or even people who cannot properly access a multimedia production due to environmental reasons. Consequently, this subtitling service does not render media productions more accessible to the Deaf Community only, but they promote media accessibility to a much greater audience and for this reason, SDH should be referred to as ‘Inclusive Subtitling’. By doing so, this subtitling service would appear as a service aimed at improving media accessibility for all the people in the audience, and not just for a selected group of viewers. For Zárate (2021: 23), multimedia productions should provide media accessibility for as many viewers as possible, in order to let everyone in the audience enjoy their experience without feeling less than others. As a matter of fact, she states

“[...] audiovisual experiences should be implemented in such a way as to include as many people as possible. The existence of deafness may lead to a different experience of the audiovisual product on the part of the viewer. In this sense, the experience may be more visual than auditory, without implying any lack or disadvantage, especially if the requirements of the audience in question are known and being taken account of through the implementation of the appropriate accessible services.”

For Nord the target audience is “not a real person but a concept, an abstraction gained from the sum total of our communicative experience, that is, from the vast number of characteristics of receivers we have observed in previous communicative occurrences that bear source analogy with the one we are confronted with in a particular situation” (2000: 196). When translating, an important factor is the addressees, regardless of the means of communication. For instance, some progress was made by a study regarding sixteen deaf children in their first and second year of elementary school run by Cambra et al. (2009). The research, which focused on analysing the ability of deaf children to fully understand the plot of the animated cartoon movie “Shin-Chan”, showed that by prioritizing the subtitles of the main storyline and by maintaining the complexity of the screenplay without changing it to a simpler one, the comprehension of the story greatly improved for the children of the study. The above-mentioned research revealed the importance of adapting the subtitles to the audience they were written for, as well as increasing the amount of time they were shown on the screen.

Another key factor in the design of subtitling services is represented by the time that the audience needs to read the subtitles on screen. Jensema et al. (2000) showed that when someone is watching an audiovisual production with subtitles, they spend 84% of the time reading the subtitles. As a consequence, the audience experiences a great loss of information by not following the images and the subtitles at the same time. Indeed, subtitles are usually shown on the screen for an insufficient amount of time, which

naturally forces the audience to rush into reading the lines on screen and to lose part of the information.

“It is commonly accepted that average subtitling reading speeds are 150 to 180 words per minute. This number will necessarily vary according to the manner in which the text is presented, to the quantity and complexity of the information, and to the action on the screen at any given moment (De Linde 1995:10). The six second rule has been widely accepted as a rule of thumb for ‘readable’ subtitles. [...]”. A statement which she continues by reminding us that: “[...] deaf adults tend to have the reading ability of a nine-year-old hearing child”. (Neves, 2008: 136)

More studies confirm the inappropriate subtitling speed, as Arnáiz-Uzquiza (2015: 111) certifies through the results obtained from the long questionnaire she worked on in Spain as part of the DVT4All project: “As regards subtitling speed, although most hearing and hard-of-hearing participants consider the average subtitle speed to be correct both for live and pre-recorded TV and DVD programmes, 47% of the deaf respondents regard it as too fast for TV and more than 50% as too fast for DVD”.

It is important to keep in mind that subtitling speed has not been yet established by law in any country, or in any multimedia production, whereas some countries, like France or Spain, do recommend specific subtitle display rates. Fresno and Sepielak (2020: 02) shed light on this topic by explaining that

“Standards and regulations in Australia (ACMA, 2016), Canada (CRTC, 2016) and the US (FCC, 2014) mention speed as a parameter that should be taken into account in closed captioning, but do not clarify what speed ranges would be appropriate for the intended users. By contrast, France (CSA, 2011), Spain (AENOR, 2012) and the UK (Ofcom, 2017) recommend specific presentation rates for subtitles aimed at audiences with hearing loss.”

However, Szarkowska and Morón (2018) have proven that viewers can keep up with fast subtitles and that slower subtitles do not lead to a better understanding of the audiovisual production. The same opinion is also shared by Zárata (2021).

“[...] as slow subtitles were displayed longer, people did spend more time reading them in absolute terms, but they still did not look at the subtitles for about 50% of the time the subtitles were on screen. We think the reason why people did not look at the subtitles for about half of the time is that they did not need them to be displayed for that long, as they managed to read them faster.” (Szarkowska and Morón, 2018: 25)

“[...] the majority of d/Deaf and hard of hearing people have some access to sound, and therefore an accurate transcription of dialogue may be simply easier to follow than an edited one, as the same information is received through the visual and auditory channels. In other words, unedited subtitles may validate what is being heard, while a mismatch between the audio and the subtitle at a comfortable

reading speed may be more confusing, and therefore less effective, than a subtitle that has a higher reading speed but tallies with the audio”. (Zárate, 2021: 40-41)

It appears that the loss of information is not caused by the subtitling speed, but by the subtitles themselves. Miquel Iriarte (2014b: 358) declares that when visual and verbal information are simultaneously displayed, the reading of the subtitles takes control over the viewing of the images. Szarkowska and Morón (2018: 25) share the same opinion: “Previous research has shown that subtitles are great gaze attractors and that reading subtitles is automatic, so when subtitles are displayed on screen, people automatically look at them”.

Information of some sort is lost in almost any kind of translation due to the language and cultural differences involved in the process. Therefore, it is of primary importance for translators to offer subtitles for everyone in the audience, including DHH viewers, otherwise the loss of information for this particular group would be practically total and not partial. Audiovisual Translation for the Deaf and Hard-of-Hearing suggests an even greater loss caused by the lack of standardization of the linguistic varieties, as shown by Carrera and Lorenzo (2008) for the case of Spanish. As a matter of fact, their study reveals that in the Standard UNE 153010:2003 there was an absolute absence of general rules regarding specific connectors and conjunctions with the aim to help the Deaf and Hard-of-Hearing realize the different linguistic varieties during a multimedia production. Furthermore, the two researchers declare that the Deaf Community is constantly exposed to linguistic varieties, due to their personal knowledge of both the oral language and of their national sign language. Carrera and Lorenzo (2008) mention an example regarding the sign in use for the word “man”, which in most of Spain is represented by touching the brim of the hat, whereas in Valencia people bring their hand to their moustache to represent this same concept. The way people express themselves is a characterisation of their culture, age, era, job and so on.

“In the Western cultural tradition, expression of thoughts, preferences, and feelings is considered to be a way to express one’s selfhood, and thus, freedom of expression becomes a powerful sign of individual freedom. As the value of freedom and individuality are core ideals that define individualistic cultures, selfexpression, defined as “assertion of one’s individual traits” (Merriam-Webster, 2006), is strongly valued in these cultures. [...] . In contrast, in another cultural context in which the model of relationships and the concept of the self are different, the meaning of self-expression could also be different. For instance, in a more collectivistic culture, the cultural privilege bestowed on expression may not be shared. For example, in the East Asian cultural context, expression of one’s thoughts may be neither particularly encouraged nor viewed positively.” (Heejung and Sherman, 2007: 01)

While for the majority of people those cultural differences appear to be instantly clear when watching audiovisuals, people with disabling hearing impairments have no knowledge of this phenomenon. What is more, d/Deaf people might find it struggling to understand the meaning of specific sentences, or even the meaning of certain words, used in the subtitling services. The reason for this is explained by Neves (2005: 97), who states

that the ability to understand the content of audiovisual productions depends on a number of factors, such as

“[...] prior knowledge of the topic; the ability to relate the new information to that previously known; the ability to integrate and process information at word, phrase, sentence and paragraph level; and, finally, the ability to monitor one’s reading through self-questioning and inferencing. These skills are not innate, they need to be learnt and improved through practice, in a process that can be long and painful to hearers and deaf people alike”.

Generally speaking, it is quite difficult to find any specific element in the language of the various characters of audiovisual fiction by simply reading the subtitling services offered on screen, since there is no linguistic element that characterises and defines each of them. For this reason, many have been the ideas proposed to solve this problem, such as the use of specific colours (Lorenzo 2006: 133) or the miniature pictures to recognize each speaker (Civera and Orero, 2006: 149).

Personally, I think that it is essential to translate all audiovisual productions as clearly as possible without eliminating useful information for the audience, who otherwise would not completely understand the content of what they are watching. However, it is important to recognize one of the many difficult tasks of subtitlers, which is to decide which information is necessary, and therefore must be included in the subtitles, and which information may be otherwise omitted. The choice of including or omitting certain information in the subtitles thus partially depends on the subtitler’s criteria. When watching audiovisual content, there are endless elements, like background sounds, music, voices and other noises, that might seem irrelevant for the comprehension of the audiovisual text, but are actually essential for the viewers. Reducing the loss of information in the creation process of subtitles, would represent a great improvement in the world of Inclusive Subtitling.

The present work attempts to deepen the knowledge of Accessibility Studies with special focus on Subtitling for the Deaf and Hard-of-Hearing (SDH) in Spain, which can also be used by people with learning or cognitive difficulties, people watching a film in a nonnative language, people who cannot hear the audio due to environmental conditions, thus, making the media accessible for everybody. This research revises what has been studied till the day of today and what changes have been put into practice after the acceptance of new norms and proposals. The research study consists of three parts: a survey distributed in Spain to both hearers and PWHI, a comparative analysis of the subtitling services offered on three well-known Over-The-Top (OTT) platforms (Netflix, Amazon Prime Video and HBO), and a second survey distributed in Spain to both hearers and PWHI based on the results obtained by the first two phases of the research study.

1.1 State of the art

“Over 5% of the world’s population –or 430 million people– has disabling hearing loss. It is estimated that by 2050 over 700 million people –or one in every ten people– will have disabling hearing loss. Hearing loss may result from genetic causes, complications at birth, certain infectious diseases, chronic ear infections, exposure to loud sounds, use of ototoxic medicines, and ageing. In children, almost 60% of hearing loss is due to causes such as ear infections and birth complications that can be prevented through public health measures”. (WHO: 2021)

Deafness may be mild, moderate, severe, or profound and it can affect one ear or both ears. People with hearing impairments may have always been d/Deaf or Hard-of- Hearing, or they may have become deaf during the years. In fact, many could be the causes for a person’s hearing impairment including: genetics, ageing, exposure to noise, ear infections, birth complications, trauma to the ear etc. (WHO: 2017. Deafness and hearing loss). WHO (2020) in Zárte (2021: 23) states that deafness is measured in units called decibels (dB) and, in order to be considered a person without hearing impairments, that person must be able to hear sounds at 20 dB.

“Deafness is measured by determining the loudness of the quietest sound heard, using decibels (dB). People who are not affected by deafness can hear sounds at 20 dB or less across all frequencies. Over 5 per cent (466 million) of the entire population worldwide (7.6 billion) –or one person out of 20– is affected by disabling deafness, that is, a degree greater than 40 dB in the better-hearing ear in adults and a degree greater than 30dB in the better-hearing ear in children (WHO 2020)”. (Zárte, 2021: 23)

What is more, it is important to keep in mind that the d/Deaf represent a minority of the human population, they have their culture, their traditions, and they also share cultural traits with people from their country. Ultimately, they have the same rights and duties as any other human being. This is why their right to be integrated in our society matters and Accessibility Studies represent a great channel through which such rights can be protected, and the d/Deaf can connect with the rest of the society. Certainly, Pérez- González (2014) is not the only one who thinks that accessibility has a great influence on people with hearing impairments.

“The UN Convention on the Rights of Persons with Disabilities (CRPD) signed in 2007, with fifty articles talking about civil, political, economical, social and cultural rights of this group of people and considering that the absence of accessibility is discrimination. The CRPD describes disability as, not only being related with the person, but also with the hurdles and the interaction of these people with the environment that they live in. And that disability is a direct result from this interaction and the environment that prevent their active role in society and from having the same rights as other people. Also, the CRPD, in article 21, ensures that persons with disabilities can exercise the right to freedom of expression and

opinion, “including the freedom to seek, receive and impart information and ideas on an equal basis with others”. (Toledo, 2018: 152)

However, in many countries the majority of the movies and programmes transmitted on the big screen still do not have any subtitles, not to mention SDH. And when they do present subtitles, the TV channels of the various countries generally respect the minimum number of hours of subtitled programs required by law, as is the case for Spain. Therefore, there are only a few possible solutions a person with hearing impairments could adopt in order to overcome this situation.

Depending on the degree of deafness, there is the possibility of using the new Sony Access Systems, a pair of glasses Sony produced to allow people to make use of SDH services when watching a movie; the Dolby CaptiView, which is a personal in-theatre captioning system that consists in an OLED display on a support arm; lip-reading only or the use of a cochlear implant. As it is possible to see, there are only a few options that viewers could rely on, while Neves (2009: 152) states that it would be best for the professionals in the field of AVT to take advantage of the new technological possibilities in order to provide a better service to those audiences who are not considered part of society.

“Technological and policy changes are offering new challenges to all those working within AVT and it would be interesting to see practices improving, by taking advantage of the new products for the benefit of audiences who should not be seen as minorities but as one of the many parts of a fragmented reality”. (Neves, 2009: 152)

With regards to cinema, in 2013 the Spanish university, Carlos III, in Madrid collaborated with *Whatscine* to create a new *Whatscine* app for users to download and use for free for watching streamed TV series or for the cinema theatres. *Whatscine*'s aim is to render media more accessible to people with hearing or visual disabilities by providing subtitles, audio descriptions and Spanish sign-language translations by simply connecting to the Wi-Fi from iOS and Android systems. The app does not provide the subtitles/audiodescription/sign language translation to all movies, and cannot be used in all cinemas or with all TV sets, but it is a step towards a more accessible world.

In 2014, Craig Grummitt launched *Subtitles Viewer!*, a free-of-charge app designed for iPhones and iPads only. Much like *Whatscine*, this app was created to assist viewers while watching multimedia content at home or at the movies and it provides a limited number of subtitles that “[...] come from the site Opensubtitles.org and are available in a variety of languages including English, Spanish, French, and German” (‘Subtitles Viewer!’, accessed on 04/05/2021). In 2015, the iOS developer launched another version of the same app, called *Subtitles Viewer PRO*. This app was made available in the App store for 9.99\$ and provided unlimited subtitles for the audience to download. In the same year Benjamin Bisinger launched his app *Subtitle Viewer* on Google Play. This app was developed for Android devices and it is free of charge.

As shown by the above-mentioned examples, there are a few options offered to the audience, however they are either very expensive options, like the Sony Access Systems

or the Dolby CaptiView, they might be limited to one or to a few countries, as in the case of the *Whatscine* app only available in Spain, or they implicate a great change in the identity of the person in case, as it happens in accepting a cochlear implant. Accepting a cochlear implant is not obligatory, nor is it the only solution to a hearing impairment. It is a personal choice towards which a person must take willingly and not as a compulsory solution for their hearing impairments. As Szarkowska (2017) explains, “From the medical perspective, restoration of hearing could, or even should, be the goal. Yet, this is in conflict with cultural perspectives on what it means to be a person who is Deaf.” Furthermore, as WHO points out, most people with hearing impairments live in low- and middle-income countries, for which the accessibility to the other above- mentioned non-invasive options would represent an additional problem. Not to mention that in developing countries, children with hearing impairments and deafness rarely receive any schooling, while adults with hearing impairments have a much higher unemployment rate than in the other countries. Education should not be a privilege, nor should having the same rights as everybody else.

With regards the education of children with hearing impairments, it seems relevant to note that reading subtitles could help improve their reading abilities. Indeed, it appears that by constantly exposing young audiences with hearing impairments to subtitles, they would be discovering new details about the world they live in, as well as practising their reading skills in a fun way. As a matter of fact, Tamayo (2017b: 75) explains that

“In AVT research undertaken over recent decades, it has been acknowledged that children and young audiences have special needs, for they have limited knowledge of the world and their reading skills are not fully developed. Children start watching TV before they can read and they might benefit from certain subtitling strategies and techniques that allow them to improve their reading skills and gain knowledge of the world while enjoying watching a series or a film. That is true to any young audience, but more significantly so when dealing with hearing impaired young audiences, as they typically need more time to learn how to read fluently and therefore might benefit from an extra adaptation of subtitles that allows visual solutions that fit in with their way of interacting and understanding the world”.

On another note, it is important to call attention to the many improvements which have been offered by the UNE 153010:2012 in comparison to the previous law applied to the Spanish country. While UNE 153010:2003, developed by the Spanish Association of Normalization and Certification (AENOR), basically focused on subtitling by Teletext, the following standard of 2012, as Cuéllar Lázaro (2017) points out, “contemplates the full range of possible scenarios for audiovisual communication and aims to establish basic requirements in quality and homogeneity in the subtitling for the deaf and the hard of hearing”. Certainly, the advances presented in this second standard highlight the constant growing interest of our society towards people with disabilities and their desire for a more accessible and understanding audiovisual environment, a desire that must be shared by everyone in order to reach equality among people. It is not enough for devices and technology to be usable, but everything must become accessible to everyone leading to a Universal Accessibility, as Spain already described in 2003:

“Universal accessibility is the condition that environments, processes, goods, products and services, as well as instruments, tools and devices, must meet in order to be comprehensible, usable and practicable by all people in safety, comfort and in the most autonomous and natural way possible (Law 51/2003).”³

Although this goal has not been reached yet, many have been the improvements provided by the Standard UNE 2012 in Spain. The first and most important difference between the two standards consists in the communication platforms the standards are directed to: while the Standard 2003 was covering the subtitling by teletext only, Standard 2012 aims to act on all possible audiovisual platforms. The new goal is to offer the best solutions to the widest audience possible, including people affected by intellectual impairments, which demonstrates a great concern for the whole population. As for further improvements, the Standard 2012 also draws attention to the importance of identifying the various characters/actors of each program, in order to make it easier for the audience to follow the show. Standard UNE 153010:2012 (2012: 10) states that the characters on screen can be identified in three ways, i.e., through the use of colours, through the use of name tags or through the use of the dash. Colour assignment is the most used identification method on the Spanish Digital Television, however when the number of characters on screen exceeds the number of colours at the subtitler’s disposal, which in Teletext is only four, the characters are to be identified through name tags. This method is also used in case of possible misunderstandings caused by the use of colours. If a character on screen is saying multiple sentences, a dash will be put before the new sentence in order to identify the character speaking. In addition to this, the speed of the subtitles is also taken into consideration and the time allowed is now four seconds per line. Sounds and soundtracks are not to be left out, as it is shown by the new definition of “sound effects” presented by the Standard 2012, which are described as “non-spoken sounds” relevant to the show due to the information they convey. Soundtracks and music are also identified as relevant for the understanding of the program and the lyrics will now be transcribed for the audience to read them. Finally, the Standard 2012 draws attention to the use of abbreviations, acronyms, symbols and initials.

The improvements suggested by UNE 151030:2012 marked a great change in the quality of life of the Spanish audience. However, many are still the problems present in the field of SDH; for example, heterogeneity in the standards followed by the various channels in Spain or the number of hours those are displayed in the country. For Bartoll and Martínez Tejerina (2008: 70), “Standardization is a controversial and complex matter since the labels *deaf* and *hard of hearing* cover an extremely heterogeneous group, consisting of, for example, deaf children, cochlear implanted people, oralists, sign-language users and prelingually and postlingually deaf people. All these individuals have very different needs and requirements”. For this reason, Tamayo (2017b: 84) remarks the compelling need for guidelines and practice in the field of AVTS, to which she adds “New projects are showing that some characteristics might be worth exploring further in the future and we are now seeing a more coherent and cohesive way of working to assure accessibility”.

³ Original version: “Accesibilidad Universal es la condición que deben cumplir los entornos, procesos, bienes, productos y servicios, así como instrumentos, herramientas y dispositivos, para ser comprensibles, utilizables y practicables por todas las personas en condiciones de seguridad, comodidad y de la forma más autónoma y natural posible (Ley 51/2003).” Translation provided by PhD candidate Roberta Cepak.

The Deaf and Hard-of-Hearing are not the only people SDH should be addressed to. Indeed, it is important to consider the heterogeneity of the audience watching TV productions and to open the doors to all of them by making the media accessible for everybody. As Romero-Fresco (2018a: 188) well explains

“[...] the latest international standard on subtitling, ISO/IEC DIS 20071-23 (International Organization for Standardization, 2018), cites as its main target users persons with hearing loss, persons who are deaf or hard of hearing, persons with learning difficulties or cognitive disabilities, persons watching a movie in a non-native language, persons who need the content to be in another language, persons who cannot hear the audio content due to environmental conditions, or circumstances where the sound is not accessible (e.g., noisy surroundings), the sound is not available (e.g., muted, no working speakers), or the sound is not appropriate (e.g., a quiet library)”.

Certainly, the mere fact that something is usable does not necessarily make it accessible, and that is why researchers and stakeholders are shifting the focus from the amount of translated material to the quality that each product retains at the moment it becomes available to the audience. As Greco and Jankowska (2019: 09) state “[...] in a world where accessibility is increasingly becoming and used as an essential tool for human dignity, quality is indeed a basic necessity and should be the touchstone of all research and practices in accessibility studies, including MA”.

In order to deliver high quality translated material to the audiences, it is imperative to pay attention to the translators working in the field of AVT. As a matter of fact, the audience has always been wide and diverse in itself, but only lately professionals and researchers highlighted the problem and offered thoughts and ideas on how to improve the situation. As Martínez Sirés (2016: 42) points out, it would be expected for the professionals of the future to be trained not only as translators, but as accessibility- related experts as well.

“We could also say that AVT is undergoing, not only in Japan but in most of Europe and the United States, an ‘accessibility turn.’ Accessibility in the media is a recognised right for people with hearing or visual impairment, so it is only logical to assume that accessibility-related subdisciplines of AVT will start to receive more attention in the years to come. But in order to do so, more qualified instructors are needed in order to foster future professionals or scholars”.

The urge to render both the media and the Web more accessible to everyone has been growing all over the world and some countries are already taking steps towards AS. For example, Romero-Fresco (2015a: 164-165) explains that “In France, Spain and the United Kingdom, new accessibility guidelines have recently been adopted, while academic research in AVT is increasingly focusing on experimental approaches and reception studies with a view to improving the quality of SDH, AD and more "traditional"

modalities, such as interlinguistic subtitling and dubbing”⁴. Another example of the efforts made by some countries to render our society more inclusive and accessible for everybody is reported by the United Nations (2006) in Jiménez Hurtado and Barnés Castaño (2020):

“European countries have made great efforts to adapt their policies to the aspirations of the different strategies of the H2020 and thus promote modern, innovative and inclusive societies. At the same time, national legislation has boosted access to cultural heritage, which is enshrined as a right in article 30 of the Convention on the Rights of Persons with Disabilities (United Nations 2006)”.

Toledo (2018) highlights the most relevant progresses in SDH around the world with special focus on Brazil, Canada, the United States of America and the United Kingdom. By reading her article, one is able to have a partial worldview of the progress made in the field of Audiovisual Translation and to compare it to the European, and more specifically Spanish, situation. For example, Toledo (2018: 154) explains that in Brazil “accessibility is a requirement to use, safely and autonomy, any space, urban equipment from buildings, transportation services and devices, systems, forms of communication and information, by people with disabilities or limited mobility. It also considers a hurdle any obstacle or barrier that limits or prevents access to free movement and possibility of communication or access to information”. She continues by saying

“One of its highlights is Article 21, where the CRPD ensures the freedom of expression and opinion, and access to information. This article focuses on the idea that all media should not only be able to provide the information to people with disabilities, but also allow it in accessible formats with the appropriate technology. As well as facilitating and promoting the use of sign languages, Braille and alternative communication and encouraging all media outlets to provide their information in accessible formats”.

As seen in this quote, in Brazil accessibility is pursued through technology and translators, which highlights the importance of a further and stronger cooperation between the parties. Toledo focuses on the most important laws in use in the United Kingdom; for example, the most recent *The Equality Act* of 2010:

“[It] is the main anti-discrimination law in the UK. It unites over 116 laws into one bill that protects all people, including people with disabilities. The Act also assures that all government websites in the UK have to follow the Web Content Accessibility Guidelines (WCAG), while the private ones need to be accessible, but not necessarily follow the WCAG” (Toledo, 2018: 156).

⁴ Original version: “En Francia, España y el Reino Unido, se han aprobado recientemente nuevas directrices de accesibilidad, mientras que la investigación académica en TAV se está centrando cada vez más en enfoques experimentales y estudios de recepción con vistas a mejorar la calidad del SpS, la AD y las modalidades más “tradicionales”, como son la subtitulación interlingüística y el doblaje”. (Romero-Fresco 2015a: 164-165). Translation provided by PhD candidate Roberta Cepak.

As far as the United States of America is concerned, their most recent law is the *TwentyFirst Century Communications and Video Accessibility Act (CVAA)*, a law signed by President Barack Obama in 2010 that “updates federal communication law to increase the access of people with disabilities to new technologies. The CVAA ensures that accessibility laws enacted in the 1980s and 1990s are brought up to date with 21st century technologies, including new digital, broadband, and mobile innovations” (Toledo 2018: 157). Finally, Toledo explains the current situation of subtitling for the DHH in Canada, a country without a national anti-discrimination law. However, Ontario does have one, “The Accessibility for Ontarians with Disabilities Act (AODA), a reference in Canada. The AODA was passed in 2005 to set an accessibility standard in which no person with a disability is prevented from fully participating in all aspects of society because of his or her disability. AODA also references the WCAG as standards” (Toledo, 2018: 157).

Accessibility Studies are at the core of AVTS and TS itself, thus they represent the tools through which everyone will be able to become fully independent, yet equally included, in society. As Greco (2019:21) well affirms: “AS is the research field concerned with (a) the critical investigation of accessibility processes and phenomena, and (b) the design, implementation and evaluation of accessibility-based and accessibility-oriented methodologies”. It is imperative to keep in mind the great help that both Media and Web Accessibility represent to the public, thus it reduces useless barriers and facilitates the transmission of information among people. Indeed, accessibility leads to a more inclusive society, where everyone can finally access information equally and independently. As

Richart-Marset and Calamita (2020: 12) say, all the subareas of Accessibility Studies, “with the sole objective of creating an increasingly inclusive society, [are] oriented mainly to serve diversity, attending not only to the linguistic and sensory barriers of the community of users, but also keeping in mind the cognitive barriers”. This opinion is also shared by Oncins and Orero (2020: 73), who affirm

“These days, accessibility is moving away from exclusive approaches towards a democratic participative society looking for diversity and inclusion (Taylor 2017). This accessibility state of the art is also reflected in standardisation, where, for example, the Spanish UN media accessibility standards have the rights and exclusive approach to Subtitles for the Deaf (UNE 153010:2012) Audio Description for the Blind (UNE 153020:2005)”.

Accessibility is not limited to the screen, big or small, it concerns all aspects of everyday life, live performances, such as theatrical plays or live concerts. Over the years, some solutions were found to render these performances more accessible to everyone, such as surtitling plays or sign-language interpreting for PWHI, while people with visual impairments can use audiodescriptions. However, these solutions cannot always be provided to the audience, due to time, cost, or technology issues. As for time, synchronization is a key factor for the audience to be able to enjoy a live performance, but it cannot always be assured due to technical problems or possible delays, not to mention unexpected improvisation.

“Synchronisation of subtitles with both sound and image is essential if the viewer is to have an enjoyable experience. Asynchrony between the sound and subtitles in the form of delays, inherent in live subtitled programmes, is the biggest source of frustration for subtitle users according to the British association Action on Hearing Loss (2018). Unlike in live subtitling, where latency is of the essence, synchronicity for pre-recorded programmes is a variable mainly controlled by the subtitler, except in instances of technical faults in broadcast transmission. Generally speaking, the in-time of the subtitle should coincide with the start of speech and the out-time with the end of the speech segment”. (Zárate, 2021:54)

Live performances often imply great costs, due to the fact that during the show there has to be at least one person in charge of each step of the surtitling/audiodescription process, which is why accessibility is not always assured at live performances. Finally, the technology to produce surtitles in live productions (Burton 2009, Matamala and Orero 2007, Weaver 2010) has only recently been developed.

Although Media Accessibility is not limited to the big, and/or small, screen, it is important to pay attention to the great increment in the production of audiovisual content happening in the last few years, which also implied a shift of platforms where such content was published. Bolaños-García-Escribano et al. (2021: 04) shed light on this topic:

“The production and distribution of multimedia content has grown exponentially, while the trend these days is for contemporary audiences to watch online videos on demand on streaming platforms rather than on more traditional outlets like TV stations. This boom in production has been reflected in a commercial upsurge of translation activity, primarily led by so-called over-the-top (OTT) players like Netflix, Amazon Prime Video, HBO Max, Apple TV+, and Disney Plus that sell their titles to numerous new markets. As a case in point, in 2019, 106.1 million (63%) out of 167.1 million Netflix subscribers were registered outside of the US (Iqbal 2020), demonstrating that AVT and media localisation services are true catalysts of growth for the entertainment industry.”

While, in the past, watching an audiovisual could only happen via television or at the movies, nowadays more and more people subscribe to online platforms, enjoying the freedom of watching their favourite audiovisuals whenever they want on any device they want. The audience is not chained to the timetable of their national television anymore, nor do people have to pay for cable TV in order to enjoy multimedia productions. As Bolaños-García-Escribano et al. (2021: 04) explain, “[...] in their efforts to attract a larger number of subscribers, most of their audiovisual productions are subtitled and/or dubbed in various languages, with many also including SDH and AD for the people that are hearing and visually impaired, respectively”. Although not all streaming platforms provide SDH, subtitles and audiodescriptions, nor do all of them offer the same possibilities to customize their subtitling services, all OTT platforms do provide at least one subtitling option (either SDH or subtitles). ‘OTT’, or ‘Over-The- Top’ “is a means of providing television and film content over the internet at the request and to suit the requirements of the individual consumer. The term itself stands for “over-the-top”, which implies that a content provider

is going over the top of existing internet services (Telestream 2021: What does OTT really mean?. Accessed 01/09/2021). By adding at least one subtitling service, these online platforms are widening their audiences, because they are able to provide a service that renders their platform more accessible with it.

As Accessibility is becoming increasingly recognised as valuable and necessary, many OTT platforms are implementing their subtitling services by increasing the accessibility options available on their websites. For example, Amazon Prime Video offers the possibility of customizing the colour and the background colour of its subtitles, as well as the font size in which they appear on the screen. By providing these options, those people in the audience with visual impairments are given the chance to improve their audiovisual experience. If the audience were allowed to customize some of the features of the subtitling services provided on their national television, such as the font size or the colours, like on Amazon Prime Video, they could adapt the subtitles to their liking and needs, which would make them more accessible.

1.2 Hypotheses

As mentioned above (page 12), the DHH are not the only people in the audience who benefit from the use of SDH, although this service was originally designed to provide media accessibility to the Deaf and Hard-of-Hearing. As a matter of fact, SDH represents a great tool for many more viewers as well, like for example people with cognitive impairments, the elderly, foreigners, people with more than one impairment or individuals who cannot properly access a multimedia production due to environmental reasons. Since the audience does not consist of a homogeneous group of people, but it includes individuals with different profiles and needs, SDH should provide media accessibility to as many people as possible, without ever forgetting the main group of viewers they are designed for: the Deaf and Hard-of-Hearing.

This PhD project presents the following hypotheses:

1. DHH are able to grasp the content of audiovisual productions—i.e., advertising, short movies or feature movie production—without the use of subtitles.

In order to interact with the rest of the world, the Deaf Community relies a lot on their vision (page 31), however their deafness does not affect their ability to understand the multimedia productions that they are watching, as audiovisuals consist of both a verbal and an acoustic channels. The DHH audience are able to perceive and analyze the visual elements on screen and, in so doing, they are able to assimilate the meaning of audiovisual productions.

“In the audiovisual translation field, it is long widely accepted that audiovisual products are multimodal and multisemiotic products that construct meaning

through the interaction of two channels (acoustic and verbal) and their signifying codes (Delabastita 1990; Chaume 2004; Gambier 2013). Audiovisual texts, thus, are not conceived as the mere addition of those channels and their signifying codes, rather their meaning and identity arise from the interaction and cohesion of all acoustic and visual elements of a film. [...] DHH people have limited or no access to one out of two information channels and five out of the eleven signifying codes [...]. But they do not only lack access to half of the film, rather more than half, as they cannot have full access to the cohesion and coherence of the acoustic channel and its signifying codes with the visual channel and with the plot of the film". (Tamayo, 2017b: 01)

2. Hearing and DHH communities alike both can benefit from a short description of an audiovisual before watching it.

In order to decide which multimedia production to watch at any given time, reading the plot of audiovisuals could help the audience realize whether they would enjoy a certain TV program or not. Many well-known OTT platforms, like Netflix, Amazon Prime Video or HBO, offer a short description of all their audiovisuals to give the viewers the opportunity to discover the genre, the duration and the content of each program before watching it. In addition to the plot of their audiovisuals, some online streaming platforms, Netflix for example, provide the audience with a short trailer, or with a selection of the scenes of each program to further help the viewers make their choice. Reading the plot of any audiovisual before watching them is not a new trend, as cinemas have been providing the audience with information regarding the programs offered by them for years.

3. Hearers and DHH both can benefit from additional information to help with particularly difficult expressions or words just as they are about to watch an audiovisual with such (assumed) difficulties for the viewer.

As illustrated by Díaz-Cintas (2003a: 195) on page 34 of this dissertation, sometimes audiovisuals can be difficult to fully comprehend by the people in the audience, even for those whose mother tongue is used in the multimedia production of their choice. The reason behind this lies in the obstacles that the audiovisuals might entail, as for example the "lack of explanatory feedback" that could help the audience to better understand the multimedia production that they are watching. Therefore, if the audience would have the possibility to discover the meaning of the words, or the expressions, that they are not familiar with, the comprehension of the audiovisual would be much easier for the viewers.

4. Hearers and DHH both can benefit from the identification of background sounds, music, noises and voices in any multimedia production through a short description of them in the subtitling services, or through the inclusion of emoji and icons as visual representation of the background sounds.

Over the years, SDH has been proven to be an extremely effective subtitling service that does not benefit the Deaf Community only, but a much greater audience too as mentioned on page 1. For Romero-Fresco (2018: 189), among the users of SDH there are DHH people, people with sensory disabilities, people with learning disabilities, foreigners and the elderly, among others. SDH represents a great tool for all those individuals who cannot

properly access an audiovisual production due to personal and/or circumstantial situations. For example, SDH can be very helpful for people with impairments, but also for hearing people who cannot access the sound of a movie due to loud noises caused by the environment they find themselves in. Furthermore, since the use of emoji and icons has been increasing a lot in the past decades, especially in writing text messages via phone or as additional reactions in social media, emoji and icons could be included in SDH in order to reduce the length of the subtitles on screen by substituting some sounds—like a phone ringing in the back—or an unclear emotions of a character (see page 30).

5. Hearers and DHH both can benefit from a customizable subtitling service—i.e., from the possibility of modifying the size, the speed and the colour of the subtitles to the preference and the need of the audience.

SDH is a tool that greatly simplifies the access to audiovisual content for a large number of people, however the subtitling service does not allow the audience to customize its font size, its speed or its colour and background colour. As previously mentioned (page 12), not everyone in the audience has the same needs when it comes to enjoying a multimedia production, as there are PWHI, people with visual impairments, people with cognitive impairments, foreigners, elderly, children and so on. Furthermore, as discussed in Hypothesis 4, SDH provides access to audiovisuals for people with personal and/or circumstantial situations that do not allow the viewers to properly access the multimedia content of their choice. There are people with one impairment, but there are also people with more than one impairment, as in the case of PWHI and

visual impairments. In this case, for example, it would be quite helpful for the audience to be able to customize the colour and background colour of the subtitling services at their disposal. The same could be said for other people in the audience who cannot properly access the information provided by the SDH, because of its font size or speed. This is why it would be extremely important to allow the audience to customize their subtitles to their needs. As a matter of fact, some OTT platforms are already giving their viewers these options. Amazon Prime Video allows its audience to customize the font size as well as colour and background colour of its subtitles, while Netflix gives the viewers the possibility to customize the speed of its SDH services.

If such assumptions turn out to be true, the results obtained would be a great help in the process of SDH production for Spanish audiences in order to improve the accessibility to audiovisuals of all the people in the (Spanish) audience. Although multimedia productions turn out to be understandable to the DHH even without subtitling services, that would not mean that the d/Deaf do not benefit from them, since SDH services represent a great tool to access the audiovisuals in their entirety. Furthermore, if these hypotheses were to be proven correct, it would be easier for experts in the field to make decisions regarding the inclusion or exclusion of more (or less) specific information, such as the explicitation of details whose nature would be otherwise already clear to the audience.

These five hypotheses are tested through a three-phases-study, which consists of two surveys distributed among the Spanish audience and one comparative analysis of the subtitling services provided by three well-known online streaming platforms during three specific multimedia productions. This research study does obviously not represent the

exact opinion on this topic of the entire Spanish audience, but it certainly serves as a helpful tool to be taken into consideration in the field of AVTS.

1.3 Research goals

As stated above, this PhD project bases itself on five hypotheses (pp. 16-17), which are tested through a three-phases-study that consists of two surveys distributed in Spain and one comparative analysis of the subtitling serviced offered by three OTT streaming platforms. If this research project would confirm the hypotheses above-mentioned (pp. 16-17), the results retrieved in this study would be beneficial for the design of SDH in the future and they would improve the media accessibility for the (Spanish) audience.

The research goals of this PhD study are the following:

- O1: Provide an overview of the effectiveness of the Standard UNE 153010:2012 in Spain through a first survey, which will be answered by both hearers and d/Deaf informants.
- O2: Provide a comparison of the SDH available on the Spanish Digital Television and the Spanish Audience's requests retrieved in the first survey.
- O3: Prove the validity of the Standard UNE 153010:2012 for the Spanish Audience through said survey.
- O4: Provide a comparative analysis of the subtitling services offered on three well-known OTT platforms (Netflix, Amazon Prime Video and HBO) to highlight similarities and differences among them.
- O5: Provide the Spanish Audience's opinion on some of the features of the Standard UNE 153010:2012 through a second survey, which will be answered by both hearers and d/Deaf informants. The questions of the second survey will be based on the data retrieved in the previous two studies.
- O6: Provide a list of criteria for translators in the creation of future *Inclusive Subtitles*, based on the results obtained from all three studies.
- O7: Transform the survey of Part I of the PhD project into a quantitative method for other researchers to use.
- O8: Open a new door to the world of the Deaf and the HoH in a new and direct way by scholars and translators.
- O9: Validate the hypotheses set out on page 16 ('1.2 Hypotheses').

Accessibility in audiovisual translation represents a great tool for the fulfilment of human rights and it must be pursued, also because it is not only a great help for PWHI (page 4).

“Subtitles have proven to enhance a second language acquisition, in part because they are linked to an enjoyable activity that can make language learning incidental, as it is in natural language learning” (Tamayo, 2017b: 79). Moreover, as Neves (2008) states, accessibility does not guarantee quality: indeed, “100% subtitled programmes may, in practice, not mean 100% accessibility. If quality standards are not met, then figures alone say very little”, says Neves (2008: 138) and then she declares, “Quantity loses its validity when *quality is not guaranteed* and when compliance is only measured in terms of the number of programme hours to be covered by accessibility services” (Neves, 2008: 138).

This PhD research aims to achieve its objectives because translators, researchers and stakeholders should make the Deaf Community an active part of the elaboration of SDH. As Ofcom (2015: 01) clearly states ‘television service providers should promote the enjoyment and understanding of their services for people who are deaf or hard of hearing amongst other things’. In order for the entire Spanish Audience to properly enjoy the multimedia content offered on the Digital Television, further research is required with the collaboration of the viewers, the audience itself.

Researchers of Translation Studies have always highlighted the great influence the target readers—who, in Audiovisual Translation are ‘the audience’—in their jobs, being as they are the ones who will finally evaluate the translations made. However, this procedure still needs to improve. Tamayo (2017b: 78) states that “We need to explore the different preferences and expectations of the audience to offer different subtitles for different needs”. First of all, scholars and researchers need to distinguish between subtitles addressed to hearers and subtitles created specifically for audiences with impaired hearing. While the former are intended for an audience with no disabilities, the latter will obviously convey additional information to the final subtitles.

“[...] the biggest difference between the SDH and the subtitles for hearers is that alongside with the dialogue, there is all paralinguistic information, such as sound effects, soundtrack noises and other acoustic signs that are not visible but audible to a hearing audience. This information is usually shown between brackets”. (Toledo, 2018: 148)

Subtitling for the Deaf and Hard-of-Hearing has been greatly improved over the years, especially thanks to the creation of SDH, chosen over Teletext, and by continuously increasing the number of hours of subtitled programs per week. However, there has not been enough focus on one big share of the actual receivers of this service, i.e., the Deaf Community.

As mentioned above, the Deaf Community is a minority in our society, therefore it is the majority’s duty to provide the Deaf Community with the same accessibility to society as the rest of the population, for them to be able to actively contribute to a service they are also respondents to. SDH is a field of research that could greatly benefit from a collaboration with Accessible Filmmaking (AFM), due to the reciprocity of the needs of both areas, with the ultimate goal of developing a new school of thought towards progress and equality and towards even more inclusive subtitling services.

2. THEORETICAL FRAMEWORK

Many studies have been carried out in the field of AVT for the DHH and even though much has been discovered, there is still so much left to be explored and improved.

“At the end of the 20th century we witnessed the birth of two genres of audiovisual translation-audio description and subtitling for d/Deaf, which, although they existed previously and were used by their recipients in restricted media (associations and clubs), ‘became visible’ through their generalization as public services of some television channels”. (Neves, 2007: 96)⁵

This section provides a general overview of the theoretical aspects in the fields of Deaf Studies, Audiovisual Translation for the DHH and Media Accessibility as a necessary background for the basis of this research study.

2.1 Deaf Studies and Deaf Culture

It is crucial to recognize the distinction offered by Neves (2008: 129) between the ‘deaf’ and the ‘Deaf’: the former is a label for someone whose mother tongue is an oral language, while the latter is for someone who uses sign language as their first language. Furthermore, Neves uses the locution ‘hard of hearing’ to describe those people who have residual hearing.

From a medical perspective, Szarkowska (2017) explains that the possible causes of deafness can be grouped into four categories: 1. Conductive deafness, a type of deafness that may be temporary if cured and generated by an ear infection or by an excessive amount of cerumen; 2. Sensorineural deafness, a permanent and possibly progressive form of deafness 3. Mixed deafness, a type of deafness that has both conductive and sensorineural components; 4. Auditory neuropathy/auditory dyssynchrony, caused by an improper transmission of sound from the inner ear to the auditory nerve or to the brainstem.

Moreover, deafness types can be according to prelingual, postlingual or Hard-of-Hearing (HoH) people. Not everybody who is d/Deaf has the same hearing difficulty, nor do they have the same reading abilities or knowledge about the world. For example, postlingual people have lost their ability to hear later on in life, which means that prior to deafness, they acquired language skills, and their experience of the world might be consequently different from the one prelingual people have. Therefore, the way people with prelingual

⁵ Original version: “A finales del siglo XX asistimos al nacimiento de dos géneros de traducción audiovisual-la audiodescripción y la subtitulación para s/Sordos-que, a pesar de que existían con anterioridad y eran utilizados por sus destinatarios en medios restringidos (asociaciones y clubes), pasaron a ‘hacerse visibles’ gracias a su generalización como servicios públicos de algunas cadenas televisivas” (Neves, 2007:96). Translation provided by PhD candidate Roberta Cepak.

deafness (whose hearing impairments affects them before language acquisition) see and experience the world might be different from the way postlingual deafness (whose hearing impairments affected them later in life) affects others, as well as HoH people, with a distinct sense of life and sounds, due to their previous knowledge of—oral and written—language as well as with regards to their opportunity to experience sounds, including music. Nevertheless, it is imperative to keep in mind that

“[...] what is significant is how deaf community members relate to each other and how they communicate with each other. The use of vision rather than audition to communicate, most often using sign language, is integral to their daily living (Andrews et al., 2004). Many wear hearing aids to alert them to environmental noises at the very least, but audition is still not primary in their lives. While some value their previous speech and auditory therapy to maximize spoken English abilities, others may experience such exposure as stressful and potentially inadequate in providing them with functional expressive and receptive spoken English skills (Bain, Scott and Steinberg, 2004)”. (National Research Council, 2005: 166)

Not everyone who is d/Deaf experiences the world in the same way. When watching an audiovisual production, each member of the Deaf Community aims their attention at various aspects and maybe, while some details are considered less important by a prelingual person, they could be seen as extremely relevant by a postlingual person or vice versa. The reason behind this lies in the fact that prelingual d/Deaf experience the world differently from HoH or postlingual d/Deaf, due to their need to pay closer attention to the facial expressions of the people they are talking to in order to fully understand the content of a conversation or to grasp the feelings conveyed by their interlocutors, for example. Hearers may not focus on the characters’ facial expressions as much as the Deaf Community, given their ability to hear the voices and the sounds present in the audiovisual productions. The same happens when DHH individuals speak with each other, as they tend to pay closer attention to the facial expressions and to the gestures of their interlocutor, while hearing people do not necessarily need to focus on someone’s face when speaking to others. As Findlater et al. (2019: 02) explain,

“To converse with partners using spoken language, people with hearing loss use a variety of strategies, including gestures and two-way note taking (Hallam & Corney, 2014). Speechreading combines body language, facial expressions, situational cues, and any auditory input that is available to understand parts of oral conversation (Lee, 1997).”

When two—or more—individuals talk to each other, the language they choose to use is not the only element that allows them to understand the content of their conversation, as many other factors are involved in the communication process. Indeed, the interpretation of facial expressions, body language and gestures used by the interlocutors play a very important role too. The common pattern among the d/Deaf is the difficulty in following a conversation between people interacting through spoken language or even in hearing a

louder sound. For a person with hearing impairment the simple act of watching audiovisual productions may represent a great obstacle not only because of their deafness, but also because of the lack of subtitles that satisfy their needs. Indeed, the d/Deaf audience presents special needs with regards to subtitles. Ivarsson and Carroll (1998: 132) point out that postlingual DHH show a lower amount of comprehension difficulties compared to the prelingual d/Deaf audience, which may be due to the skills that postlingual DHH individuals developed as hearing individuals in oral language before experiencing deafness. Neves and Lorenzo (2007: 104) specify that, while subtitles for the DHH are created for this great heterogeneous audience—among which each d/Deaf individual may have different needs and language(s) skills—, quite often prelingual d/Deaf see sign language as their first language and reveal great difficulties when approaching the oral language and everything that this conveys with particular focus on their reading and writing skills.

Not everyone in the audience has the same comprehension skills when it comes to reading and understanding subtitles. For this reason, the DHH audience could be offered two types of subtitling services: 1. A SDH service meant for everyone in the audience, called ‘Inclusive Subtitling’, which should be designed for DHH viewers with no alteration of the language used; 2. An Easy-To-Understand (E2U) SDH service, which could involve the use of both the Easy Reading (ER) language and/or the one of Plain Language, as suggested by the European project Easy-Access-for-Social-Inclusion-Training (EASIT), which “focuses on easy-to-understand language in audiovisual media”:

“The purpose of EASIT is to define the professional profile of experts in content that are easy to understand, content that is carried out through the easy-to-read language (the language that is easy to read and understand) and the plain language (simplification), and that they are designed to ensure an accessibility service that produces or adapts texts so as to facilitate their reading and understanding by all users. Although the production of easy-to-understand content was in the past mainly applied to written texts, EASIT will also consider its integration into audiovisual content, including for example in the accessible contexts of audio description for the blind (in which the visual elements are rendered through words in favour of those who do not have access to the visual sphere) or subtitling for the deaf (aimed at those who have difficulty understanding the spoken language or cannot hear it)” (EASIT: Easy Access for Social Inclusion Training. Accessed 06/01/2022)⁶

The use of ER language in the design of SDH services could help improving the media accessibility of those individuals in the audience, who are struggling with the

⁶ Original version: “Lo scopo di EASIT è definire il profilo professionale degli esperti di contenuti semplici da capire, contenuti che si espletano attraverso la easy-to-read language (il linguaggio facile da leggere e da capire) e la plain language (la semplificazione), e che sono pensati per assicurare un servizio di accessibilità che produce o adatta i testi in modo da favorirne la lettura e la comprensione da parte di tutti gli utenti. Sebbene la produzione dei contenuti semplici da capire venisse in passato applicata principalmente a testi scritti, EASIT ne considererà l’integrazione anche in contenuti audiovisivi, inserendola per esempio nei contesti accessibili dell’audiodescrizione per i ciechi (in cui gli elementi visivi sono resi attraverso le parole a favore di chi non ha accesso alla sfera visiva) o la sottotitolazione per sordi (rivolta a chi ha difficoltà di comprensione della lingua parlata o non la può sentire) (EASIT: Easy Access for Social Inclusion Training. Accessed 06/01/2022)”. Translation provided by PhD candidate Roberta Cepak.

understanding of the subtitling services currently offered. As Matamala and Orero (2018: 68) explain: “Originally focused on printed texts and addressed to persons with reading difficulties or cognitive disabilities, ER can actually benefit all types of users. It can also be expanded to other formats, such as audiovisual content, by importing or adapting ER guidelines into other access services and formats”. Nevertheless, the use of ER language could represent an addition to the SDH services, as the audience should be able to choose between ‘Inclusive Subtitling’ and ER SDH, depending on their personal needs and preferences.

Another key element that is usually missing in multimedia productions is the representation of the Deaf Community. Luis Pérez González (2014) sheds light on this topic and he explains that minorities all over the world enjoy watching multimedia productions because it makes them feel like they belong to society as well. As a matter of fact,

“For oppressed communities all over the planet, global satellite and cable TV broadcasts are a unique opportunity to engage with representations of democratic life or public expressions of sexual identity that they subscribe to and identify with. For sensory impaired members of the community, access to media content enables their aspiration to be valued equally and to experience full inclusion in society”.

Representation through media allows the viewers to see themselves reflected in them and to share the same values and culture as everyone else, which reveals a sense of belonging and acceptance of oneself. As Molano (2007: 73) explains: “The concept of cultural identity encompasses a sense of belonging to a social group with which cultural traits, such as customs, values and beliefs, are shared. Identity is not a fixed concept, but is individually and collectively recreated and continuously fed by external influence”.⁷ It is essential for the d/Deaf to see themselves, and their culture, represented in the media as well as everyone else, in order to acknowledge the existence of d/Deaf people all around the world and to see Deaf Culture being shared with other individuals everywhere.

Every community has a culture, and the Deaf Community is no different. For Neves (2005: 85)

“Unlike many other minorities that may define their circle within a geographic boundary, forming a visibly defined group (through codes of dress, behavior and speech), the Deaf are spread, for deafness can affect anybody whether born within a particular Deaf culture or not. Many deaf children are born into hearing families and deaf parents do not necessarily give birth to deaf children. Even though many Deaf people marry within their group, more often than not, they come to interact with hearing communities and are forced to adjust themselves to the codes of the majority (hearing) often forcing themselves to less “natural” codes of civilization. This inevitable tension between socializing with hearing and among themselves

⁷ Original version: “El concepto de identidad cultural encierra un sentido de pertenencia a un grupo social con el cual se comparten rasgos culturales, como costumbres, valores y creencias. La identidad no es un concepto fijo, sino que se recrea individual y colectivamente y se alimenta de forma continua de la influencia exterior” (Molano, 2007:73). Translation provided by PhD candidate Roberta Cepak.

may account for the fact that the Deaf community is to be looked upon as being a “speech community”.

Although Deaf Culture has been recognized as valid as any other culture, its acknowledgement is a rather recent phenomenon, which explains the lack of its representation in the media. As Morgan and Kaneko (2019: 02) state

“It started in the 1970s/80s with the recognition of sign languages as fully- fledged languages, stipulated by William Stokoe’s (1960) publication on the structure of ASL. Until that time, deaf people were viewed from a medical perspective as people with problems that needed to be fixed. [...] Since the 1980s, however, this view has started to change, and deaf people are seen more from a social perspective as a linguistic and cultural minority. In the early 2000s, the term “deafhood”, coined by Ladd (2003), became widely known among deaf people and those working in the field of deaf studies. This term refers to the journey each deaf person goes through in order to find his/her place in the world as a deaf person, usually through meeting and interacting with other deaf people and learning the values of the deaf community.”

As mentioned in the statement above, Deaf Culture has been acknowledged only recently, while for many years the d/Deaf were seen as disabled individuals whose hearing impairments was something to be fixed. However, as Broesterhuizen (2005: 304) explains, this is not the case anymore, as the “[...] modern Deaf people [...] do not see themselves as impaired versions of people with normal hearing, nor as people with a disability or a challenge, but as a minority with its own language and culture. They do not want to define themselves in terms of a thing they lack, but in terms of the positive aspects of their language and culture”. This statement is shared by Connolly (2019: 76), who states that

“[...] the Deaf do not consider themselves disabled or even impaired, but rather assert a political and social identity as a cultural and linguistic minority in the hearing-dominated world. The overarching expression of Deaf identity and culture is sign language—thus the Deaf are a minority linguistic community—and the right to use sign language in mainstream culture is a political act (Humphries and Padden 142). The recognition of sign language as a legitimate language is essential, given the historical bias of trying to “assimilate” the deaf into hearing society through oralist methods, such as teaching the deaf exclusively to speak through sound production and to lip read, and often discouraging the use of signs”.

Nevertheless, it is important to note that not all individuals with hearing impairments are part of the Deaf Community. It is up to each d/Deaf individual to discover their personal sense of belonging to either the hearing community, the Deaf Community, to both communities or to none of them. As explained by Korte et al. (2017: 136)

“[...] cultural membership is not passed from (hearing) parents to (deaf) children, as is the case in other minority subcultures. Instead, membership of the Deaf community must be deliberately sought by parents (on behalf of their children) or the children themselves as they age (Hyde et al., 2011; Johnston & Schembri, 2007).”

The Cry of the Gull, by Emmanuelle Laborit, represents a great introduction to the Deaf Culture, thus it describes the life of the author being affected by prelingual deafness in a time when sign language was forbidden and Deaf Culture was far from being recognized as one. Laborit’s book is a very passionate and intriguing piece of art, of which the author is also the protagonist, describing her own life experience from her first days in this world till she finally succeeded as a French Deaf actress. Her book reveals the struggles and battles she and her family went through once her deafness was discovered and the life choices that came with it. Being Deaf did not stop Emmanuelle from becoming the remarkable actress she was destined to become. In her book, she also mentioned the great importance music and books had in her life. In fact, many are the stereotypes regarding the impossibility for the Deaf to feel and experience music, while Emmanuelle states

“I was lucky to have music when I was a child. Some parents of deaf children think it’s pointless, so they deprive their children of music. And some deaf children make fun of music. I love it. I feel its vibrations. The visual spectacle has an impact on me, too. The people in the concert hall, the lighting effects, the atmosphere are all part of the vibrations. [...]. And I can imagine the sounds. I’ve always imagined them. I perceive music through my body, with my bare feet on the floor, latching onto the vibrations”. (Laborit 1998: 17)

Music can be experienced by the d/Deaf too, in their own way and it is of primary importance not to limit the potential of these people by deciding what is important for them to know, or to learn, or not. This argument applies to the captioning and subtitling too, as Zárate affirms (2021: 75). Indeed, the scholar states that living with hearing impairments should not impede anybody from appreciating—or even from having access to—music. For her, the translators working in the field of AVT should provide accessible subtitles for two types of audiences: for the ones who already had access to music before their hearing impairments appeared, and for those who were born prelingually d/Deaf, who could one day become very interested in music, just as much as any other hearing person. Whether there should be one, or more, type(s) of subtitles, the presence of music should always be acknowledged in the subtitling services of any audiovisual production, as the presence—or absence—of music represents a valuable information in the understanding of any audiovisual content. Neves (2010: 124) states that “According to Blandford et al. (2001: 156) the primary function of music in films is to provide emotional support to the story, a notion that is shared by Kivy (1997: 322), who underlines that ‘music warms the emotional climate.’”

With regards to the Deaf Community and their culture, *The Cry of the Gull* is a life changing book for everybody who wants to work in SDH, because of the different perspectives it offers to the members of the Deaf Community and to their needs. For example, Laborit emphasizes the importance of sign language in the life of d/Deaf individuals with regards to their possibility to communicate with the world and with

themselves. Indeed, highlights the great changes she experienced once she started learning her first true language, because it became the door towards the written and spoken language too:

“What’s more, sign language helped me process important information – concepts and thoughts. Writing became easier and so did reading. [...] When I read a novel, I instinctively associate the corresponding sign with the word I’m reading. Then I can read the word more easily on people’s lips when they pronounce it.” (Laborit, 1998: 115)

This sample shows that it is not impossible for the d/Deaf to learn how to read and write, not even for prelingual d/Deaf, who are nowadays clearly still struggling and their level of proficiency in these skills cannot be the same as that of hearing people. Schwartz (1996: 90) declares that to educate children with hearing impairment by introducing them to both their national sign language as well as their national spoken language would mean “[To] help deaf children establish a strong visual first language that will give them the tools they need for thinking and learning and to develop a healthy sense of self through connections with other deaf people”. Neves (2005: 89) highlights Cummings’s opinion (1979) and quotes: “It is believed that a solid acquisition of a sign language will reflect itself in an overall improvement in academic achievement. It is also believed that proficiency in a particular (sign) language will lead to successful acquisition of a second language in written form”. This is also confirmed by more recent literature, which

“[...] suggests that early exposure to sign language bolsters development across the board for deaf and hard of hearing children. Deaf and hard of hearing children with early sign exposure (regardless of what language they are focusing on producing or assistive technologies they use) have cognitive abilities on par with typically hearing peers (e.g., Hall et al., 2018; Dostal & Wolbers, 2014)”. (Carrigan & Coppola, 2020: 72)

Early exposure to sign language is imperative for the correct development of the cognitive abilities in d/Deaf children. Nevertheless, attention shall be paid to the struggles, as well as the options, the d/Deaf have when facing written language. Laborit states that “As a general rule deaf people don’t read very much. It is hard for them. They mix up the principles of oral and written expression. They consider written French a language for hearing people. In my opinion, though, reading is more or less image-based. It is visual. But it depends on your training” (Laborit 1998: 120). This is strongly connected to the relevance emoji and icons could have in SDH, as Civera and Orero (2010) already proposed as integral part of the subtitling services available in Spain.

“Since the emoticons have been developed and increasingly adopted and nowadays millions of users resort to emoticons to express various moods and feelings. Thanks to online chat programs, blogs and text messaging, people are getting used

to expressing themselves, using emoticons and pictograms such as the following: ☺ (happiness), ☹ (sadness)". (Civera and Orero, 2006: 151)

There are many icons and emoji in use and, almost a decade after this study, this reality has not changed at all. In fact, sometimes teenagers can hold an entire conversation by simply exchanging emoji and icons back and forth. This is present-day reality, a reality that is no different when comparing hearers and the d/Deaf, which could be a great advantage in the creative process of SDH. Digital facial expressions and image representations could be added in the subtitling services each time a new character appears on the screen, or there is a particular sound in the background (a ringing phone, for example). This way, emoji and icons could be used to reduce the loss of information in the subtitling process. If the d/Deaf audience started to become familiar with the use of emoji and icons, there would obviously be more space on screen left for the actual subtitle and the information would be faster to deduce too. Although the meaning of certain facial expressions and body language is sometimes easy to presuppose, there are times when the characters are talking in the dark or they are giving their back to the camera as they are speaking. Other times, the icon of a ringing phone could save a lot of space for the subtitle. These are the cases where emoji and icons would represent an innovative, useful solution to the problem.

"In today's Western society we are surrounded by icons and pictograms which are the elements of efficient, and almost universal, semiotic communication. There is no need for any written message to understand what most symbols mean, although there are still some exceptional cases, in which the message is not always clear. However, on the whole, when symbols are used, they are used with the aim of optimising the reception of the message. Hence, a symbol can be powerful too when thinking of ways to offer information in a synthetic manner".
(Civera and Orero, 2010: 149)

Civera (2005) states that "Internet and mobile phone users are accustomed now to understanding symbols which represent feelings, moods or even opinions. Using these types of symbols in conjunction with subtitles would be a possible solution". Obviously, such subtitles should not be substituted entirely by sentences made up of emoji or icons, but translators could simply make active use of this international language in an attempt to reduce space used unnecessarily in subtitles that could be kept to a minimum, as in the case of the ringing telephone icon. Civera and Orero (2006: 156) declare, "Icons can represent almost anything, and to enhance subtitle reception we would like to propose three possibilities: the use of icons to represent the sound context, the use of icons to represent characters, and the use of icons to represent the characters' moods".

"Younger researchers, such as Sala Robert (2014) and Al Taweel (2015) have experimented with cartoon speech bubbles or emoticons to capture paralinguistic features of speech; and Nanayakkara and his team have tested a 'haptic chair' and

a computer display of informative visual effects' to convey music to deaf viewers (Nanayakkara et al. 2013: 116)". (Neves, 2018: 88)

As explained above, paralinguistic features of speech could be represented in cartoon speech bubbles or through the use of emoticons, which could help reducing the number of words used in subtitles in the future, thus rendering the task of reading subtitles easier and faster for all viewers. This way, the audience could pay greater attention to the scenes and less on the subtitles. With regards to the proposal made by Nanayakkara and his team to use a 'haptic chair' to convey the presence of music to DHH viewers, it seems like this idea could be implemented in theatres and cinemas.

As Neves (2005: 93) well affirms, "deaf people are not different from hearers in their language learning capacities and needs. The only distinction lies in the fact that they might not process oral language through hearing; however, they can make up for their loss by relying on their vision, and language becomes visual once it is conveyed through observable sign/signals". If the d/Deaf rely on their eyesight, they might become more competent than any hearing persons in their viewing competences. Consequently, the need for the d/Deaf to rely on their observational ability will be a great help in understanding the situational context they find themselves involved in every day.

The d/Deaf have an extraordinary ability to connect among each other and with the rest of the world, because they are forced to face it in order to hear it. Laborit (1999: 24) explains how she used to comprehend communication between hearers before sign language in these terms:

"When there are people, I look at their faces a lot. I look at all the tics, all the habits of people. There are people who don't look at their table interlocutor while talking. They play with the cutlery. They touch their hair. They are images that do things. I can't tell what effect it has on me. I see. I can see if they're happy or not. I can see if they're upset. Or if they don't listen to others. I have eyes to understand, but I find it limiting. I can see that they communicate with each other with their mouths; the difference between me and them must lie there. They make noise with their mouths. I don't know what noise is. Nor silence".⁸

These words describe the relationship between the d/Deaf and communication, a relationship that is based on seeing to be able to hear others and what surrounds them. If seeing is the only way for the d/Deaf to interpret such messages, and to produce them, the connection between the d/Deaf and hearers, and between the d/Deaf, could be much more intense. If two d/Deaf people do not look at each other, they cannot have a conversation, which leads to the obvious conclusion that this type of relationship must be deeper and

⁸ Original version: "Cuando hay gente, miro mucho las caras. Observo todos los tics, todas las manías de la gente. Hay gente que no mira a su interlocutor de la mesa mientras habla. Juegan con los cubiertos. Se toquetean los cabellos. Son imágenes que hacen cosas. No puedo decir el efecto que me causa. Veo. Veo si están contentos o no. Veo si están disgustados. O si no escuchan a los demás. Tengo ojos para comprender, pero resulta limitado. Veo que se comunican entre ellos con la boca; mi diferencia debe de radicar ahí. Ellos hacen ruido con la boca. Yo no sé lo que es el ruido. Y tampoco el silencio" (Laborit, 1999:24). Translation provided by PhD candidate Roberta Cepak.

fuller than one between hearers. As Laborit explains above, sometimes hearers have a conversation without paying (visual) attention to each other; while talking, they check their phones they move around or they speak by turning their backs on each other, which makes it much easier to ‘escape’ from problems and realities otherwise clear and certain to a d/Deaf person. In point of fact, it is of primary importance to highlight the great sensitivity of the Deaf, who are enriched by their deafness, which makes them perceive the world on a different, deeper level. Deafness does not allow them to hear, but it does allow them to understand the world in a peculiar way. Therefore, sometimes adding extra information within the subtitles reveals itself as an alteration “of the intended pace or cut down on the tension” (Neves 2009: 161). There are no clear rules on whether to always describe the whole situation or to leave some details unsaid not to deprive the audience from any further surprise.

“What is conveyed through subtitles is never *the* message but a possible version of the message and special care needs to be taken so that nothing can contradict that particular version. It is easy for the image to add, confirm or even contradict the verbal message conveyed. For Deaf audiences, who depend on visual cues to assist language decoding, special care needs to be taken so that subtitles may be truly complementary and so be seen as a part of the whole, never as obtrusive, or even cumbersome, add-on”. (Neves, 2009: 160)

This is an issue that presents many variables to take into account, which has been approached over the years through multiple studies about the people’s needs. As Neves (2008: 132) well explains, translators working in the field of AVT must familiarize themselves with the audiences that SDH is designed for, in order to be able to provide the Deaf Community with a truly engaging experience.

“[...] special effort must be put into getting to know our audiences as well as possible and to adjusting our work to the genre and style of the audiovisual text we are subtitling (which in itself will be an audience selector), so that the subtitles provided truly offer d/Deaf or hard-of-hearing viewers a rewarding viewing experience”. (Neves, 2008: 132)

The natural outgrowth of this is for the d/Deaf to perceive situations and people in a quite different, as well as more meaningful, way than hearing people are able to, due to their ‘forced’ need to deeply observe the environment they live in, the faces and expressions of the people they are communicating with etc. Such an ability allows the d/Deaf to guess and understand distinct qualities and details proper of audiovisual productions, even without the use of the subtitles, that would be otherwise misunderstood by hearing people. The key of this first hypothesis lies in the contact points present between oral and sign languages.

“Signed languages use the full potential of non-manual behaviours (facial expression and body movements) to express what is orally given through intonation and in writing through punctuation. Sentence types such as statements, questions and commands are determined by non-manual signalling (e.g., head

nods, shoulder movements, eye and/or brow movements) and stress is often conveyed through making a sign more slowly or faster and sharper than normally done”. (Neves, 2005: 94)

The d/Deaf are generally already used to facial expressions and body language and are more than able to understand their meaning when they see it. For Denmark et al. (2019: 294), the d/Deaf make rely on their facial expressions while speaking in sign language in order to render their emotions clearer to their interlocutors. They also use facial expressions when they are talking about other people’s feelings, or when expressing the equivalent to the intonation in spoken languages. They go on by saying that “For hearing speakers, prosody is carried in the vocal channel through patterns of stress, rhythm and intonation, while for deaf sign language users, prosody is conveyed while signing through an extensive range of prosodic facial acts conducted in synchrony with movements and holds produced by the hands (Dachovsky and Sandler 2009)”.

During a movie or any other multimedia productions where spoken language is used, even though these features will still be present, they will be displayed faster than during a conversation between two d/Deaf people. However, their meaning remains the same and their understanding is consequently determined by the pace of the scene only. Another factor implied in the understanding of audiovisual productions is related to the subtitles and the ability to read them. The d/Deaf are generally known for their difficulty in reading, as explained by Moreno-Pérez, Rodríguez-Ortiz and Saldaña (2015: 374), and their consequent struggle in approaching subtitles. However, it should be kept in mind that reading comprehension skills are not innate, but they are learned and developed over time through constant exercise, which is true for both hearing and DHH individuals. As a matter of fact, Neves (2005: 97) states

“[...] to be able to interpret meaning (the main objective of reading) there needs to be experimental, cognitive and linguistic interaction: prior knowledge of the topic; the ability to relate the new information to that previously known; the ability to integrate and process information at word, phrase, sentence and paragraph level; and, finally, the ability to monitor one’s reading through self- questioning and inferencing. These skills are not innate, they need to be learnt and improved through practice, in a process that can be long and painful to hearers and deaf people alike”.

The creation of a more inclusive subtitling service could lead to greater entertainment for the Deaf Community, who can make use of improved SDH to enjoy an hour of relaxing TV programs while learning and practicing their spoken language. Stern (2001) in Tamayo (2017b: 02) explains that “Deaf children starting school at the age of four or five have, on average, 500 words as part of their vocabulary as opposed to the 3,000– 5,000 words known by hearing children and find it more difficult to acquire figurative language. New vocabulary is one of the greatest hurdles to reading comprehension”. Consequently, it is imperative for d/Deaf children to be continuously exposed to new vocabulary in order for their lexicon to widen, as the author (2017b: 03) affirms

“[...] exposure to a type of subtitling that enhances the acquisition of new vocabulary and syntax, while at the same time letting the audience enjoy the audiovisual content, might be an effective way of increasing input and promoting a more incidental and natural way of learning vocabulary, something that does not seem to occur among deaf children”.

In addition to this, Díaz-Cintas (2003a: 195) clarifies that

“Even for those with adequate command of the foreign language, every audiovisual product brings with it a range of additional obstacles to comprehension: dialectal and sociodialectal variation, lack of access to explanatory feedback, external and environmental sound level, overlapping speech, etc., making translation of the product crucial for the majority of users". (Díaz-Cintas, 2003a: 195)

Reading should not be an obstacle for anybody, but it should be a skill for everyone to acquire and use in their daily lives. Therefore, if the audience would have a page on TV called ‘Vocabulary’, with the words, the metaphors and the expressions used in each program and their explanations, many people could consult the page through the use of their own remote, read the definitions provided and they could finally enjoy reading, even on a screen. For Quigley and Paul (1984: 137), “In addition to the lack of substantial knowledge base, deaf children often are lacking in inferential skills and in figurative language and other linguistic skills, which develop automatically in young hearing children”. Deaf children, and adults, are not less clever than hearers. The only difference is that “the typical deaf child is likely to approach beginning reading with poorly developed general language comprehension skills resulting from experiential deficits, cognitive deficits and linguistic deficits” (*ibid*: 109). As any other human being, the d/Deaf need the right inputs to comprehend spoken language, since being proficient in reading is similar to the use of a muscle. If the muscle is regularly used, it becomes stronger and more efficient, which is the same that happens as with the ability to read.

It is important to keep in mind that there is a difference between exposing the d/Deaf to written language through subtitling services and providing access to it. As Hall (2020: 03) explains: “[...] for DHH populations, language exposure (i.e., the presence of input in the child’s environment) is not enough. What is necessary is access: that is, the child must be able to perceptually receive and cognitively process the signals that are being sent”. Since not everyone in the audience has the same reading skills, the implementation of ER language in SDH services—as one of the two SDH services that could be offered to the audience—could be of great help for those people in the audience, who would like to watch any audiovisual production with the aid of ER language. Indeed, for those individuals with stronger reading difficulties, as for example d/Deaf children or prelingual d/Deaf individuals, the use of ER SDH services could improve their access to audiovisual productions, as the language used in the subtitles would be simplified. As Maaß and Hernández Garrido (2020: 134) well explain

“Easy Language primarily addresses people with communication impairments: People with cognitive disabilities (see Keller in the present volume), prelingual

hearing impairments (cf. Deilen in the present volume), dementia, aphasia as well as other forms of disability (Bredel/Maaß 2016a). If texts are made available in Easy Language, there is usually a bigger range of users who profit from those offers, including non-natives (cf. Ahrens in the present volume), and especially in expert-laypeople communication (for example medical or legal communication).”

Since audiences consist in a wildly heterogeneous group of very different individuals—i.e., hearers, d/Deaf, Hard-of-Hearing, non-native speakers, people with one or more impairment(s), or the elderly—, at the beginning of this study it was thought that it would have been best for the experts in the field to potentially create one type of subtitles that could fulfil the needs of the Spanish viewers. The reason for this was due to the fact that subtitles have been described as useful to a wide audience of people, which is not limited to the Deaf Community. As Díaz-Cintas and Remael (2007: 14) state: “Subtitles are equally usable and useful to immigrants, foreigners and people of all ages learning a language or working on their reading skills”. This opinion is also supported by Neves (2007: 99), who declares

“[...] although the subtitles for d/Deaf were originally designed for individuals with hearing impairments, they are extremely useful to other audiences such as migrants or even listeners who are in noisy spaces or in situations where it is not convenient to activate sound (libraries, hospitals, etc.)”.⁹

For translators to create one type of subtitles that would fit, not only PWHI, but hearers too would have been a great idyllic goal to reach. However, those opinions quickly changed after reading just a few articles about this specific subject. Neves (2007: 104) sheds light on this matter: “The deaf receiver is a receiver with special needs that vary greatly depending on the degree and type of deafness (prelingual or postlingual), his age and cultural level”.¹⁰ Moreover, Neves (2009: 153) points out that intralingual subtitling for the Deaf and the Hard-of-Hearing do not offer two distinct versions, one for the d/Deaf and another for the Hard-of-Hearing in the audience, which is problematic due to the fact that not everyone in the Deaf Community has the same urges. She explains: “Guidelines for intralingual subtitling assume that their subtitling solutions cater for the needs of all alike and, in so doing, I would suggest that they are catering for the needs of neither”. A similar opinion is stated by Nord (2000: 195), who says

“If a text is to be functional for a certain person or group of persons, it has to be tailored to their needs and expectations. An ‘elastic’ text intended to fit all receivers and all sorts of purposes is bound to be equally unfit for any of them, and

⁹ Original version: “[...] a pesar de que los subtítulos para s/Sordos fueron concebidos en su origen para vencer la discapacidad auditiva, resultan extremadamente útiles a otros públicos como pueden ser los emigrantes o incluso oyentes que se encuentren en espacios ruidosos o en situaciones en las que no convenga activar el sonido (bibliotecas, hospitales, etc.)” (Neves, 2007:99). Translation provided by PhD candidate Roberta Cepak.

¹⁰ Original version: “El receptor sordo es un receptor con necesidades especiales que varían enormemente dependiendo del grado y tipo de sordera (prelocutiva o poslocutiva), de su edad y de su nivel cultural” (Neves, 2007:104). Translation provided by PhD candidate Roberta Cepak.

a specific purpose is best achieved by a text specifically designed for this occasion”.

It goes without saying that the best solution to this problem would be to create different types of subtitles directed to each audience, separately. On a theoretical level, it all seems quite clear, but on a more practical level, to generate various types of subtitles for the many types of public watching TV productions may represent too great an amount of work. That said, technology serves as a strong ally for translators and subtitlers, who may one day use new futuristic applications able to automatically create different solutions to offer to the audience. In that case, the creation of various types of subtitles would not represent any inconvenience and people would finally be able to select their favourite type of subtitles.

With regards to the production process of SDH, the general rule is to ‘adapt’ the real script to a simpler and shorter version as a way of providing the audience with enough time to read the subtitles on the screen. To diminish the information means to change and finally to manipulate it as well, which is not the final aim of the service subtitlers want to provide. SDH should be a visual representation of what has been said by the various characters on screen, and their lines shall be a faithful representation of the original script. As reported by Neves (2009: 160): “Reducing the amount of information is not, in my opinion, the solution to this need for extra processing time. Reduction is often achieved through the omission of information or by sacrificing interpersonal meaning. Redundancy is a feature of all languages and serves to make messages better understood”.

Tamayo is not the only scholar to promote subtitling services as a learning tool.

“Theories developed in the field of the second language acquisition of hearing children, which can be transferred to this context, provide evidence that subtitles may facilitate vocabulary acquisition (Neuman and Koskinen 1992) and improve the development of word recognition (d’Ydewalle and Van de Poel 1999; Koolstra, Van der Voort and Van der Kamp 1997; Koolstra and Beentjes 1999)”. (Zárate, 2021: 42)

The Deaf Community is only one share of the people in the audience in need of subtitling services, which is why it is imperative that the media keep becoming more and more accessible to everyone. As Romero-Fresco (2018a: 188) correctly reminds us, the people of the audience in need of appropriate subtitles are many and living in diverse situations. Therefore, Neves’s desire (2018: 04) to modify the labelling ‘Subtitling for the Deaf and the Hard-of-Hearing’ seems rather appropriate, as she declares it is necessary to do in order to: “do away with much of the confusion and inaccuracy of the terminology that is presently in use, while removing the stigma of disability and allowing for developments already in progress”. Neves (2018: 83) proposed the labelling ‘enriched subtitles’, since

“‘Enriched’ speaks for all the added elements that make subtitles relevant to specific users and ‘responsive’ for the standardized properties enabling subtitles to travel across platforms and media. The term also accounts for the growing

interaction between the person and technology, at both ends of the process: production and reception.”

Instead of ‘enriched subtitles’, perhaps it would be more appropriate to address the topic as ‘Inclusive Subtitling’, to encourage researchers, stakeholders, translators and the audience itself to focus on continuing to promote and to work towards a subtitling service that is constantly becoming more accessible to everyone in the audience, at least to a minimum extent. Although Neves (2018: 85) explains that “As Romero-Fresco (2015b: 10) puts it, ‘what viewers think of SDH, how they understand these subtitles and how they view them’ does not necessarily match.”, perhaps it is possible to provide the audience with subtitling services accessible enough for all the people in the audience to enjoy their multimedia productions according to both their wishes and needs. In order to help achieving this goal, Part I of this study was designed to test the comprehension abilities of the (selected) Spanish Audience, as well as the need for subtitles and sign language (SL) interpretation in the six clips presented to them. Part II, i.e., the comparative analysis of the subtitling services provided on *GOT* (HBO), *Grey’s Anatomy* (Amazon Prime Video) and *La casa de papel* (Netflix), highlighted the similarities and the differences among the three subtitling services, as well as the accessibility features each streaming platform provides in these TV series. Finally, the survey in Part III was designed to retrieve valuable information regarding the (selected) Spanish Audience’ opinions on the subtitling services currently offered by the Spanish Digital Television, as well as to know their wishes to customize certain subtitling features (font size, colour and background colour, speed) and to add new pages on Teletext in the future, if possible.

2.2 Audiovisual Translation

Over the years, many have been the definitions given to the field of AVT, however Gambier (2012: 45) explains it in very simple terms: “In the last 20 years audiovisual translation (AVT) has come into its own as a recognized form of translation and also as an academic field of research. It is mainly concerned with the transfer of multimodal and multimedia speech (dialogue, monologue, comments, etc.) into another language/culture.”

Audiovisual Translation concerns the translation of multimedia productions and, as Gambier (2012: 49) explains, it can be of two different types: it can be a translation between different modes—i.e., from written to oral; from picture to written mode, etc.—usually within the same language, called ‘intralingual translation’; or it can be between different languages, which is called ‘interlingual translation’.

For Gambier (2012: 49),

“Intralingual subtitling [...], is a shift from the spoken mode of the verbal exchange in a film or TV programme to the written mode of the subtitles. There are two main different purposes in using intralingual subtitles:

-For language learning (young people, migrants) [...];

-For accessibility, defined as the right for certain groups to have access to AV texts, in this case the deaf and hard-of-hearing.

Intralingual subtitling is often a teletext option on TV. It is also called, particularly in the USA, ‘closed captions’, as opposed to ‘open captions’ (i.e., subtitles that cannot be turned off). However, closed captions are not quite synonymous with intralingual subtitles, since such captions also can be used on DVDs and TV channels for interlingual subtitles.”

As mentioned above (page 12), Romero-Fresco (2018a: 188) declares that subtitles represent a great help for a much wider audience, as they can benefit PWHI, people with learning and/or cognitive impairments, people with more than one impairment, foreigners and people who cannot access the content properly due to situational or environmental restrictions. ‘Intralingual subtitling’ is not the same as closed captions, as the former consist of the transcription on screen of the characters’ speech through verbatim subtitles, while the latter “[...] usually renders verbal and non-verbal audio material into text. It is, like interlingual subtitling, subject to norms of exposure times, reading speed constraints and subtitle density. However, in contrast to interlingual subtitling and closer to dubbing, it respects a certain degree of synchronization, following to a certain extent the lexis and syntax of the original speech—because many hard-of-hearing people use lip-reading as an additional source of information” (Gambier 2012: 49).

‘Subtitles’, ‘closed captions’ and ‘subtitling for the Deaf and Hard-of-Hearing’ are not synonyms, but they refer to three different types of subtitling services. Subtitles are usually designed for individuals who are watching an audiovisual production in a foreign language. They do not report the characters’ speech as it is, but they can provide both an intralingual, as well as, an interlingual translation of the multimedia content. Since they are not meant to be used by the Deaf and Hard-of-Hearing, they do not report information regarding background sounds or music, but rather intralingual translation of signs or newspapers’ titles. Closed captions are a subtitling service designed to provide media accessibility to the DHH by reporting the characters’ speech as it is and all relevant background sounds and music. Finally, SDH is a combination of the two abovementioned subtitling services, as they provide information regarding all relevant background sounds and music, but they also report the intralingual translation of the characters’ speech and intralingual translation of all relevant signs, newspapers’ headlines etc. (CCCAccess 2021. Accessed on 26/07/2021).

Audiovisual translation, or AVT, does not consist in mere translations of audiovisuals from one language to another, but rather in a field of study that encloses a number of translation modalities researched in multiple subareas of interest. For Szarkowska et al. (2018: 09)

“Apart from interlingual subtitling, dubbing, and voice-over (Díaz Cintas & Orero, 2006; Franco, Matamala, & Orero, 2013; Orero, 2009), [...] AVT has eagerly embraced other modalities, including audio description for the blind (AD), subtitling for the deaf and the hard of hearing (SDH), sign language interpreting, live subtitling, audio subtitling, opera surtitling, to name just a few (Gambier, 2003, 2004). AD and SDH fall under the umbrella term media accessibility, which has been thriving in AVT research in recent years (Díaz Cintas, Matamala, &

Neves, 2010; Díaz Cintas, Orero, & Remael, 2007; Remael, Orero, & Carroll 2012).”

As stated above, AVT consists of a wide spectrum of research areas, which encompass other fields of research, such as the one of MA. The reason behind this lies in the fact that by translating a multimedia production into other languages, or even into other modes of translation—as for example in the case of audio description for the blind—, that audiovisual product becomes immediately more accessible to the audience compared to his original version. As Díaz-Cintas, Orero, & Remael (2007: 13–14) explain: “[Accessibility] is a form of translation and translation is a form of accessibility, uniting all population groups and ensuring that cultural events, in the broadest sense of the word, can be enjoyed by all”. This opinion is also shared by Szarkowska et al. (2018: 10), who state

“Some scholars even call for a departure from the term audiovisual translation towards media accessibility, arguing that translating a film makes it accessible to viewers who otherwise could not have access to the dialogue. In this sense, media accessibility can be considered a higher-level umbrella term encompassing audiovisual translation (Greco, 2018; Jankowska, forthcoming; Romero-Fresco, 2018)”.

The opinion for which Audiovisual Translation Studies (AVTS) and Accessibility Studies (AS) have always been strongly connected is not a new one, as Gambier (2003: 179) already pointed out when he made a list of those features that can be found in all types of audiovisual productions, and that are of extreme relevance in AS, and MA as well:

“Acceptability, related to language norm, stylistic choice, rhetorical patterns, terminology, etc.;

Legibility, defined – for subtitling- in terms of fonts, position of subtitles, subtitle rates, etc.; *Readability*, also defines for subtitling in terms of reading speed rates, reading habits, text complexity, information density, semantic load, shot changes and speech rates, etc.;

Synchronicity, defined – for dubbing, voice over and commentary- as appropriateness of the speech to lip movements, of the utterance in relation to the non-verbal elements, of what is said to what is shown (images), etc.; *Relevance*, in terms of what information is to be conveyed, deleted or clarified in order not to increase the cognitive effort involved in listening or reading; *Domestication strategies*, defined in cultural terms. To what extent might we accept the new narrative modes, expressed values and behaviours depicted in the audiovisual product?” (Gambier, 2003: 179).

As Neves (2005: 121) correctly reminds us, “It needs to be added, however, that in SDH all these factors need to be addressed in view of one important element that is central to this particular type of subtitling: the addressee’s profile”. In SDH, the audience is

represented by the Deaf and Hard-of-Hearing, which consists of many different people with different levels of deafness and different needs with regards to the subtitling services they are using.

Even though some scholars in the past did not agree on Audiovisual Translation for the Deaf and Hard-of-Hearing being part of the Audiovisual Translation field at all, by time it became clear that Subtitling for the Deaf and Hard-of-Hearing was a great part of it, since it deals with translation, media and culture too. As Remael et al. (2018: 66-67) explain

“Subtitling for the Deaf and Hard-of-Hearing has existed since the advent of Teletext or Ceefax (i.e., the 1970s) and research into this translation mode has progressed both quantitatively and qualitatively at different paces in the various countries of Europe and on other continents in the past decade [...]. However, today’s variety of approaches is still linked to differences in long-standing traditions (such as dubbing vs. subtitling). It is also connected to varying national legislation and funding, and often depends on whether the translation is destined for DVD, television, the internet, hand-held devices or other media. The list of reasons for the variations is almost endless”.

However, in the past there were scholars who did not consider SDH as a part of AVT. For example, Fawcett (1996: 67) declares: “The professionals of film translation claim that subtitling and dubbing are not translating and therefore, by implication, cannot be dealt with by translation theory”. Certainly, on this day such comments are considered obsolete, as the general worldview about this subject has finally changed. For Toledo (2018: 145)

“Translation, then, involves the creation and transformation of a text (language) and its meaning (culture), not simply a transposition from one language to another. Nowadays, the concept of translation is being revisited from times when it only involved the change from a source to a target language to become a more inclusive and flexible idea, adjusting to new technologies and new research. Inside the field of Translation Studies, and therefore considered nowadays a subfield, there is the Audiovisual Translation (AVT – or Tradução Audiovisual, TAV, in Portuguese)”.

AVT started to be seen as a field on its own already a long ago and many of the now most respected and well-known researchers of this matter have been investigating and developing this field of study, as for Neves, Chaume, Zabalbeascoa, Ranzato, Matamala, Corrius, Romero-Fresco, Perego, Gottlieb, Szarkowska, Arias, Díaz-Cintas, Gambier, Espasa, Remael, Serban, Delabastita, Tamayo, Orero among others. Thanks to their interest in this very important subject, much has already been discovered and SDH has slowly become part of Academia. For Díaz-Cintas (2009: 07)

“[T]he study of A[udio] V[isual] T[ranslation] has by now developed its very own theoretical and methodological approaches, allowing it to claim the status of a scholarly area of research in its own right. The new-found autonomy of AVT is evident in the fact that specific research frameworks have been developed for the study of dubbing and subtitling... In addition, AVT has become the main topic of

books, postgraduate courses and international conferences focusing on the specificity of this field”.

This opinion is also supported by Romero-Fresco (2015b: 09), who affirms that nowadays AVTS is recognized as a discipline in its own right and, thanks to the many publications, conferences and studies that have been carried out in this area of interest, over the years AVTS has become a very important field of research that is connected to many other disciplines as well.

“Although not as visible as it could be outside the realm of Translation Studies, Audiovisual Translation Studies (AVTS) is now generally considered as a discipline in its own right. A myriad of research projects, conferences and publications bears witness to the vibrancy of research in AVT, which becomes stronger as it continues to develop and strengthen links with an increasingly broader range of related disciplines”. (Romero-Fresco, 2015b: 09)

As a matter of fact, AVTS is considered an interdisciplinary subject, thus it covers many different topics, such as dubbing, subtitling, voice-over, but also SDH, audiodescription for people with visual impairments, respoken, sign language interpreting, live subtitling etc. All these areas of interest—i.e., dubbing, subtitling, voice-over etc.—concern another subdivision of AVTS, which is Accessibility Studies (AS). AS has become more and more relevant in the academic world, thanks to its aim to render both the media and the Web accessible to everyone regardless of their impairments or of the lack of them. This opinion is shared by Rizzo (2019: 93), who states

“Although media accessibility (MA) practices are still fragmented in numerous European countries (Reviere, 2016), there is a massive increase in attention to the rising awareness regarding accessibility as a result of collaborative exchanges between academia and the industry. Today, AD and SDH are considered as the most popular and common accessibility modes for the inclusion of sensory impaired persons”.

Whereas Greco (2016: 11) states that media accessibility could be described as “a set of theories, practices, services, technologies and instruments providing access to audiovisual media content for people that cannot, or cannot properly, access that content in its original form”.

2.3 Media Accessibility (MA) and Accessible Filmmaking (AFM)

As technology keeps developing and changing, the market of the media and their audience changes, too. Media accessibility is also undertaking some changes that clearly affect society in the way people access the world. Romero-Fresco (2018) points out that it is crucial for researchers to take into account MA when working on AVT. “[...] it could be argued that AVT is in the process of constructing its own building within the larger TS estate, with a room devoted to media accessibility (MA). But just as TS can hardly cope with the unrelenting movement of AVT, it is worth considering whether the constant evolution of MA sits easily within the current margins of AVT”. From this statement it is clear that MA is starting to be acknowledged as a field of research on its own. As Romero-Fresco (2018a: 190) well affirms, there is more than one difference between AVT and MA (Media Accessibility).

“[MA] focuses on providing access for persons with disabilities to content made by persons without disabilities. This access to content is of course useful but, if not accompanied by other types of access, can be seen to promote a paternalistic and self-serving approach that perpetuates the agency of the able and the passive role of the disabled. A fuller and fairer view of MA must therefore include access to creation (Dangerfield, 2017), so that groups who have not traditionally been given the opportunity to create, can make audiovisual media products that will need to be accessed by all, including the able”.

What is more: media accessibility has experienced three shifts: i) from particularist accounts to a universalist account of accessibility; ii) from maker-centred to user-centred approaches (evident in the recent increase of reception studies within MA); iii) from reactive to proactive models (Greco and Jankowska, 2019).

As stated by Greco and Jankowska (2019), access for all, to all material and immaterial goods, has become a necessary requirement to guarantee human rights and a dignified life. This implies a more universalistic notion of media accessibility, “more inclusive and empathetic as it makes everyone—whether or not they have disabilities—share the same need for accessing original content” (Romero-Fresco, 2018: 190). This opinion is shared by Rizzo (2019: 94), who states

“As a human rights concept, accessibility is open to any “social” user and to a variety of minorities – where the idea of minorities has implications within the spheres of sensory impairment, physical disability, social class, age, race, and language. In this regard, accessibility can be built, on the one hand, as a social potential that favours and stimulates knowledge dissemination, while assembling all citizens of the world (e.g., museums as spaces of social and multicultural encounters), and, on the other hand, as a universal concept in relation to its analogies with translation and interpreting processes as mechanisms of universal communication”.

Therefore, MA represents an essential element for a much wider audience.

“The EU Audiovisual Media Services Directive (2016) identifies the provision of MA as a necessary requirement not only for persons with sensory impairments but also for older people to participate and be integrated in the social and cultural life of the EU”. (Romero-Fresco, 2018: 188).

According to Di Giovanni (2018: 158) the central notion of the universality of inclusive entertainment is supported by participatory accessibility, in which “the special needs remain central and are indeed taken into consideration, but they are blended into the needs of other types and groups”. For her, participation implies a proactive attitude and evokes action, agency, shared learning and experience. Hence, the collection of the audience’s feedback is one of the elements that help achieve this participatory accessibility, but this active involvement is still in its early stages.

So far, SDH has become one of the main forms to access audiovisual productions and its parameters have been established through practice and empirical research carried out over recent decades by scholars such as De Linde and Kay (1999), Neves (2005, 2007, 2008, 2018), Remael (2007), Zárata (2014) and Romero-Fresco (2015b, 2018). Much progress has been made and there is further scope for improvement.

SDH is now to be considered as a field of study where the attention has to be paid not to AVTS only, but to MA too. As mentioned above, SDH is also not to be described as the exclusive target of MA, but simply as one of the many targets this field of interest is addressing, which makes the DHH a little bit more included in our society too. The ultimate aim of Romero-Fresco (2018: 187) is to “instigate social change” and in order to do so: “[...] a distinction is made between access to content and access to creation (Dangerfield, 2017); examples are drawn from two emerging disciplines: interlingual respelling and accessible filmmaking (AFM)” (Romero-Fresco 2018: 187). Certainly, accessing the content of a media product is not the same as accessing the creation of that same media product, which could actually make the difference during the creation of SDH.

“As far as access to content is concerned, interlingual respelling can contribute to making MA more visible, forcing hearing audiences to share the same need for access as audiences with hearing loss. As for AFM, by proposing the integration of translation and accessibility as part of the filmmaking process, it provides a platform for deaf, blind and foreign audiences, as well as other groups, to join forces and increase their visibility within the film industry. However, a wide notion of MA must also include access to creation, that is, access to equipment, funding and job opportunities that can enable persons with sensory disabilities to create audiovisual products which, it is argued, can provide a more inclusive and empathetic audiovisual experience than the current model of MA” (Romero-Fresco, 2018: 187).

Romero-Fresco highlights the importance of differentiating ‘access to content’ and ‘access to creation’. SDH has been mainly focusing on the first concept, which allows PWHL,

immigrants, HoH and people with disabilities to access information delivered by the media through subtitles. However, ‘access to content’ is not the same as ‘access to creation’; the former concept carries a connotation of passivity and the acceptance of this status, while the latter one has a proactive connotation since it implies an involvement in the production of subtitles.

‘Access to creation’ is a very interesting concept, that could greatly help researchers, translators and stakeholders to understand and include the point of view of the Deaf Community on many relevant issues still to be resolved, such as if possible ‘SDH Universals’ (Romero-Fresco 2015b: 14 and 350). The project described by Romero-Fresco concerning collaboration between people with hearing and visual impairments and the producers of a documentary represents a proposal with an incredible potential.

“In the Accessible Filmmaking Project, funded by the British Film Institute (BFI) and the UK-based deafblind charity Sense (Dangerfield, 2016), filmmaker and researcher Kate Dangerfield set out to make a documentary about deafblindness based on a series of filmmaking workshops that she delivered at Sense in 2016 and 2017. The plan was to involve the deafblind participants in the provision of accessibility for the film (access to content), but it soon became clear to her that the participants needed to tell their own stories, thus becoming co-directors of the film. [...] The resulting documentary, mostly filmed in first person point of view, is an inclusive and innovative piece of filmmaking that brings people without disabilities closer to the experience of persons with disabilities, and that replaces the ocular centric focus of contemporary filmmaking (Elsaesser & Hagener, 2010) with a more haptic approach”. (Romero-Fresco, 2018a: 194-195)

Romero-Fresco sees this as a new inspiring and useful step forward to the artistic world to come: “Widening the scope of MA also means going beyond providing access to content that is typically made by people without disabilities and expanding this to access to creation” (Romero-Fresco 2018a: 200). Thus, he considers it would be of great help to involve people with impairments in the creation and direction of the filmmaking process. As previously mentioned by Tamayo (2017b) as well, subtitlers are usually hearers and even though they are constantly trying to offer the best service possible when creating *Inclusive Subtitles*, they will never be able to truly meet the needs and expectations of this heterogeneous audience. Moreover, the professionals working in the field have usually received an education in translation and/or audiovisual translation, which does not always include film production, screenwriting and many more subjects that should be actually part of the formation of an audiovisual translator. That is generally due to the university programs they received; however, a subtitler working on Subtitling for Deaf and HoH audiences as well, should receive a special training, which should include: languages, translation, audiovisual translation, film production, screenwriting, sign language(s) and Deaf Culture. If the professionals of Audiovisual Translation for the Deaf and the HoH would receive such an education, which would also include meetings with Deaf associations, their education would be by far much more complete and their future work easier to do.

As for Accessible Filmmaking (AFM) Romero-Fresco (2018a: 187) states that “[...] by proposing the integration of translation and accessibility as part of the filmmaking process,

it provides a platform for deaf, blind and foreign audiences, as well as other groups, to join forces and increase their visibility within the film industry”. For example, the first fully accessible Spanish short movie *Xmile*, by Font (2016):

“Indeed, the films that are adopting the AFM model are becoming flagships for a new inclusive and collaborative approach to accessibility, which helps their promotion and distribution. This is the case for *Xmile* (Font, 2016), the first fully accessible Spanish short film made according to the principles of AFM, which was presented and discussed at the Spanish Senate as part of an ongoing campaign to include AFM in the Spanish legislation on MA. *Xmile*’s implementation of the AFM model involved the participation of consultants with sensory disabilities”. (Romero-Fresco, 2018a: 194)

Access to creation will surely give more visibility to the DHH and it would provide improved social integration for this community. Tamayo (2016: 332) points out that audiovisual translators, as a rule, have no hearing impairments, therefore they can never be part of the audience to which the subtitles for the Deaf and HoH are originally meant for, although the SDH is a service that many other people in the audience can benefit from. The author stresses the lack of information translators may show as for the communication between d/Deaf people or with reference to the way d/Deaf people read, write and understand the world. For her, this information could greatly improve the work of many translators of this area of interest. Already in 1991 Gutt (1991: 386) expressed a similar opinion to Tamayo’s, saying that

“[...] whatever decision the translator reaches is based on his intuition or beliefs about what is relevant to his audience. The translator does not have direct access to the cognitive environment of his audience, he does not actually know what it is like – all he can have is some assumptions or beliefs about it. And, of course, [...], these assumptions may be wrong. Thus, our account of translation does not predict that the principle of relevance makes all translation efforts successful any more than it predicts that ostensive communication in general is successful. In fact, it predicts that failure of communication is likely to arise where the translator’s assumptions about the cognitive environment of the receptor language audience are inaccurate”.

This leads to the conclusion that translators working in this field might benefit from becoming familiar with new discoveries based on the research already done in the fields of AVTS, AS and MA, and getting the feedback from the people who will use it or have used the product of their work. Neves (2009: 157) declares that translators producing subtitles for the Deaf and the HoH are commonly not aware of the cognitive environment of their audience and this may be due to the poor training received in the field or even to their lack of acknowledgment of the difference in language and culture that divides them from their audience. As Morettini (2012: 325) affirms: “When translators and subtitlers are asked to produce subtitles for a hearing-impaired audience, they do not share the same cultural environment, set of knowledge and world-view of their intended recipients [...]”. There is another aspect which might really improve the final result of an accessible

production and thus it is worth taking into account: the integration of audiovisual translation and accessibility in the process of filmmaking.

This idea was originally suggested by Romero-Fresco (2013: 17-18), who affirmed

“In research terms, accessible filmmaking could be useful for filmmakers and film scholars to explore the aspects of AVT and accessibility that have an impact on the reception of their (translated) films and for AVT scholars and translators to identify the elements from filmmaking and film studies that can contribute to the theory and practice of translation. [...] The aim of accessible filmmaking is to integrate AVT and accessibility as part of the filmmaking process through collaboration between translators and the creative team of the film”.

For Romero-Fresco (2018), the opportunity for filmmakers and PWHI to work together will give this minority more visibility, which would represent only one of the many more benefits we are not yet able to see. As previously mentioned (page 26), another key element that would greatly improve the visibility of d/Deaf people is the representation of this minority group on the many online platforms available nowadays. The number of platforms and media on which people are nowadays able to watch whichever type of multimedia production is almost infinite. In Ranzato and Zanotti’s interview with Frederic Chaume, he (2018: 11) declares:

“We are witnessing a constantly growing repertoire of contemporary film and video delivery systems, like streaming services such as Netflix, HBO, Amazon, etc. which are having a dramatic impact on younger audiences, on top of the traditional ways of consuming film and TV shows, such as cinema, TV, DVD and Blu-Ray. The ease with which audiovisual content can be viewed across national, cultural, and linguistic borders has grown exponentially”.

Nonetheless, there are not many online streaming platforms with SDH services. SDH is essential for PWHI when watching a series, a movie or a video clip on YouTube, consequently if there is no subtitling option on TV or on YouTube, part of the audience, the d/Deaf for example, might need to switch channels and be deprived of a program they might love, which means that they are deprived their right to access a multimedia product. As explained by Greco (2018: 208), to have

“[...] access does not merely mean for an individual to have a good at her disposal or to have the possibility to reach it. Having access also means being able to use, interact with, and enjoy that good. Thanks to the cultural revolution produced by human rights, it has become clear that access is a necessary requirement for the respect of the human dignity of all. From this point of view, accessibility then becomes a proactive principle for human rights, which calls for an equally proactive attitude from the duty-bearers to comply with that necessary requirement (Greco, 2016b)”.

Owning something does not mean having access to it, just as usability does not necessarily mean accessibility. This is why, Romero-Fresco has focused on the distinction between “access to content” and “access to creation”, to which Greco adds:

“For years, the dominant attitude was based on a radical version of the so-called maker’s knowledge tradition (Greco, Paronitti, Turilli, & Floridi, 2005; Pérez-Ramos, 1988), according to which maker’s knowledge was the only one that mattered (Kraus, 2017). [...] Accessibility has, however, challenged the maker-centred and maker-driven approach. In order for artefacts to be fully accessible, the knowledge of users and other stakeholders needs to be fully taken into account in the design system because it is as important as the maker’s knowledge. A major consequence of the new outlook towards users is the privileged status that reception studies have reached in the fields affected by accessibility”. (Greco, 2018: 212)

Researchers from all over the world have already recognised the urgency of shifting the focus from the maker’s point of view only to the user’s perspective, as Greco (2018: 213) explains “The very acknowledgment of the need to consider accessibility within the design process, and that users’ knowledge is as important as the maker’s, poses questions as to the place of accessibility concerns and of user’s knowledge within the process of artefact creation as well as how this knowledge should be acquired and used within that process”.

Another important aspect that should be taken into consideration is the *access to enjoyment* that should be provided to the viewers. One of the key aspects of AVT are the people in the audience and their preferences in terms of platforms (whether online streaming platforms or digital television) and of multimedia products (TV series, movies, news, documentaries, short movies, etc.). The inclinations of the audience may depend on a number of factors, such as time-constraint, the cost of the platforms, the availability of audiovisuals on their favourite platform, the accessibility of the platform of their choice, the accessibility of the audiovisuals they decide to watch, but also the access to enjoyment provided by the platforms. For Greco (2018: 208), “[...] access does not merely mean for an individual to have a good at her disposal or to have the possibility to reach it. Having access also means being able to use, interact with, and enjoy that good”. When providing accessibility to the audience, there is more than one type of accessibility to be taken into consideration, as for example the *access to enjoyment*, which represents an essential element to keep in mind in the evaluation of the quality of any audiovisual production. In order to provide a definition for *access to enjoyment*, it is important to understand what does ‘enjoyment’ mean.

“Although most scholars seem to agree that enjoyment is a pleasurable response to media use (cf. Raney, 2003; Vorderer, Klimmt, & Ritterfeld, 2004; Zillmann & Bryant, 1994), researchers have defined it alternately as an emotion (Vorderer et al., 2004), an attitude (Nabi & Krcmar, 2004), a combination of cognition and affect (Raney & Bryant, 2002), or some other unspecified positive reaction to media content (Miron, 2003; Tamborini, 2003)”. (Tamborini et al., 2010: 758)

From these studies it is possible to notice that many can be the definitions for ‘enjoyment’, however they all seem to lead to a sense of pleasure in reaction to a media use.

“[...] Vorderer et al. provide a synthesis of existing media enjoyment research, identifying antecedents and outcomes of enjoyment [...]. For example, in order to enjoy entertainment media, one must suspend his or her disbelief rather than question the plausibility, consistency, or realism of the characters, actions, and storyline [...]. Enjoyment is also enhanced to the extent that people care about the characters in the narrative. Especially for interactive content, media enjoyment can increase due to a sense of control over aspects of the content, including character appearance, character actions, appearance of the narrative environment, and so on [...]”. (Rogers et al., 2015: 30)

Enjoyment is therefore a sense of pleasure felt in connection with media content that is provoked by the feeling of being fully immersed in the audiovisual on screen, while relating with—or having compassion for—the characters of the story, with special regards for interactive content. However, even though the audience may have physical access to an audiovisual production, they may not have *access to the enjoyment* of that product, which could be due to a number of factors, i.e. the viewers might not relate to any of the characters on screen, they might not believe the story told in the program that they are watching, or they might need to have more control over the content of their choice.

With regards to interactive audiovisual productions, the famous OTT platform Netflix provides its users with an increasing list of interactive movies, such as *Blackmirror: Bandersnatch* or *Minecrat: Story Mode*, during which the viewers are given the opportunity to “make choices for the characters” (Netflix Help Center: Interactive TV shows and movies on Netflix. Accessed on 19/07/2021) and to decide the evolution of their story as they are watching that multimedia content. These movies represent a very good example of audiovisuals implementing the *access to enjoyment* of the audience, who has the possibility of being in control of the program that they are watching. Since interactive content is becoming progressively more popular among the audiences around the world, it would be interesting if cinemas would also offer it on the big screen, while the people in the audience could vote through the use of remote controls the outcome of the multimedia content on display. This possibility could greatly improve the *access to enjoyment* in interactive content, however further research is needed in order to verify this concept.

With reference to the audience’s involvement in the audiovisual production, it is worth mentioning that among scholars there is an increasing need to involve the end users in the making process and that is due to their will to render products truly accessible to everyone in the same way, without restrictions. Lately, there have been studies attempting to bridge the gap between producers and audience.

“[...] over the past few years, the area of AD has proven to be very fertile ground for the intersection and the flourishing of the three shifts, producing some of the most innovative projects in MA, e.g., from participatory AD in opera events (Di Giovanni, 2018) to enriched descriptive guides in museums (Neves, 2016) to integrated AD in theatre performances (Fryer, 2018). They all share the same traits: a universalistic account of accessibility, the implementation of a proactive approach, and the involvement of the different stakeholders during the various stages of the life-cycle of production. Their ability to embrace all the salient features of accessibility and to put them into practice with a conscious, socially engaged attitude can point the way towards a more structural and analytical approach of AS to many other areas”. (Greco, 2018: 214)

What can be inferred from this statement is that some steps in the AD field towards accessibility and AS have been made. However, much still needs to be researched and discovered in the field of SDH, on a practical and on a theoretical level both, which is why I hope this doctoral thesis will represent an additional step in the field of AS, particularly in the further development of *Inclusive Subtitling*. As a matter of fact, I believe that this PhD project will retrieve information regarding the needs of (a part of) the Spanish Audience with reference to the subtitling services currently offered by the Spanish Digital Television, as well as the requests of the Spanish Audience with regards to possible improvements in the accessibility of the subtitling services on television. Finally, with this doctoral thesis I aspire to write a list of criteria for the subtitlers to use when creating Inclusive Subtitling that could be added to the existing Spanish Standard UNE 153010:2012 in the future.

3. METHODOLOGY

The methodology chosen for this research is both qualitative and quantitative and it involves the use of *Action Research*: it consists of two surveys, and a comparative analysis of the subtitling service offered on three TV well-known TV series, i.e., *Game of Thrones (GOT)* (HBO), *Grey's Anatomy* (Amazon Prime Video) and *La casa de papel* (Netflix), available on three Over-The-Top (OTT) media platforms. The three-phase-research was conceived in a way that allowed the integration of the data obtained in each part of the study into the following one (see the section 'Research Goals', page 19), which made the three studies a three-phase-research with the final aim of writing a list of criteria for translators to use when creating *Inclusive Subtitles* in Spain, a list that could be integrated in the UNE 153010:2012 in the future.

Part I is based on a survey-based reception study distributed in Spain between December 2019 and February 2020. The survey was given to 104 people, a group that consisted of d/Deaf, HoH and hearers too. In order to obtain heterogeneous results from the Spanish Audience, participants are from different backgrounds, age and education. The survey is divided into three parts, each of them presenting two videos with questions about the content and the comprehension of such multimedia productions. As the study is divided as explained, the participants face three stages of increasing difficulty—indeed, all videos are mute and offer no extra help through the use of subtitles. By muting the videos, all participants had to watch them without the aid of sounds or subtitles, which means that nobody among the respondents was in advantage when watching the videos presented to them. The three sections display two videos each, of different types of multimedia productions—i.e., advertising, short movies and cinema production. In order to render the survey more appealing to the participants, only short videos were chosen for this survey. Indeed, the videos are 1 to 2 minutes 31 seconds each, followed by multiple-choice questions to check the participants' comprehension of the videos and their suggestions for information they would like to receive in subtitles, which greatly increased the understanding of the audience's needs (see the section 'Hypotheses', page 16). Finally, there is a section about which of the subtitles provided the participants favoured most, and further participants' feedback to express doubts or requirements they feel subtitles should be sensitive to.

As explained above, Part I consists of a survey divided into three sections. Section 1 entails ten questions regarding the volunteers' personal data, like age and gender. This section was strongly inspired by *The Reception of Subtitles for the Deaf and Hard of Hearing in Europe* (2015) and the questions here asked are the following:

1. 'Age';
2. 'Gender', which offered the options 'female', 'male' and 'I'd rather not say'. In the future, it would be advisable to provide also the option 'non-binary';
3. 'Mother tongue (More than one option is possible)';
4. 'Most used language(s) or other means of communication (More than one option is possible)';

5. 'Education';
6. 'Occupation';
7. 'Type of deafness (or lack of it)', with three possible types of deafness, plus the option 'hearing';
8. 'Age when deafness occurred', with seven possible timelines, as well as the option 'I'm a hearing';
9. 'Hearing aid or cochlear implant? (in case one of them is being used)', which offered the options 'hearing aid', 'cochlear implant' and 'none of them'. In the survey created for Part III, this question was presented once again to the volunteers, with the addition of 'another hearing aid' as one of the possible answers. That is due to the fact that, some volunteers of Part I expressed their wish to specify their use of another type of hearing aid in the survey, but they could not do so, as 'another type of hearing aid' was not a possible answer to the question. Thus, it was decided to provide the volunteers of Part III with the possibility to declare their use of another type of hearing aid, if needed.
10. 'Daily amount of time spent in front of the TV'.

As mentioned above (page 51), section 1 was inspired by the questions asked in the section 'Personal Details' of the questionnaires distributed in the studies conducted in *The Reception of Subtitles for the Deaf and Hard of Hearing in Europe* (2015). The questions asked in the book were the following:

1. 'Gender', which offered the options 'male' and 'female';
2. 'Age', which presented four possible age groups;
3. 'Education' and 'type of school';
4. 'Occupation';
5. 'Type of deafness' (in case the participant would be d/Deaf or Hard-of-Hearing), which offered the options 'Deaf', 'Hard-of-Hearing' and 'Hearing';
6. 'Age when deafness occurred', with seven possible timelines;
7. 'Use of hearing aid/cochlear implant', which presented the answers 'yes' and 'no';
8. 'Communication methods', which allowed to choose among 'BSL (British Sign Language)', 'Sign Supported English' or 'Lipspeaking';
9. 'Difficulties in reading English', which offered the options 'yes' and 'no';
10. 'Difficulties watching the TV screen or reading subtitles', with possible answers 'yes', 'no' and 'sometimes'.

Section 2 involves six video clips with follow-up questions testing the volunteers' understanding of each one of them. The questions here presented are the following:

1. 'Video 1' and the duration of the clip written in parenthesis;
2. 'Difficulty of clip number 1 (from one to five, where one stands for 'very easy' and five for 'very difficult')'. By using a Likert scale, volunteers were provided with

five possible rating options, to allow the respondents the chance to express their opinion with a little bit of margin. Indeed, to present the volunteers with three possible rating options seemed quite limiting, due to the fact that the options ‘very easy’ and ‘very difficult’ would have resulted quite near to each other. On the other hand, to provide the respondents with a higher number of rating options could have been confusing and it could have led to a longer time in the filling of the survey, or to the abandonment of the survey itself;

3. ‘What if the main meaning of clip number 1?’ Here, three options were presented to the volunteers: a right one, a wrong one and a confusing one. The reason why only three options were presented to the respondents lies in the fact that there can only be one right answer and if the volunteers would have had more than three possibilities to choose from, it would have rendered the survey much more complex and much longer to answer to. Moreover, three options seemed enough to test the volunteers’ comprehension of the clips;
4. ‘Does clip number 1 need subtitles?’ The volunteers were given three options: ‘Yes, it does.’; ‘No, it does not.’ and to express doubt ‘I don’t know for sure, but I would have understood more with subtitles.’.
5. ‘Does clip number 1 need sign language interpretation?’ Three options were presented to the volunteers: ‘Yes, it does.’; ‘No, it does not.’ and to express doubt ‘I don’t know for sure, but I would have understood more with sign language interpretation.’.
6. ‘Which of the following additional information would you have appreciated while watching clip number 1?’.

After question number six, all the following video clips (Video 2, Video 3, Video 4, Video 5 and Video 6) were presented to the volunteers with the corresponding follow-up questions, just like displayed above. The questions were the same for every video clip.

Finally, section 3 consists of eight questions about the special needs that volunteers might have when watching the Spanish Digital Television with regards to the subtitling services currently offered to the Spanish Audience. The questions here asked are the following:

1. ‘Is it easy to read the subtitles offered by the Spanish Digital Television?’ Three possible answers were presented to the respondents: ‘Yes, it is.’; ‘No, it is not.’ And ‘Sometimes it is.’. Like in questions 4 and 5 of section 2, here too the option ‘I’m not sure’ is not provided to the audience, however it would be advisable to add such an option if this survey was to be used again in the future.
2. ‘How would you evaluate the quality of the subtitles offered by Spanish Digital Television, where 1= Very deficient and 5= Excellent?’ Like in section 2, whenever the difficulty of a clip was inquired, also in this question volunteers were provided with five possible rating options. Indeed, as in the previous section, it was thought that five options represented a good number of possible choices, while a lower number of options could have resulted limiting and a higher number of choices could have made this question quite confusing for the respondents.

3. ‘Do you choose TV programs based on whether they have subtitles or not?’;
4. ‘Which TV shows do you watch most often? (More than one option is possible).’;
5. ‘Which TV channels do you watch most often? (More than one option is possible).’.
The selection of the channels was made randomly, while providing both very popular TV channels in 2019, i.e., Antena3, Telecinco and LaSexta (VerTele!, accessed on 19/11/2019), as well as less popular ones, like RTVE, TV3 and DKiss. If this survey, or a similar one, will be used in the future, it would be advisable to present only the most popular channels as options.
6. ‘What should be improved in subtitles for the Deaf and Hard-of-Hearing? (More than one option is possible).’ Respondents were provided with seven possible answers, plus the option ‘other’;
 - 6a. ‘If you chose "other", please write here your suggestions for improvement.’ This question was particularly useful, as it allowed the respondents to express their opinions regarding those subtitling features that they would like to see changed in the future.
7. ‘How would you prefer the characters to be identified?’ Four possible choices were presented to the respondents, who in addition to those could select the option ‘other’;
 - 7a. ‘If you chose "other", please write here your suggestion for improvement.’ Like in question 6a, this question allowed the respondents to state their personal ideas regarding this topic, which was very important in the collection of the data;
8. ‘Would you use a specific page to consult the vocabulary used in each television program, if it existed?’.

The survey was organized according to simplicity and efficiency, according to the quick, straightforward responses this project needed to receive in order to be analysed to formulate possible conclusions and to make a statistical summary/report of the work done. Objective 8 of this research is thus for scholars and translators to open a new door to the world of the d/Deaf and the HoH in a new and direct way (page 19).

The results obtained from Part I of the project were used and integrated in the design of Part II of the project (see ‘O5’, page 19). Part II involves a comparative study of the subtitling service offered for Spanish audiences on three OTT platforms used around the world for streaming media, Netflix, Amazon Prime Video and HBO. The Spanish SDH and/or subtitles offered on these platforms were compared to highlight the differences and the similarities of these companies. For example, which kinds of subtitling services do the above-mentioned platforms offer to their users, i.e., subtitles, SDH or both? Which languages are available for the audio of each of the three audiovisuals analysed in this study? Which languages are available for the subtitles/SDH? Are the viewers provided with any possibility of customizing the subtitling services offered on each platform? If so, which ones? Which elements are the subtitling services reporting in their subtitles/SDH? Do they report information regarding music and/or background sounds? Are the characters on screen identified in any way? If so, how? These are just a few of the details that were taken into consideration when conducting the comparative analysis of the subtitling services provided by the above-mentioned OTT platforms.

The comparative analysis of Part II resulted to be extremely useful in the development of the three-phase-research, since the data retrieved in this study was applied to the creation and design of Part III, as well as in the review of the Standard UNE 153010:2012. Since no previous study on the subtitling services provided by Netflix, HBO and Amazon Prime Video was found at the time of the comparative analysis, Part II was conducted as an experiment involving the observation of the similarities and the differences of the three streaming platforms, as well as of the subtitling services available on each of them. Given the short amount of time that could be dedicated to each phase of this research project, Part II involves the comparison of only four episodes of three famous TV series, i.e., *GOT* (HBO), *Grey's Anatomy* (Amazon Prime Video) and *La casa de papel* (Netflix), and it focuses on highlighting the differences and the similarities among the subtitling services provided on each platform, as above mentioned.

The analysis was conducted between July 2020 and September 2020, its outcome was then compared with the results obtained from the survey conducted in Spain—during the first stage of the project—in order to probe whether the needs and wishes of the (selected) Spanish viewers are reflected in the subtitling and/or captioning service provided by Netflix, Amazon Prime Video and HBO. Part III was carried out in November 2020: a second and final survey was distributed in Spain to question the audience about possible criteria of creation for *Inclusive Subtitles* designed on the basis of the previously mentioned studies and their future use by Spanish broadcasters (see ‘O5’ and ‘O6’, page 19). Once again, the survey was addressed to the d/Deaf, the Hard of Hearing and hearers, amounting to 125 volunteers.

Since the community of the Deaf and the HoH is quite large and heterogeneous (page 4), I decided to adopt a research tool that would allow me to complete the task without causing any trouble or inconvenience to the community, i.e., a survey. In my opinion, for this PhD project, a survey was much easier to hand out and to analyse compared to other possible research methods, although each research method has its own purpose and all of them might be valid. Obviously, the objectivity of the results obtained in the two questionnaires partially depends on the actual number of the participants, as well as on their personal details—age, type of deafness, personal background etc.

28 participants were foreigners living in Barcelona, who were admitted to the study due to their ability to speak Spanish and to their use of subtitling services in Spain. When asked which one(s) of the languages mentioned in the survey was (or were) their mother tongue(s), 28 people answered “other”, which means that they were most probably foreigners living in Spain. However, since the survey’s aim was to discover the needs of the Spanish Audience with regards to the subtitling services offered on the National Digital Television, the nationality of the volunteers did not seem to alter the results of the study.

The survey of Part III consisted of only two sections, namely ‘Personal data’ and ‘Subtitling Features in Spanish Digital Television’. Like in Part I, the first section of the survey was inspired by *The Reception of Subtitles for the Deaf and Hard of Hearing in Europe* (2015) and the questions presented were very similar to the ones of section 1 in Part I. Indeed, ‘Personal data’ involved eleven questions, of which the first eight were the same as the ones used in section 1 of Part I, while the rest of them is here displayed:

9. 'Do you use a hearing aid or a cochlear implant?'. While this question is the same as in section 1 of Part I, the possible answers were different. As a matter of fact, the options were: 'Hearing aid'; 'Cochlear implant'; 'None of them' and 'Another hearing aid'. The option 'another hearing aid' was added to the possible answers to this question after the collection of data from Part I, where more than one volunteer admitted that they are not using a hearing aid or a cochlear implant, but another type of hearing aid. However, since no such option was included among the possible answers, they did not have the chance to choose this option.
10. 'How many hours a day do you watch TV?';
11. 'In what language(s) do you watch television? (More than one option is possible)'. The possible answers to this question were the following: 'Catalan'; 'Spanish'; 'English'; 'Original version' and 'Other'.

The second section of this survey consisted of ten questions, which are the following:

1. 'Do you use subtitles when you watch TV?';
2. 'If you chose "Yes, I do", why do you use them?';
3. 'How would you evaluate the size of the subtitles offered by the Spanish Digital Television?';
4. 'Would you like to regulate the size of the subtitles through your remote control?';
5. 'Would you like to regulate the colour of the subtitles through your remote control?';
6. 'Would you like to regulate the speed of the subtitles through your remote control?';
7. 'How would you prefer the characters to be identified?'. Four possible choices were presented to the respondents, who in addition to those could select the option 'other';
 - o 7a. 'If you chose "other", please write here your suggestions for improvement.'. Like in Part I, the data retrieved in questions asking the respondents' personal opinions resulted incredibly useful in this study, as the wishes and needs of some individuals of the (selected) Spanish Audience were retrieved;
8. 'What sound effects should be identified?';
9. 'Would you like to consult the vocabulary of each television program through teletext, if possible?';
10. 'Would you like to consult a summary of each television programme via teletext, if possible?'.

As it is possible to notice from the description of each of the three phases of this research project, the methodology chosen for this study is both qualitative and quantitative, as data was collected through the use of surveys and through a comparative analysis as well. It is important to highlight the fact that Action Research was also selected as methodological approach. Indeed, by asking the opinions of the volunteers taking part in the surveys of Part I and Part III, a collaboration of parts was created: researchers, receivers and external

parts were involved in the process. Theory and practice came together in this study in order to obtain a more complete understanding of the (selected) Spanish Audience's opinions regarding the subtitling services currently offered by the Spanish Digital Television.

As previously mentioned (page 37), many have been the methods and tools used in the field of AVT in order to analyse the urgencies and requirements *Inclusive Subtitles* should have to meet the audience's needs. The main three methods chosen by the majority of the scholars in Audiovisual Translation are Eye Tracking (Bogucka & Szarkowska 2019; Gerber-Morón & Szarkowska 2018; Orrego-Carmona, Dutka & Szarkowska 2018; Cambra et al. 2014), Questionnaires (Romero-Fresco, 2015b; Oehme, Upadrasta & Kotsch 2020; Goldblat & Most 2018) and Empirical Observation (Maulidiyah 2021; Agulló, Matamala & Orero 2018; Robert & Remael 2017). Besides these three main methodological approaches, a great example of innovative study was given by Joselia Neves in 2005 in her doctoral thesis. Neves did more than simply deepen in the knowledge of Subtitling for the Deaf and HoH. As a methodological approach she decided to use *Action Research* to reach her goal: “[...] what I purport to do in this research project is to show how theory and practice can knit together to arrive at a set of guidelines that are believed to have normative value in that reflect actual practises that are seen as ‘better’ practises” (Neves 2005: 43). As I hope I will be able to do, my intention is for subtitlers, researchers and the audience to work together from a new collaborative perspective, which is why the opinions of the (selected) Spanish Audience were retrieved through Part I and Part III. As mentioned above, the idea was first borrowed and shared by me from Neves' words:

“Researchers, practitioners and receivers all came together to describe and understand SDH with a will to improve their personal practices and to change the world around them. In fact, it is hoped that through this holistic dialogic approach SDH will be better understood as a whole: as a particular type of text, to be used by a special receiver, therefore to be conceived according to certain parameters, by professionals who know the makings of their endeavour” (Neves, 2005: 45).

Neves chose *Action Research* in order “to address the issue [of subtitling for the Deaf and HoH] from the inside.” (Neves, 2005: 45). As a matter of fact, Reason and Bradbury (2001: 01) explain that

“Action Research is a participatory, democratic, process concerned with developing practical knowing in the pursuit of worthwhile human purposes, grounded in a participatory worldview which we believe is emerging at this historical moment. It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities”.

From this statement it seems clear that only through a collaboration of parts—i.e., professors, students, Deaf associations, volunteers, and academia—it will be possible to accomplish the mission of decoding the best norms in Subtitling for the Deaf and HoH,

which also highlights the great worth of the audience's opinions and desires. Many studies have been conducted in this field for a better subtitling tactic or approach and even though much has been done, more shall still be discovered and, in my opinion, the key has to be found in a greater collaboration between translators, scholars, filmmakers and the d/Deaf (see '08', page 19).

As Meylaerts (2006: 05) suggests: "Translation can no longer be considered as 'the full transposition of one (monolingual) source code into another (monolingual) target code for the benefit of a monolingual target public'", a statement that highlights the heterogeneity of the audience all over the world and in each country as well. With regards to prelingual d/Deaf people, it is important to highlight that they are individuals with a severe and birthday-related state of hearing impairment. The language this community has learnt as their first language is the sign language of their country, i.e., Spanish Sign Language or Catalan Sign Language if they had been born in Spain or Catalonia, therefore Spanish—or Catalan—is the second language they learn. It is important to make this distinction in the context of making audiovisual productions truly accessible for all language communities and types of audiences. Neves (2009: 154) declares that "The (oral) national language is, even for those Deaf people who are Bi-Bi (bilingual and bicultural), a second language with all that this entails". It is no secret that the Deaf are usually lacking in reading and writing skills, however I agree with Tamayo (2017b: 79), when she states that "Making subtitled audiovisual products attractive might improve enjoyment in reading and might encourage children to venture into other types of reading and motivate them to keep learning and discovering, while helping to decrease social differences between oral and signing children". It is imperative to improve the enjoyment in reading and this could be achieved by improving the enjoyment of reading the subtitling services offered on the National Television. That is why, volunteers were asked their personal opinions regarding their own wishes and needs with regards to subtitling features that could be improved or how should the characters on screen be identified (page 152). All these information is key in the improvement of the subtitling services that are already offered on TV.

On another note, d/Deaf children usually have a quite limited vocabulary in comparison with children without any hearing impairments of their same age and not all scholars agree on whether this problem should be solved by simplifying the vocabulary chosen for the translation of multimedia content, or whether to maintain the vocabulary's difficulty in the translated text as well. There are some scholars who suggest translators should simplify both the vocabulary and the syntax of subtitles for Deaf and HoH children, while other researchers find this a questionable choice, as for example Tamayo (2017b: 03). The importance of subtitles in the acquisition of new vocabulary and 'the development of word recognition' is an opinion shared also by Zárata (2021: 42), who reminds us that subtitles represent a great tool for individuals learning a new language.

In my opinion, one should not underestimate the reading abilities of the heterogeneous group of DHH children and adults, and simplify the text used in the subtitles wholesale. The 'more complicated' vocabulary and syntax used in the original script of multimedia productions should be maintained as much as possible, since simplifying the audiovisual products does not really mean to help, but rather to limit the information and knowledge the d/Deaf can have access to. As Rodda and Grove (1987: 223) explain "Hearing impairment does not incapacitate their central comprehension processes. Provided deaf readers can grasp the semantic context of a message, they seem to be able to exploit the syntactical redundancy of natural language and to comprehend its contexts with surprising

degree of efficiency.” As Quigley and Paul (1984: 109) well affirm, the difference between DHH and hearers lies in the fact that the comprehension skills of hearers are simply more developed than the ones of DHH people when they start learning how to read (page 34).

According to Caimi (2006: 03), there is a visible educational element “when we consider the function that subtitled multimedia products have in our societies. Subtitles are one of the most powerful learning tools for a deaf child, just as a hearing child would learn from things heard”. This opinion is also supported by Neves (2005: 101), who states that

“Because people have a natural tendency to shy away from difficult situations, the best way to enhance reading is offering less skilled readers challenging opportunities where language is presented in a clear, systematic fashion.

Subtitled audiovisual texts might be a valuable tool to improve reading standards among the Deaf. The more people read, the better they will do so and moving from easy to more complex structures will be seen as victories rather than as insuperable hurdles”.

Therefore, it would be very interesting for subtitlers to introduce difficult words and phrase structures in their products by offering an extra support in the teletext page where the summary and/or explanation of the audiovisual production is. On the Teletext page subtitlers could create a second page called “vocabulary” where a few new words could be explained, as for example by writing ‘sister=nun’. This way, the audience could have access to more information before, during or even after, watching their favourite TV series, movie and so on. The creation of the ‘Vocabulary page’ was proposed to the volunteers of both Part I and Part III in order to obtain the (selected) Spanish Audience’s opinions on the matter.

Other researchers made use of other methodological approaches, such as Iriarte (2014a: 64) who states that “To examine viewers’ responses we may seek evidence of where attention or effort is deployed. Controlled experimental methods can be then used to record and measure eye movements, pupil or neuronal responses, using eye-tracking, pupillometry or electroencephalography (EEG). On the other hand, to analyse reaction and repercussion survey methods should be used: questionnaires (oral, written, online, self-administrated, etc.), interviews (unstructured, semi-structured, guided, etc.) or even additional standardized tests (on reading, oral and written comprehension, etc.)”. Iriarte continues by affirming (2014a: 65) that “A combination of approaches leads to a higher reliability, since it allows two or more levels to be addressed”. To be able to use more than one methodological approach will lead to more decisive results. However, the choice of the approach to use is always results based.

“For some time now, eye-tracking technology has been shown to be effective in determining, with reasonable accuracy, where people are looking, even in situations which are semiotically dense, such as the viewing of a subtitled film. Originally used regularly by the Belgian team led by Géry d’Ydewalle, eye-tracking technology proved to be beneficial in supplying information as to how subtitled audiovisual products are received, indirectly providing decisive information on the best modalities for their realisation, aimed at maximising their usability. On the basis of such promising results, eye-tracking research is being

increasingly and enthusiastically carried out, though in a scattered way, in several areas of the world.” (Perego, 2012: 07)

Another quite useful and generally used research tool is represented by questionnaires, which are the most common methodological choice by scholars when in need to ask for an evaluation and/or an opinion about a certain topic or service. Let’s consider for a moment “the long questionnaire devised as part of the DTV4All project in Spain” (Arnáiz-Uzquiza 2012: 69), a project born from the necessity of the creation of common Pan-European guidelines regarding SDH. As Arnáiz-Uzquiza (2012: 22) declares: “The project, ‘Digital Television for All (DVT4All)’, provided the ideal context for conducting SDH user centric research at an international level, and compared Spanish data with other countries which were part of the DVT4All project”. The above- mentioned study consisted in a great work of research during which many have been the methods chosen to thoroughly analyse the topic of interest, as the author affirms (2012: 73): “[...] the background to the DVT4All project is set by previous studies that have analysed the performance of the most representative SDH parameters in use in Spain (Bartoll & Martínez-Tejerina, 2010; Lorenzo, 2010; Pereira, 2010; Cambra et al., 2009).

All these examples, together with similar initiatives carried out in other countries (Kyle, 1992, Kirkland 1999, Neves, 2005), may be regarded as subjective data derived from preference surveys and comprehension questionnaires”. Since the aim of the research was to offer an improved subtitling service, Arnáiz-Uzquiza (2012) chose to add a questionnaire section in order to directly ask the personal opinion to the future audience.

My research makes use of surveys and data that can be analysed in percentages, which may seem as a common methodological choice. However, since I wish to actively contribute to both the academic investigation and to a better understanding of the Deaf Community and the *Inclusive Subtitles*, I decided to also use ‘Action Research’ as a methodological approach. As Dick (1993) declares: “[Action is meant] to bring about change in some community or organization or program and research [to increase understanding on the part of the researcher or the client, or both (and often some wider community)]”.

3.1 Tools and resources required

In this section I present the few tools and resources I have used to carry out my research. First of all, Mendeley: the tool I have used to organize the papers I selected and/or quoted in my work, since it is a program free of charge and easy to work with. The papers and literature I adopted in my study were found on certain websites, such as Google Scholar, Research Gate, Academia.edu, Duckduckgo and Google. Moreover, I used Mendeley and Adobe Reader to open and work on PDF files. Google Drive was used to store data and to collaborate with both my supervisors and with the participants of my survey, if needed. The surveys were developed through Google Drive Questionnaires, a tool that was chosen for the ease with which it was possible to create and to send the surveys to the various

participants of the study. Another important reason for this choice was due to the fact that this tool was able to collect all the responses from the participants in one place, as well as to show the statistics that derived from the data collected in each study. Once the surveys were considered ready to be distributed, they were sent to the associations for the Deaf and to some of the participants without hearing impairments through email. The reason the surveys were sent to both the participants and the associations for the Deaf through email was due to the configuration of Google Drive Questionnaires, which allows the creators of the questionnaires to forward the surveys to the recipients of the emails. However, not all participants were contacted by email, as they were also reached through Facebook. This online platform was considered the most appropriate social platform for the advertisement of the survey due to the possibility of posting a text in selected group pages directed to specific groups of people, such as groups of universities of Spain or groups of d/Deaf people with similar interests. The first survey consisted in six clips that participants were asked to watch and answer the corresponding questions, while the second questionnaire dwelled with just questions. In order to test the general comprehension skills of the participants in the first survey, the respondents were asked to watch a total of six clips from three different types of multimedia productions: The first two videos were chosen from advertising, the following two were selected from short movies and the final two clips from movie productions. The reason why it was decided to present two clips per multimedia production instead of only one was to be able to highlight possible patterns between the future responses of the participants, which would have been otherwise much more difficult to do with only one video per type of audiovisual production. All six clips were selected from Youtube. I downloaded the videos on my PC with the help of OnlineVideoConverter.com. Consequently, I decided to modify the videos and to remove the audio and subtitles from them by using AudioRemover.com, because all 104 participants should reply to my survey equally. In my opinion “Whether one considers people with normal hearing or hearing impairment, the lower the signal-tonoise ratio, the poorer is speech understanding and the greater the listening effort” (Stenfelt & Rönnerberg, 2009), therefore to leave the audio or the subtitles would have meant for the results not to be 100% reliable. On the contrary, by muting the videos, all participants were given the same chances of understanding the clips through their visual skills only. My choice of using such websites was directed by the format of their platforms, which was easy and of quick use. Finally, I created my personal Youtube Channel, on which I uploaded the new version of the selected videos and added them to the questionnaires. Before choosing the best clips for the questionnaire, I made sure all the videos included the Creative Commons Licence, in order to avoid any copyright infringements. Once I received the answers to the first questionnaire, I analysed the results through Microsoft Excel, a tool that allowed me to conduct statistical analysis and eventually create graphs.

For the comparative analysis I have subscribed to the three OTT platforms necessary to the study—i.e., Netflix, Amazon Prime Video and HBO—in order to get full access to the content available on them and to be able to look at all the subtitling options present on each streaming website. Finally, for Part III, I created a second survey with Google Drive Questionnaires and spread it all around Spain via social media and email.

4. THE STUDY

As mentioned above, this research project consists of a study divided into three stages. Part I is a survey-based reception study distributed in Spain between December 2019 and February 2020. The results obtained from Part I were used and integrated in the design of Part II of the project. Part II was carried out between July 2020 and September 2020 and it involves a comparative study between three Over-The-Top media services (OTT) used around the world for streaming media, Netflix, Amazon Prime Video and HBO, specifically for Spanish Audiences. The Spanish subtitling services offered on these platforms were compared to highlight the differences and the similarities of these companies. The outcome of this analysis was then compared with the results obtained from the survey conducted in Spain—during the first stage of the project—so that it could be probed whether the needs and wishes of Spanish viewers are reflected in the subtitling service provided by Netflix, Amazon Prime Video and HBO. Finally, during November 2020, a second and final survey (Part III) was distributed in Spain to question Spanish Audiences about possible criteria of *Inclusive Subtitling* creation designed on the basis of the previously mentioned studies and their future use by Spanish broadcasters.

Therefore, the data collected in this doctoral thesis is representative of the studies conducted during the three years of research, however further research and complementary statistical analysis could be conducted in the future with the final aim of retrieving more accurate information from the results collected in the three phases of the study.

The clips were selected from Youtube and they did not exceed the three minutes' length. Although all six videos presented Creative Commons Licence, the owner of each video was contacted by email in order to obtain a written consent regarding the right of use of their clips. The idea was to ask the participants to watch such videos and to express their impressions and comments about them with reference to the level of difficulty and consequent understanding of said audiovisual productions. The reason why such videos were chosen was due to their length and the presence, or absence, of dialogues in them. As previously mentioned, the research study consisted in a total of six different videos to watch, during which some of them presented a low level of speech, in others the dialogues were more present and, in some others, there were long conversations.

The first objective of such research was to investigate the deduction ability of the (selected) Spanish Audience in three very different cases: the first section consisted in two videos from the field of advertisement. It was expected a high comprehension level from all participants, insofar as the two audiovisual pieces did not have neither speech nor sound, that is, they were devised to be understood without sound; in the second section speech was a little present and it might have been more difficult to grasp the whole content of the short videos; finally, the third section was dedicated to the genre of movie production, where speech and conversations between characters was generally very present, which could have resulted to be a problem if the audience was not offered the help of subtitles. The final aim of this research is to prove that the development of their observational skills is so high, that there is the need for subtitles for the Deaf and HoH to change in their structure, to leave certain details implicit and to make others explicit.

With regards to the first and the last phases of this research study, the participants were provided with both a written description and a sign language (SL) interpretation of the surveys. Although no SL interpretation of the questions present in the two surveys was

offered to the participants, anyone who wished to take part in the study could send me an email asking for an explanation regarding the questions of the surveys, or any other matter related to the study, at any time.

As mentioned above (page 63), it is important to highlight that the data collected in this three-phases-research is representative of the the data collected in the three parts of this research project, however further research would be required to be able to draw more definitive conclusions.

With reference to the participants, no control group was used in either the first or in the last surveys of this research project, since the Spanish Audience consists of a heterogeneous group of people comprising individuals with different needs and expectations, different levels of hearing, as well as different expertise levels of one (or more) sign language(s) and/or oral language(s), the aim was to draw possible general conclusions regarding the entire (selected) Spanish Audience.

4.1 Part I

a) Introduction

The design and the questions of the survey were inspired by the studies realized in *The reception of subtitles for the deaf and hard of hearing in Europe* (2015b). Once the study was ready to be advertised and distributed among Spanish viewers, and viewers living in Spain, participants were made aware of the survey through a descriptive email sent to all Spanish Deaf Associations and the publication of the survey's link. Many Deaf Associations were contacted directly, although only six Deaf Associations and FESOCA (the Association for the Deaf of Catalonia Region) offered to help in the distribution process in Catalonia and in the rest of Spain. Thus, each association inclined to participate in the study could decide whether to distribute the study among their members or not. Respondents did not need to be contacted directly, which speeded up the process and ensured anonymity. The same method was chosen to announce the survey on Facebook, where a descriptive post—as well as the link—of the inquiry were published between December 2019 and January 2020, and through the help of the Pompeu Fabra University (UPF). Professors Delfina Aliaga Emeterio and Gemma Barberà Altimira agreed to advertise my first survey on the LSC-Lab website, which is part of the UPF online platform. Facebook was chosen as the designated social network to reach as many volunteers as possible enabling contacts with groups of different kinds of users with varying interests, such as 'Sordos de España', 'Cocina Sorda', but also groups from various universities in Spain, like the 'Universitat Pompeu Fabra' group.

The survey—called 'Survey on SDH in Spain 2019' (SSDHIS19)—is divided into three main parts: 1) Personal Data, 2) Video-based survey, and 3) Special needs. The initial part of the survey consists of a set of ten background questions to collect relevant personal information: age, sex, mother tongue, common form of communication, education, employment, type of deafness (if the case), age when it occurred, type of hearing device

(if one is used) and time they usually spend watching TV daily. In Part II, respondents are asked to watch six video clips with no audio and no subtitles: two advertisements, two short movies and two movie productions with Creative Commons License. Each video is followed by five comprehension questions. The clips are between 1:10 and 2:31 minutes and they were all originally filmed in Spanish, which was considered an essential detail to lip read. As Chung & Zimmerman (2018) affirm

“In lip-reading there is a fundamental limitation on performance due to homophemes. These are sets of words that sound different, but involve identical movements of the speaker’s lips. Thus they cannot be distinguished using visual information alone. For example, in English the phonemes ‘p’ ‘b’ and ‘m’ are visually identical, and consequently the words *mark*, *park* and *bark*, are homophemes (as are *pat*, *bat* and *mat*) and so cannot be distinguished by lip-reading. [...] Apart from this limitation, lip-reading is a challenging problem in any case due to intra-class variations (such as accents, speed of speaking, mumbling), and adversarial imaging conditions (such as poor lighting, strong shadows, motion, resolution, foreshortening, etc.)”.

Finally, the third part of the survey presents eight questions addressing the needs of each member of the (volunteering) Spanish Audience and their own suggestions on how to improve the current subtitling services in Spain. Respondents are asked to share their point of view and since many were the subgroups of the participants—hearers, prelingual d/Deaf, postlingual d/Deaf, hard-of-hearing, but also volunteers with cochlear implants or without a hearing aid—, the results obtained are diverse. Some participants even left suggestions.

A total of 104 participants took part in the study, including 31 prelingual d/Deaf, 7 postlingual d/Deaf, 4 hard-of-hearing and 62 hearers. The main focus was placed on involving both DHH respondents and hearers, since the audience of the Spanish Digital Television in Spain is widely heterogeneous and no distinction in the subtitling service is made by the various TV channels. Once respondents agreed to take part in the study, they were provided, in the first part of the survey, with a written presentation of the study, which included explanations regarding the nature and structure of the project. Thanks to the help of Professor Delfina Aliaga Emeterio (UPF), a translation in Catalan Sign Language (LSC) of the instructions was also provided to make sure that the survey’s content was properly understood by all participants. No sign-language interpretation was provided for the content of the questions.

Prior to the test, all respondents were asked to confirm their understanding of the study’s nature and to agree to take part in it freely. Respondents were not asked to sign any Informed Consent form before starting the survey, as the UPF ethics committee (CIREP) understands that in the case of a research project that can be conducted without identification of participants, ethics obligations can be fulfilled by presenting a copy of the Informed Consent to participants that provides all the relevant information of the project and the commitment of the principal investigator to give the Informed Consent and seek informal (not recorded) consent from the participants.

b) Survey design

Google Drive Questionnaires was chosen for its intuitive design features; it automatically stores and processes data as percentages making the final data analysis easy and fast. Moreover, respondents could access the survey from any device, desktop, laptop, or handheld, by simply clicking on the link sent to them through email or the one published on Facebook. Their answers were saved and sent to the ‘results area’ of the survey.

As mentioned above, the questions presented in SSDHIS19 are structured into three parts: 1) Personal data, 2) Video-based survey, and 3) Special needs. In the personal data section, the items were closed questions only, with some allowing more than one answer. No videos were displayed there. In the video-based survey section, six clips are presented to the respondents followed by five closed questions about the comprehension of these clips. They could watch the clips either in the survey or in a bigger format by clicking on the Youtube link. In the third and last section, participants are asked to reply to eight final questions regarding special needs associated with their experience when watching audiovisual productions. Two of the eight items offer respondents the possibility to further explain their personal opinions—i.e., they could answer a sub- question. No clip is displayed here either.

As mentioned above, the clips presented in the survey were selected of three types: advertising, short movies and feature films; this was to investigate different types of multimedia production, in the interest of proving the validity of the retrieved data on a general level. The clips could only be added to the survey in Google Form provided they were taken from Youtube. However, they were meant to be presented without sound or subtitles. Therefore, the videos were first selected from Youtube, then an email was sent to the owner of each clip to request the right of use of the copyrighted material for the study. Once the authors received all necessary consents, the clips were downloaded with 4K Video Downloader. Next, the audio was removed from the clips by using the MP4Compress.com tool, and finally, the clips were uploaded to a private Youtube channel.

From the responses collected in this study it is possible to affirm that generally speaking, the videos considered to be the most difficult to understand by the participants were clips 2, 5 and 6. The actual meaning of the clips was not always understood, even though the videos could seem quite straightforward to follow. Possibly, the absence of sounds and subtitles did not allow the respondents to apprehend the full meaning of every clip. Moreover, the need for subtitles and sign language was felt by most participants in all six videos, regardless of any hearing impairment.

DHH participants were expected to show a better level of clip comprehension compared to the hearers, due to the fact that they depend more on their visual skills in comparison to hearers (Marschark et al. 2013: 156).

c) Personal data

This section consists of 10 general questions about the respondents’ background.

Participants belong to five age groups: i) 18 to 30, ii) 31 to 45, iii) 46 to 55, iv) 56 to 65, and v) over 65. Total numbers and percentages for each group break down into: group (i) 40 (38.5%); (ii) 36 (34.6%); (iii), 21 (20.2%); (iv) 6 (5.8%); and only one person over 65 (1% of the total).

More women than men took part in the study (73.1% vs. 26.9%).

Respondents' mother tongues yielded the following results: 58.7% Spanish, 15.4% Catalan, 22.1% Spanish Sign Language (LSE), 15.4% Catalan Sign Language (LSC), 28.8% other language/s.

Regarding the language most often used by participants, the following percentages are yielded: 82.7% Spanish, 30.8% Catalan, 24% LSE, 18.3% LSC, 7.7% lip reading, 13.5% for a combination of LSE and lip reading as main means of communication, 7.7% combine LSC and lip reading, while the remaining 28.8% chose the option 'other'. As for education, 4.8% of the respondents had primary school, 11.5% secondary education, 26.9% professional education, 51.9% university studies, and 4.8% 'other'.

As for the participants' working status, most of them were employed at the moment they answered the survey (76%), 17.3% of which worked and studied; 2.9% retired; 5.8% unemployed; 11.5% studying; the remaining 3.8% chose 'other'.

There were 59.6% hearers, 29.8% prelingual d/Deaf, 6.7% postlingual d/Deaf and 3.8% hard-of-hearing.

The age when the participants became d/Deaf or HoH provided these percentage results: 57.7% hearers, 19.2% hearing impaired since birth, 8.7% under the age of 2, 8.7% aged 2-4, 3.8% aged 5-19, and the remaining 1.9% aged 30-49.

None of the respondents lost their hearing at an advanced age, and this is not surprising because only one respondent was older than 65. It would also be interesting to see if the results were the same with a higher number of elderly people taking part in the study.

The use of hearing aids or cochlear implants yielded the following results: 76% of the respondents do not have any hearing aid, whereas 18.3% have a hearing aid and 5.8% use a cochlear implant.

The last item on the questionnaire addressed the amount of time the respondents spend in front of the television per day, it is noteworthy that most of the respondents do not spend much time watching TV: 28.6% no more than half an hour per day, 22.1% 30-60 minutes per day, 27.9% 1-2 hours per day, 14.4% 2-3 hours per day, and 8.7% more than 3 hours per day.

As it is possible to notice from the questions above mentioned, all participants were asked the same questions, regardless of their hearing impairment or their lack of it. For example, all participants were asked to declare their mother tongue, or mother tongues in case they would have had more than one, as well as about the language(s) that they use the most on a daily basis. These questions aimed at highlighting possible connections between the respondents' ability to speak one, or more, sign language(s) and their use of either SDH or of sign language (SL) interpretation services, or both. Since the final aim of this three-phase-research study was to write a list of criteria for translators to use when creating

Inclusive Subtitles in Spain, it seemed relevant to inquire the respondents about the languages that they use, whether they would be

spoken languages or sign languages, their use of SDH and SL interpretation services, as well as the participants' wishes to be provided with SDH and/or SL interpretation on the National Television. In the first survey, after each video, the respondents were asked to declare whether they would have preferred the clip to offer subtitles services, SL interpretation services, or both. Similar questions were also asked in the final phase of this doctoral thesis, in order to be able to find possible connections between the three phases of the study, as well as to highlight the (selected) Spanish Audience's wishes with regards to SDH and SL interpretation services on the Spanish Digital Television.

d) Video-based survey

Video 1

Video 1 is a Spanish advertisement about poverty in Spain called *Contra la pobreza*, which was created by the European Anti-Poverty Network of Spain (EAPN-ES) and by the Quepo Foundation in 2013. EAPN-ES is an independent confederation of NGOs and other affiliations of people working against poverty and social exclusion in Europe, while Quepo is a non-profit cooperative of communication activists of Barcelona that use communication as a tool of social impact, but also as a communitarian process. Their aim is to get rid of the idea that communication is an instrument to sell, in order to reappropriate its collective sense as a common space. *Contra la pobreza* was made on the occasion of the International Day for the Eradication of Poverty, October 17th. With the aim of making visible the structural aspect of poverty and exclusion and directly challenging the viewers, confronting them with their own prejudices, and inviting them to realize that poverty is a series of circumstances that can happen to anyone. The audiovisual was filmed in Barcelona with the work of a team of more than 30 film professionals and companies in the audiovisual sector.

The clip lasts 2:31 minutes and no-one can be seen speaking in close-up. A man with a shopping trolley is checking the trash bins of a dark alley, probably looking for some clothes to keep him warm or maybe some leftovers for him to eat. He finds a couple of bags that interest him and puts them in his trolley, then he combs his hair, he turns and looks at the camera. Another man appears and starts talking directly to the camera. The speaker explains that the poor are invisible to society and every day more people become poor. Prejudices are just an excuse to disengage from the poor, to ignore them, to hide their tragic lives, while poverty was never caused by the crisis, but it always existed. He says that this is why it is our obligation to eradicate the problem and to build a fairer system for everyone. Finally, the speaker stops talking and his face is turned into a drawing in black and white. Then the advertisement finishes.

After watching the video, volunteers are asked to express their personal opinion regarding the difficulty of the clip on a scale of 1 to 5, where 1 stands for ‘very easy’ and 5 stands for ‘very difficult’. Most of the respondents thought it was very difficult to understand this clip (36.5% of the respondents), while similar results were yielded for the ‘somewhat difficult’ (25%) and ‘not easy but not difficult either’ (26%) options. 10.6% thought this video was ‘somewhat easy’ to understand and 1.9% affirmed it was ‘very easy’.

The results obtained by calculating the percentage of DHH participants in each answer are the following: of the 36.5% of all participants who selected the ‘very difficult’ option, 57.8% were DHH and 42.2% were hearers; of the 25% of the ‘somewhat difficult’ option, 34.6% DHH vs. 65.4% hearers; of the 26% of the ‘not easy but not difficult either’ option, 22.2% DHH vs. 77.8% hearers; of the 10.6% of the ‘somewhat easy’ option, 36.3% DHH vs. 63.7% hearers; of the 1.9% of the ‘very easy’ option, 50% DHH vs. 50% hearers.

Table 1 displays the results obtained in the evaluation of the difficulty level of Video 1 presented in this study. Each of the following tables presents the total results first (in bold), followed by the percentage of the DHH and the hearers’ share.

Table 1.

Difficulty of the clip in Video 1					
	Very easy	Somewhat easy	Not easy but not difficult	Somewhat difficult	Very difficult
All Participants	1.9%	10.6%	26%	25%	36.5%
DHH	50%	36.3%	22.2%	34.6%	57.8%
Hearers	50%	63.7%	77.8%	65.4%	42.2%

The second question (Q2) addresses the comprehension of Video 1. Three options are presented to the respondents: a correct answer (the clip is about poverty), a distractor (it is about unemployment in older people) and a ‘not sure’ option. 47.1% answered correctly, 12.5% answered incorrectly, while 40.4% declared not to be sure.

The results obtained by calculating the percentage of DHH participants in each answer are the following: 34.6% of the correct answers were DHH participants and 65.4% were hearers; 69.2% of the incorrect answers were DHH participants and 30.8% were hearers; 38% of the ‘not sure’ option were DHH participants and 62% were hearers.

Table 2.

Meaning of Video 1

	Correct answers	Incorrect answers	‘Not sure’ option
All Participants	47.1%	12.5%	40.4%
DHH	34.6%	69.2%	38%
Hearers	65.4%	30.8%	62%

Q3 requests the respondents’ opinion on the need for adding subtitles to Video 1 or not.

The options are:

1. Yes, the clip needs subtitles;
2. No, the clip does not need subtitles;
3. I am not sure, however personally I would have had a better understanding of the clip with the help of subtitles.

80.8% affirmed that they would have had a better understanding of the clip with the help of subtitles, 2.9% declared that they would not have needed any subtitles, while the remaining 16.3% stated not to be sure.

The results obtained by calculating the percentage of DHH participants in each answer are the following: for option 1 (yes), 45.2% were DHH and 54.8% were hearers; for option 2 (no), 0% DHH vs. 100% hearers; for option 3 (not sure), 17.6% DHH vs. 82.4% hearers.

Table 3.

Subtitles in Video 1

	Yes	No	Not sure, but maybe better with subtitles
All Participants	80.8%	2.9%	16.3%
DHH	45.2%	0%	17.6%
Hearers	54.8%	100%	82.4%

Q4 asks for each respondent’s opinion on the need to add sign language (SL) interpretation to Video 1 or not. Here, participants are to choose whether Video 1 would be easier to understand with the help of SL interpretation or whether the clip is understandable without any interpretation in SL. The options are:

1. Yes, this clip needs SL interpretation;

2. No, this clip does not need SL interpretation;
3. I am not sure, however personally I would have had a better understanding of the clip with the help of SL interpretation.

59.6% thought that SL interpretation was required, while 26.9% did not think it was necessary and 13.5% were not sure.

The percentages of DHH participants in each answer are the following: of all affirmative answers, 43.5% were DHH and 56.5% were hearers; of all negative answers 39.2% DHH vs. 60.8% hearers; of all unsure answers, 28.5% DHH vs. 71.5% hearers.

It is important to highlight that 41.3% of all participants speak at least one sign language, 21% speak Catalan Sign Language (LSC) and 23% speak Spanish Sign Language (LSE). Therefore, it could be argued that the reason why some respondents answered negatively could be due to the fact that they speak LSE instead of LSC. However, DHH and hearers had very similar opinions regarding this matter.

Table 4.

SL interpretation in Video 1

	Yes	No	Not sure, but maybe better with SL interpretation
All Participants	59.6%	26.9%	13.5%
DHH	43.5%	39.2%	28.5%
Hearers	56.5%	60.8%	71.5%

Q5 is designed to find out each respondent's opinion on the additional information they wish they had received when watching the clip:

- a) 24% of respondents considered a summary of the clip's content would help;
- b) 6.7% of respondents thought a description of the characters would be useful;
- c) 54.8% of respondents reckoned it would be interesting to have information about other sounds rather than the main voice itself such as noises, background voices;
- d) 4.8% affirmed they would have liked some other element, besides the ones offered in this question;
- e) finally, respondents were asked whether they thought they did not need any of the previously mentioned options, which resulted in 9.6% of the total.

The results obtained by calculating the percentage of DHH participants in each answer are the following: of all the answers for the 'content's summary' option, 40% were DHH and

60% were hearers; of all the answers for the ‘characters’ description’ option, 42.8% DHH vs. 57.2% hearers; of all the answers for the ‘sounds, noises or voices’ option, 38.5% DHH vs. 61.5% hearers; of all the answers for the ‘something else’ option, 0% were DHH and 100% were hearers; of all the answers for the ‘nothing’ option, 70% DHH vs. 30% hearers.

As it is possible to see from the results collected in Q5, the data highlight a stronger need for additional information felt by a majority of hearers, while the DHH share represented the majority of the answers only in the option ‘nothing’. What is surprising is that in Q1 the majority of DHH participants affirmed Video 1 to be ‘very difficult’, a result that was confirmed in Q2, as most DHH participants (69.2%) did not understand the meaning of Video 1 and 38% were not sure whether they understood correctly the meaning of the clip (page 69).

The percentages displayed in Table 5 correspond to the percentage results obtained on Google Drive Questionnaires. However, the total sum of the shares adds up to 99.9% instead of 100%. The percentages have been reported in the table as they are, without being modified, since it was thought that 0.01% would not impact on the retrieved results.

Table 5.

Additional information in Video 1

	Content’s summary	Characters’ description	Sounds, noises or voices	Something else	Nothing
All Participants	24%	6.7%	54.8%	4.8%	9.6%
DHH	40%	42.8%	38.5%	0%	70%
Hearers	60%	57.2%	61.5%	100%	30%

Video 2

Video 2, called *#StopUber*, is a Spanish advertisement of the political party Podemos about the great number of Ubers in Spain. In Video 2, two men are filmed while having a conversation about the ‘Uber’ company and its regulations, which seem not to respect the general laws of public transportation in Spain, unlike taxis. The clip’s aim is to make people reflect on the changes that Podemos could apply in this sector if enough voters were to vote for them. The clip lasts for 1:17 minutes and—unlike Video 1—the characters here first talk to each other and then directly to the camera, in turns.

As in Video 1, Q1 addresses the difficulty of the video on a Likert scale of 1 to 5, where 1 stands for ‘very easy’ and 5 stands for ‘very difficult’. For 69.2% it was very difficult to

understand this video clip (Table 6); for 21.2% it was ‘somewhat difficult’; for 4.8% the clip was ‘not easy but not difficult either’; for 1.9% it was ‘somewhat easy’ and for the remaining 2.9% it was ‘very easy’.

The results obtained by calculating the percentage of DHH participants in each answer are the following: of the 69.2% of all participants who selected the ‘very difficult’ option, 40.2% were DHH and 59.8% were hearers; of the 21.2% of the ‘somewhat difficult’ option, 40.9% DHH vs. 59.1% hearers; of the 4.8% of the ‘not easy but not difficult either’ option, 60% DHH vs. 40% hearers; of the 1.9% of the ‘somewhat easy’ option, 0% DHH vs. 100% hearers; of the 2.9% of the ‘very easy’ option, 33.3% DHH vs. 66.7% hearers.

From these results it is possible to affirm that the hearers’ share appeared to find Video 2 slightly more difficult than the DHH share, which represented the majority of answers only in the option ‘not easy, but not difficult either’. Indeed, in both ‘somewhat difficult’ and ‘very difficult’, the hearers’ share represented the majority of answers.

Table 6.

Difficulty of the clip in Video 2

	1=Very easy	2=Somewhat easy	3=Not easy but not difficult	4=Somewhat difficult	5=Very difficult
All Participants	2.9%	1.9%	4.8%	21.2%	69.2%
DHH	33.3%	0%	60%	40.9%	40.2%
Hearers	66.7%	100%	40%	59.1%	59.8%

Q2 asks about the comprehension of Video 2. Three options are presented: a correct answer (the clip is about the great number of Ubers in Spain), a distractor (the clip is about the Spanish political party Podemos) and a ‘not sure’ option. It is worth noting that 81.7% were not sure about the meaning of the clip, only 11.5% of respondents answered correctly and the remaining 6.8% answered incorrectly.

The results obtained by calculating the percentage of DHH participants in each answer are the following: 50% of the correct answers were DHH and 50% were hearers, so there is no distinction between DHH and hearers; 42.8% of the incorrect answers were DHH participants and 57.2% were hearers; 34.1% of the ‘not sure’ option were DHH participants and 65.9% were hearers.

Although in Q1 the DHH share did not seem to find Video 2 as struggling as the hearers’ share, the data collected here does not correspond to the DHH share’s impressions on this clip. As a matter of fact, the results retrieved in Q2 appear to highlight that the DHH share was quite confused regarding the meaning of Video 2, which was correctly interpreted only by 11.5% of all participants.

Table 7.

Meaning of Video 2

	Correct answers	Incorrect answers	'Not sure' option
All Participants	11.5%	6.8%	81.7%
DHH	50%	42.8%	34.1%
Hearers	50%	57.2%	65.9%

Q3 inquiries about the respondents' opinion on the need to add subtitles to Video 2 or not. Participants are to declare whether they would have a better understanding of Video 2 with the help of subtitles or without them. 94.2% affirmed that they would have appreciated the presence of subtitles, only 1.9% thought that they did not need subtitles, and 3.8% were not sure but considered they would have had a better understanding of the clip with the help of subtitles.

The results obtained by calculating the percentage of DHH participants in each answer are the following: for option 1 (yes), 41.8% were DHH and 58.2% were hearers; for option 2 (no), 0% DHH vs. 100% hearers; for option 3 (not sure), 25% DHH 75% hearers.

From these results it can be inferred that the majority of participants found the need to add subtitles quite relevant to the understanding of Video 2. What is surprising is that the majority of the participants who declared to have felt the need for subtitles consisted of hearers, even though the DHH share did not see to have understood the meaning of Video 2.

The percentages displayed in Table 8 correspond to the percentage results obtained on Google Drive Questionnaires, however the total sum of the shares adds up to 99.9% instead of 100%. The percentages have been reported in the table as they are, without being modified, since it was thought that 0.01% would not impact on the retrieved results.

Table 8.

Subtitles in Video 2

	Yes	No	Not sure, but maybe better with subtitles
All Participants	94.2%	1.9%	3.8%
DHH	41.8%	0%	25%
Hearers	58.2%	100%	75%

Q4 asks for each respondent’s opinion on the need to add SL interpretation to Video 2 or not. Participants are to affirm whether they would have a better understanding of Video 2 with the help of SL interpretation or without it. 72.1% stated that they would have had a better understanding of the clip with the help of SL interpretation, 18.3% considered the clip does not need SL interpretation, and 9.6% were not sure but thought they would have a better understanding of the clip with the help of subtitles.

The results obtained by calculating the percentage of DHH participants in each answer are the following: for option 1 (yes), 38.6% were DHH participants vs. 61.4% were hearers; for option 2 (no), 47.3% DHH vs. 52.7% hearers; for option 3 (not sure), 40% DHH vs. 60% hearers.

As shown in Q4, a clear majority of hearers affirmed that they would have had a better understanding of Video 2 with the help of sign language interpretation, while the majority of DHH participants stated that they did not need it. As mentioned above (page 70), 41.3% of all participants declared to speak at least one sign language, which might be the reason why so many hearers wished that Video 2 would have provided sign language interpretation.

Table 9.

SL interpretation in Video 2

	Yes	No	Not sure, but maybe better with SL interpretation
All Participants	72.1%	18.3%	9.6%
DHH	38.6%	47.3%	40%
Hearers	61.4%	52.7%	60%

Q5 is aimed at getting to know each respondent’s opinion on the additional information they wish they had received when watching the clip:

- a) 30.8% of respondents considered a summary of the clip’s content would help;
- b) 11.5% thought a description of the characters would be useful;
- c) 40.4% of respondents reckoned it would be interesting to have information about other sounds rather than the main voice itself, like noises or background voices;
- d) 6.7% affirmed they would have liked some other element, besides the ones offered in this question;
- e) finally, respondents were asked whether they thought they did not need any of the previously mentioned options, which resulted in 10.6% of the total. From what might be inferred here, most of DHH respondents did not think additional information was required in Video 2.

The results obtained by calculating the percentage of DHH in each answer are the following: of all the answers for the ‘content’s summary’ option, 34.3% were DHH vs. 65.7% hearers; of all the answers for the ‘characters’ description’ option, 33.3% DHH vs. 66.7% hearers; of all the answers for the ‘sounds, noises or voices’ option, 45.2% DHH vs. 54.8% hearers; of all the answers for the ‘something else’ option, 28.5% DHH vs. 71.5% hearers; of all the answers for the ‘nothing’ option, 54.5% DHH vs. 45.5% hearers.

Like in Q5 of Video 1 (page 72), the results retrieved in Q5 of Video 2 show a higher percentage of hearers with regards to the additional information that the participants would have liked to be provided with when watching the clip. Indeed, the hearers share represents the clear majority of votes in the answers ‘content’s summary’, ‘characters’ description’ and ‘something else’, while the option ‘sounds, noises or voices’ was chosen by a slight majority of hearers. Finally, the option ‘nothing’ presented a slight majority of DHH participants.

Most votes were retrieved in the option ‘content’s summary’, which is in line with the results collected in Q2 of Video 2 (page 74), since 81.7% of all participants declared not to be sure about the meaning of the clip.

Table 10.

Additional information in Video 2

	Content’s summary	Characters’ description	Sounds, noises or voices	Something else	Nothing
All Participants	30.8%	11.5%	40.4%	6.7%	10.6%
DHH	34.3%	33.3%	45.2%	28.5%	54.5%
Hearers	65.7%	66.7%	54.8%	71.5%	45.5%

Video 3

Video 3 is the first of the two videos of the short-movie type. The clip, called *Sinceridad* (“Sincerity”), is a comedy drama written and produced by film director Andrea Casasena Ferrer in 2013 and it was also preselected for Goya Awards. In this short movie, a family living in a society where working is considered wrong and taboo is having a discussion with their son, who is confessing to them to have found a job. The son is afraid of telling his parents about his achievement, due to the ‘values’ of his family, who are immediately shocked and already considering different ways to face this ‘problem’. The clip was filmed in colour, it lasts 2:02 minutes and the characters directly address the camera.

Q1 inquires the respondents' personal opinion regarding the complexity of the clip on a scale of 1 to 5, where 1 stands for 'very easy' and 5 for 'very difficult'. 45.2% thought that the clip was 'very easy', 26.9% affirmed it was 'somewhat easy', 18.3% declared the clip to be 'not easy, but not difficult either', 7.7% said that the clip was 'somewhat difficult' and the remaining 1.9% thought that it was 'very difficult'.

The results obtained by calculating the percentage of DHH participants in each answer are the following: of the 1.9% of all participants who selected the 'very difficult' option, 48.9% were DHH and 51.1% were hearers; of the 7.7% of the 'somewhat difficult' option, 32.1% DHH vs. 67.9% hearers; of the 18.3% of the 'not easy but not difficult either' option, 26.3% DHH vs. 73.7% hearers; of the 26.9% of the 'somewhat easy' option, 25% DHH vs. 75% hearers; of the 45.2% of the 'very easy' option, 100% DHH vs. 0% hearers. As it is possible to notice, the respondents who found Video 3 'very easy' were 100% DHH respondents, while the majority of hearers found the clip only 'somewhat easy' or 'not easy, but not difficult either'. This could be due to the characters talking directly to the camera.

Table 11.

Difficulty of the clip Video 3

	1=Very easy	2=Somewhat easy	3=Not easy but not difficult	4=Somewhat difficult	5=Very difficult
All Participants	45.2%	26.9%	18.3%	7.7%	1.9%
DHH	100%	25%	26.3%	32.1%	48.9%
Hearers	0%	75%	73.7%	67.9%	51.1%

Q2 asks about the comprehension difficulty of Video 3. Three options were presented to the respondents: a correct answer (the clip is about a family that does not value sincerity as something positive), a distractor (it is about sincerity as family value) and a 'not sure' option. 6.7% of all respondents answered correctly, while 53.8% answered incorrectly, and 39.4% were not sure about the meaning of the clip.

These are the results obtained by calculating the percentage of DHH participants in each answer: 28.2% of the correct answers were DHH participants and 71.8% were hearers; 39.2% of the incorrect answers were DHH participants and 60.8% were hearers; 43.9% of the 'not sure' option were DHH participants and 56.1% were hearers.

Although the majority of participants found this clip to be 'very easy', only 6.7% of all participants correctly understood the meaning of the clip. Indeed, the majority of all participants answered incorrectly to Q2 and the majority of votes belonged to the hearers'

share, while the DHH participants seemed to be divided on this matter and voted mostly the option ‘not sure’.

The percentages displayed in Table 12 correspond to the percentage results obtained on Google Drive Questionnaires, however the total sum of the shares adds up to 99.9% instead of 100%. The percentages have been reported in the table as they are, without being modified, since it was thought that 0.01% would not impact on the retrieved results.

Table 12.

Meaning of Video 3

	Correct answers	Incorrect answers	‘Not sure’ option
All Participants	6.7%	53.8%	39.4%
DHH	28.2%	39.2%	43.9%
Hearers	71.8%	60.8%	56.1%

Q3 inquiries about the respondents’ opinion on the need to add subtitles to Video 3 or not. 90.4% considered that the clip needs subtitles, 1.9% thought the clip does not need subtitles and the remaining 7.7% were not sure but considered they would have a better understanding of the clip with the help of subtitles.

The results obtained by calculating the percentage of DHH participants in each answer are the following: for option 1 (yes), 41.4% were DHH participants and 58.6% were hearers; for option 2 (no), all respondents (out of 1.9%) were hearers; for option 3 (not sure), 12.5% DHH vs. 87.5% hearers. It is important to highlight that the percentage results of those respondents who did feel the need for subtitles in Video 3 was extremely high, 90.4%.

The data retrieved in this question seems to be in line with the results obtained in Q2 (page 77), as the great majority of participants did not understand the meaning of Video 3.

Table 13.

Subtitles in Video 3

	Yes	No	Not sure, but maybe better with subtitles
All Participants	90.4%	1.9%	7.7%
DHH share	41.4%	0%	12.5%
Hearers share	58.6%	100%	87.5%

Q4 asks for each respondent’s opinion on the need to add SL interpretation to Video 3. Most of them (69.2%) stated that the clip needs SL interpretation, 21.2% considered the clip does not need SL interpretation, and 9.6% were not sure but thought they would have a better understanding of the clip with the help of subtitles.

The results obtained by calculating the percentage of DHH participants in each answer are the following: for option 1 (yes), 36.1% were DHH participants and 63.9% were hearers; for option 2 (no), 50% DHH vs. 50% hearers; for option 3 (not sure), 40% DHH vs. 60% hearers.

Again, it is imperative to pay attention to the percentages yielded in this question. Most respondents declared that they would have had a better understanding of Video 3 with the help of SL interpretation, a result we would expect from the Deaf Community. However, data show that of the 69.2% of the affirmative answers, 63.9% were hearers, whereas only 36.1% were DHH volunteers. Similar results are shown in the ‘not sure’ option, where of the 9.6% of the total, 60% were hearers and 40% were DHH participants. Basing ourselves on these results, it seems like sign language interpretation does not benefit the Deaf Community alone, but the hearers too.

Table 14.

SL interpretation in Video 3			
	Yes	No	Not sure, but maybe better with SL interpretation
All Participants	69.2%	21.2%	9.6%
DHH	36.1%	50%	40%
Hearers	63.9%	50%	60%

Q5 asks each respondent’s opinion regarding the additional information they wish they had received when watching the clip:

- a) 25% of respondents believed a summary of the clip’s content would help;
- b) 17.3% considered a description of the characters would be useful;
- c) 35.6% of respondents reckoned it would be interesting to have information about other sounds rather than the main voice itself such as noises, background voices;
- d) 5.8% declared they would have liked some other element, besides the ones offered in this question;
- e) finally, respondents were asked whether they thought they did not need any of the previously mentioned options, which resulted in 16.3% of the total.

The results obtained by calculating the percentage of DHH participants in each answer are the following: of all the answers for the ‘content’s summary’ option, 55.5% were DHH vs. 44.5% hearers; of all the answers for the ‘characters’ description’ option, 38.4% DHH vs. 61.6% hearers; of all the answers for the ‘sounds, noises or voices’ option, 48.6% DHH vs. 51.4% hearers; of all the answers for the ‘something else’ option, 16.6% DHH vs. 83.4% hearers; of all the answers for the ‘nothing’ option, 35.2% DHH vs. 64.8% hearers.

Once again, the data retrieved in Q5 looks quite similar to the results retrieved in Videos 1 (page 72) and 2 (page 76) with regards to the majority of hearers per answer. Indeed, the hearers’ share expressed a stronger need for additional information with regards to Video 3 in comparison to the DHH share, who presented a slight majority of votes only in the option ‘content’s summary’.

Table 15.

Additional information in Video 3

	Content’s summary	Characters’ description	Sounds, noises or voices	Something else	Nothing
All Participants	25%	17.3%	35.6%	5.8%	16.3%
DHH	55.5%	38.4%	48.6%	16.6%	35.2%
Hearers	44.5%	61.6%	51.4%	83.4%	64.8%

Video 4

Video 4 is also taken from the type of audiovisuals of short movies, it lasts 1:34 minutes and it addresses the importance of bullying at school and the need to stop it.

This clip, called ‘*Campaña 'Atrapados': Unidos para acabar contra el bullying*’ (‘Trapped’ Campaign: Together against bullying), was produced by Sonae Sierra and by the Spanish Association for the Prevention of Bullying at School (AEPAE) for the

‘*Atrapados*’ campaign of 2017 in search of awareness and sensitization for the fight against bullying, an audiovisual piece that subjectively transports the viewer to the day- to-day life in which the victims of this scourge are involved. In this video, the scene is filmed from the point of view of a teenage girl, who wakes up in the morning and gets ready to go to school. While she is walking toward her classroom, some peers mistreat her and bully her by pushing her around or by taking pictures of her panties while she is walking down the stairs. Throughout the clip, nobody helps the girl at the end of which the girl is seen texting her mother of everything being ok at school. In the clip no character is directly addressing the camera.

Q1 addresses the respondents' personal opinion regarding the complexity of the clip on a scale of 1 to 5, where 1 stands for 'very easy' and 5 stands for 'very difficult'. 38.4% considered this clip to be 'very easy', 25% thought it was 'somewhat easy', 13.5% affirmed that the clip was 'not easy but not difficult either', 2.9% declared the clip to be 'somewhat difficult' and the remaining 20.2% said it was 'very difficult'.

The results obtained by calculating the percentage of DHH participants in each answer are the following: of the 20.2% of all participants who selected the 'very difficult' option, 52.3% were DHH vs. 47.7% hearers; of the 2.9% of the 'somewhat difficult' option, 66.6% DHH vs. 33.4% hearers; of the 13.5% of the 'not easy but not difficult either' option, 42.8% DHH vs. 57.2% hearers; of the 25% of the 'somewhat easy' option, 26.9% DHH vs. 73.1% hearers; of the 38.4% of the 'very easy' option, 37.5% DHH vs. 62.5% hearers.

As shown in Table 16 below, the results highlight the difficulty felt by the majority of DHH respondents, who found Video 4 mostly 'somewhat difficult' or 'very difficult'. The reason for this may be due to the fact that the clip is filmed from the main character's point of view, without showing the girl's face. Indeed, here no character is talking directly to the camera, which might have felt DHH respondents to have a more limited perception of the context.

Table 16.

Difficulty of the clip Video 4

	1=Very easy	2=Somewhat easy	3=Not easy but not difficult	4=Somewhat difficult	5=Very difficult
All Participants	38.4%	25%	13.5%	2.9%	20.2%
DHH	37.5%	26.9%	42.8%	66.6%	52.3%
Hearers	62.5%	73.1%	57.2%	33.4%	47.7%

Q2 asks about the comprehension of Video 4. Three options are presented to the respondents: a correct answer (the clip is about the urge to stop bullying at school), a distractor (it is about bullying at school being an overstatement) and a 'not sure' option. 79.8% answered correctly, 16.3% affirmed not to be sure about the clip's true meaning, while 3.9% answered incorrectly.

The results obtained by calculating the percentage of DHH participants in each answer are the following: 38.5% of the correct answers were DHH participants and 61.5% were hearers; 50% of the incorrect answers were DHH participants and 50% were hearers; 41.1% of the 'not sure' option were DHH participants and 58.9% were hearers.

From the data collected in Q2 of Video 4 it is possible to affirm that the majority of participants correctly understood the meaning of the clip, which was found by the greater number of volunteers to be ‘very easy’ in Q1 (page 81).

Table 17.

Meaning of Video 4

	Correct answers	Incorrect answers	‘Not sure’ option
All Participants	79.8%	3.9%	16.3%
DHH	38.5%	50%	41.1%
Hearers	61.5%	50%	58.9%

Q3 inquiries about the respondents’ opinion on the need to add subtitles to Video 4 or not. 51% thought the clip does not need subtitles, 42.3% considered that the clip needs subtitles, and 6.7% were not sure but considered they would have a better understanding of the clip with the help of subtitles.

The results obtained by calculating the percentage of DHH participants in each answer are the following: for option 1 (yes), 59% were DHH and 41% were hearers; for option 2 (no), 26.4% DHH vs. 73.6% hearers; for option 3 (not sure), 28.5% DHH vs. 71.5% hearers.

Although Video 4 was not considered particularly difficult by the respondents—as shown in Table 16—only 51% of all volunteers affirmed that the video did not require subtitles, whereas almost all the remaining participants would have appreciated the subtitling service. These data suggest that, no matter how simple the multimedia content, subtitles are quite welcome.

Table 18.

Subtitles in Video 4

	Yes	No	Not sure, but maybe better with subtitles
All Participants	42.3%	51%	6.7%
DHH	59%	26.4%	28.5%
Hearers	41%	73.6%	71.5%

Q4 asks for each respondent’s opinion on the need to add SL interpretation to Video 4 or not. As for the subtitles, 55.8% thought the clip does not need SL interpretation, 39.4% considered they would have had a better understanding of the video with the help of SL

interpretation and the remaining 4.8% were not sure but considered they would have a better understanding of the clip with the help of SL interpretation.

The results obtained by calculating the percentage of DHH participants in each answer are the following: for option 1 (yes), 51.2% were DHH vs. 48.8% hearers; for option 2 (no), 34.4% DHH vs. 65.6% hearers; for option 3 (not sure), 20% DHH vs. 80% hearers.

Although a slight majority of participants declared that Video 3 did not need sign language interpretation, it is important to note that Video 4 is the first clip in which the majority of DHH participants wished to have had the possibility to watch the clip with sign language interpretation, while in the previous clips this was not the case.

Table 19.

SL interpretation in Video 4

	Yes	No	Not sure, but maybe better with SL interpretation
All Participants	39.4%	55.8%	4.8%
DHH	51.2%	34.4%	20%
Hearers	48.8%	65.6%	80%

Q5 asks each respondent's opinion regarding the additional information they wish they had received when watching the clip:

- a) 16.3% of respondents affirmed that a summary of the clip's content would help;
- b) 5.8% thought a description of the characters would be useful;
- c) 51.9% of respondents considered that it would be interesting to have information about other sounds rather than the main voice itself such as noises, background voices;
- d) 1% affirmed they would have liked some other element, besides the ones offered in this question;
- e) finally, respondents were asked whether they thought they did not need any of the previous mentioned options, which resulted in 25% of the total.

From what might be inferred here, most of DHH respondents did not think additional information was required in Video 4.

The results obtained by calculating the percentage of DHH participants in each answer are the following: of all the answers for the 'content's summary' option, 64.7% were DHH vs. 35.3% hearers; of all the answers for the 'characters' description' option, 50% DHH vs. 50% hearers; of all the answers for the 'sounds, noises or voices' option, 35.1% DHH vs.

64.9% hearers; of all the answers for the ‘something else’ option, 0% DHH vs. 100% hearers; of all the answers for the ‘nothing’ option, 26.9% DHH vs. 73.1% hearers.

In the previous clips, the DHH respondents showed similar interest for the options ‘sound, noises or voices’, ‘characters’ description’ and ‘content’s summary’, while here the majority of DHH participants showed a clear need for the content’s summary. This may be due to the fact that Video 4 was considered to be quite difficult by the majority of DHH respondents and that is why they wished they had received more information regarding the clip’s content before watching it.

Table 20.

Additional information in Video 4

	Content’s summary	Character’s description	Sounds, noises or voices	Something else	Nothing
All Participants	16.3%	5.8%	51.9%	1%	25%
DHH	64.7%	50%	35.1%	0%	26.9%
Hearers	35.3%	50%	64.9%	100%	73.1%

Video 5

Video 5 is a scene taken from a comedy drama of Spanish production called *Señor, dame paciencia* (“Lord, give me patience”), written and directed by Álvaro Díaz Lorenzo in 2017. In the clip, seven people, four men and three women, are reunited at the pool of a mansion. It is night time and one of the four men is standing and talking to the rest of the group, looking for someone who could share the bedroom with him for the night, which would solve the problem of insufficient number of rooms in the house. The clip lasts 1:10 minutes and sometimes the characters are directly addressing the camera.

Q1 addresses the respondents’ personal opinion regarding the complexity of the clip on a scale of 1 to 5, where 1 stands for ‘very easy’ and 5 stands for ‘very difficult’. 50.9% found this clip to be ‘very difficult’, 21.2% thought it was ‘somewhat difficult’, 20.2% affirmed it was ‘not easy but not difficult either’, 5.8% declared it ‘somewhat easy’ and the remaining 1.9% said it was ‘very easy’.

The results obtained by calculating the percentage of DHH participants in each answer are the following: of the 50.9% of all participants who selected the ‘very difficult’ option,

47.1% were DHH vs. 52.9% hearers; of the 21.2% of the ‘somewhat difficult’ option, 27.2% DHH vs. 72.8% hearers; of the 20.2% of the ‘not easy but not difficult either’ option, 28.5% DHH vs. 71.5% hearers; of the 5.8% of the ‘somewhat easy’ option, 33.3% DHH vs. 66.7% hearers; of the 1.9% of the ‘very easy’ option, 100% DHH vs. 0% hearers.

From the data retrieved in Q1 of Video 5 it is possible to affirm that Video 5 was considered to be ‘very difficult’ by the majority of participants, with a small difference in percentage results between the DHH and the hearers’ shares. Overall, Video 5 was considered to be either ‘not easy, but not difficult either’, ‘somewhat difficult’ or ‘very difficult’, as these are the options that received the highest percentage of votes.

Table 21.

Difficulty of the clip Video 5

	1=Very easy	2=Somewhat easy	3=Not easy but not difficult	4=Somewhat difficult	5=Very difficult
All Participants	1.9%	5.8%	20.2%	21.2%	50.9%
DHH	100%	33.3%	28.5%	27.2%	47.1%
Hearers	0%	66.7%	71.5%	72.8%	52.9%

Q2 asks about the comprehension of Video 5. Three options are presented to the respondents: a correct answer (the clip is about a man looking for a volunteer to share the bedroom with him, thus solving the problem of insufficient amount of rooms), a distractor (it is about a man looking for someone guilty of committing a crime) and a ‘not sure’ option. This time, 54.8% declared not to be sure about the clip’s meaning, however a large share of participants (34.6%) answered correctly, while only 10.6% answered incorrectly.

These are the results obtained by calculating the percentage of DHH participants in each answer: 36.1% of the correct answers were DHH participants and 63.9% were hearers; 54.5% of the incorrect answers were DHH participants and 45.5% were hearers; 38.5% of the ‘not sure’ option were DHH participants and 61.5% were hearers.

In line with the results obtained in Q1 of Video 5, the majority of participants found the clip to be quite challenging, as most respondents, of which the majority were hearers, were not sure about the meaning of the clip.

Table 22.

Meaning of Video 5

	Correct answers	Incorrect answers	'Not sure' option
All Participants	34.6%	10.6%	54.8%
DHH	36.1%	54.5%	38.5%
Hearers	63.9%	45.5%	61.5%

Q3 inquiries about the respondents' opinion on the need to add subtitles to Video 5 or not. Because this clip was considered so difficult to comprehend, 92.3% considered they would have had a better understanding of the video with the help of subtitles, while only 1% thought the clip does not need subtitles and 6.7% were not sure but considered they would have a better understanding of the clip with the help of subtitles.

The results obtained by calculating the percentage of DHH participants in each answer are the following: for option 1 (yes), 42.7% were DHH and 57.3% were hearers; for option 2 (no), 0% DHH vs. 100% hearers; for option 3 (not sure), 14.2% DHH vs.

85.8% hearers.

The data collected in Q3 of Video 5 confirm the difficulty felt by the majority of respondents when watching this clip, as it is possible to see by the great majority of votes given to the option 'yes' in Table 23. What is more, the percentage results show little difference between the DHH and the hearers' shares with regards to the need for subtitles in Video 5.

Table 23.

Subtitles in Video 5

	Yes	No	Not sure, but maybe better with subtitles
All Participants	92.3%	1%	6.7%
DHH	42.7%	0%	14.2%
Hearers	57.3%	100%	85.8%

Q4 asks for each respondents' opinion on the need to add SL interpretation to Video 5 or not. Again, because due to the clip's difficulty, 67.3% considered they would have had a better understanding of the video with the help of SL interpretation, while 22.1% thought the clip does not need subtitles and the remaining 10.6% were not sure but considered they would have a better understanding of the clip with the help of SL interpretation.

The results obtained by calculating the percentage of DHH participants in each answer are the following: for option 1 (yes), 40% were DHH and 60% were hearers; for option 2 (no), 34.7% DHH vs. 65.3% hearers; for option 3 (not sure), 27.2% DHH vs. 72.8% hearers.

With regards to the need for sign language interpretation, the majority of respondents affirmed that Video 5 would have been easier to comprehend with the aid of SL interpretation. What is surprising is that the greater number of participants who votes ‘yes’ were hearers, as in happened in Videos 1 (page 71), 2 (page 75) and 3 (page 79).

Table 24.

SL interpretation in Video 5

	Yes	No	Not sure, but maybe better with SL interpretation
All Participants	67.3%	22.1%	10.6%
DHH	40%	34.7%	27.2%
Hearers	60%	65.3%	72.8%

Q5 asks for each respondent’s opinion regarding the additional information they wish they had received when watching the clip:

- a) 32.7% of respondents considered a summary of the clip’s content would help;
- b) 12.5% thought a description of the characters would be useful;
- c) 35.6% of respondents reckoned it would be interesting to have information about other sounds rather than the main voice itself such as noises, background voices;
- d) 3.8% affirmed they would have liked some other element, besides the ones offered in this question;
- e) finally, respondents were asked whether they thought they did not need any of the previously mentioned options, which resulted in 15.4% of the total.

The results obtained by calculating the percentage of DHH participants in each answer are the following: of all the answers for the ‘content’s summary’ option, 26.4% were DHH and 73.6% were hearers; of all the answers for the ‘characters’ description’ option, 53.8% DHH vs. 46.2% hearers; of all the answers for the ‘sounds, noises or voices’ option, 51.3% DHH vs. 48.7% hearers; of all the answers for the ‘something else’ option, 0% DHH vs. 100% hearers; of all the answers for the ‘nothing’ option, 43.7% DHH vs. 56.3% hearers.

The results highlight a greater interest of the DHH respondents in the ‘characters’ description’ compared to the previous videos. The majority of DHH participants wished to have received more information about the main character of the clip, who is also the only person talking during the video. This may be due to the fact that a deeper knowledge

of the main character would have helped the DHH respondents to obtain a clearer idea regarding the context of the scene.

Table 25.

Additional information in Video 5

	Content's summary	Characters' description	Sounds, noises or voices	Something else	Nothing
All Participants	32.7%	12.5%	35.6%	3.8%	15.4%
DHH	26.4%	53.8%	51.3%	0%	43.7%
Hearers	73.6%	46.2%	48.7%	100%	56.3%

Video 6

Video 6 is the second movie clip presented in the survey and it lasts 1:44 minutes. The video comes from a drama movie called *Nuestras madres* (“Our mothers”), written and produced by César Díaz in 2019. Based in Guatemala of 2013, the movie is about Ernesto, a young anthropologist with the Forensic Foundation, who identifies people who have disappeared during the civil war of those times. One day, through the story of an old woman, Ernesto believes he has found a clue that will allow him to find his father, a guerrilla who disappeared during the war. In the clip, the characters talk directly to the camera at times.

Q1 addresses the respondents’ personal opinion regarding the complexity of the clip on a scale of 1 to 5, where 1 stands for ‘very easy’ and 5 stands for ‘very difficult’. 42.3% found the clip to be ‘very difficult’, 30.8% declared it ‘somewhat difficult’, 20.2% affirmed it was ‘not easy but not difficult either’, 4.8% said it was ‘somewhat easy’ and the remaining 1.9% considered it to be ‘very easy’.

The results obtained by calculating the percentage of DHH participants in each answer are the following: of the 42.3% of all participants who selected the ‘very difficult’ option, 47.7% DHH vs. 52.3% hearers; of the 30.8% of the ‘somewhat difficult’ option, 25% DHH vs. 75% hearers; of the 20.2% of the ‘not easy but not difficult either’ option, 33.3% DHH vs. 66.7% hearers; of the 4.8% of the ‘somewhat easy’ option, 60% DHH vs. 40% hearers; of the 1.9% of the ‘very easy’ option, 50% DHH vs. 50% hearers.

These results show a great difficulty felt by both the hearers and the Deaf Community. The highest percentage results yielded belong to the two options ‘somewhat difficult’ and ‘very difficult’. Besides, the option ‘very difficult’ presents similar results among the two groups of the audience—i.e., the hearers and the DHH participants.

Table 26.

Difficulty of the clip Video 6

	1=Very easy	2=Somewhat easy	3=Not easy but not difficult	4=Somewhat difficult	5=Very difficult
All Participants	1.9%	4.8%	20.2%	30.8%	42.3%
DHH	50%	60%	33.3%	25%	47.7%
Hearers	50%	40%	66.7%	75%	52.3%

Q2 asks about the comprehension of Video 6. Three options are presented to the respondents: a correct answer (the clip is about a young man looking for a relative), a distractor (it is about a young man trying to solve a crime) and a ‘not sure’ option. 46.1% reckoned not to be sure regarding the clip’s meaning, 32.7% answered correctly, while the remaining 21.2% answered incorrectly.

These are the results obtained by calculating the percentage of DHH participants in each answer: 52.9% of the correct answers were DHH participants and 47.1% were hearers; 45.4% of the incorrect answers were DHH participants and 54.6% were hearers; 39.5% of the ‘not sure’ option were DHH participants and 60.5% were hearers.

The data retrieved in this question show similarities in the ‘correct’ and the ‘incorrect’ option between hearers and DHH participants, while the ‘not sure’ option presented a greater difference between the two groups.

Table 27.

Meaning of Video 6

	Correct answers	Incorrect answers	‘Not sure’ option
All Participants	32.7%	21.2%	46.1%
DHH	52.9%	45.4%	39.5%
Hearers	47.1%	54.6%	60.5%

Q3 inquiries about the respondents’ opinion on the need to add subtitles to Video 6 or not. 94.2% considered they would have had a better understanding of the video with the help

of subtitles, 1.9% thought the clip does not need subtitles and the remaining 3.8% were not sure but considered they would have a better understanding of the clip with the help of subtitles.

The results obtained by calculating the percentage of DHH participants in each answer are the following: for option 1 (yes), 43.8% were DHH vs. 56.2% hearers; for option 2 (no), 0% DHH vs. 100% hearers; for option 3 (not sure), 0% DHH vs. 100% hearers.

In Video 6 the need for adding subtitles is shared once again by the majority of respondents, regardless of their hearing status. The clip was considered to be quite difficult by all participants and that may be the reason why most of the respondents had the same opinion regarding the need for subtitles.

The percentages displayed in Table 28 correspond to the percentage results obtained on Google Drive Questionnaires, however the total sum of the shares adds up to 99.9% instead of 100%. The percentages have been reported in the table as they are, without being modified, since it was thought that 0.01% would not impact on the retrieved results.

Table 28.

Subtitles in Video 6

	Yes	No	Not sure, but maybe better with subtitles
All Participants	94.2%	1.9%	3.8%
DHH	43.8%	0%	0%
Hearers	56.2%	100%	100%

Q4 asks for each respondents' opinion on the need to add SL interpretation to Video 6 or not. 66.3% considered they would have had a better understanding of the video with the help of SL interpretation, 26% thought the clip does not need subtitles and the remaining 7.7% were not sure but considered they would have a better understanding of the clip with the help of SL interpretation.

The results obtained by calculating the percentage of DHH participants in each answer are the following: for option 1 (yes), 40.5% were DHH and 59.5% were hearers; for option 2 (no), 44.4% DHH vs. 55.6% hearers; for option 3 (not sure), 25% DHH vs. 75% hearers.

The majority of participants declared that Video 6 would have been better understood with the aid of sign language interpretation. What is surprising is that the hearers' share is once again the one with the highest number of percentage votes in the option 'yes', as in Video 1 (page 71), Video 2 (75), Video 3 (page 79) and Video 5 (87).

Table 29.

SL interpretation in Video 6

	Yes	No	Not sure, but maybe better with SL interpretation
All Participants	66.3%	26%	7.7%
DHH	40.5%	44.4%	25%
Hearers	59.5%	55.6%	75%

Q5 asks each respondent's opinion regarding the additional information they wish they had received when watching the clip:

- a) 30.8% of respondents believed a summary of the clip's content would help;
- b) 10.6% thought a description of the characters would be useful;
- c) 43.2% of respondents reckoned it would be interesting to have this information about other sounds rather than the main voice itself such as noises, background voices;
- d) 4.8% affirmed they would have liked some other element, besides the ones offered in this question;
- e) finally, respondents were asked whether they thought they did not need any of the previously mentioned options, which resulted in 10.6% of the total.

The results obtained by calculating the percentage of DHH participants in each answer are the following: of all the answers for the 'content's summary' option, 37.5% were DHH and 62.5% were hearers; of all the answers for the 'characters' description' option, 27.2% DHH vs. 72.8% hearers; of all the answers for the 'sounds, noises or voices' option, 42.2% DHH vs. 57.8% hearers; of all the answers for the 'something else' option, 20% DHH vs. 80% hearers; of all the answers for the 'nothing' option, 63.6% DHH vs. 36.4% hearers.

The respondents showed great interest in the options 'sounds, noises or voices' and 'contents' summary', which may be due to the comprehension issues both hearers and DHH participants felt in Video 6. It is noteworthy that in these two options the hearers' share presents much higher percentage results compared to the Deaf Community.

Table 30.

Additional information in Video 6

	Content's summary	Characters' description	Sounds, noises or voices	Something else	Nothing
All Participants	30.8%	10.6%	43.2%	4.8%	10.6%
DHH	37.5%	27.2%	42.2%	20%	63.6%
Hearers	62.5%	72.8%	57.8%	80%	36.4%

e) Special needs

In the third and last section of the survey, respondents are asked to reply to eight final questions regarding the special needs they might have when watching the Spanish Digital Television. Here the general results obtained from the study are presented and discussed.

Q1 addresses the overall readability of subtitles offered by the Spanish Digital Television, without making a distinction between pre-recorded and live subtitles.

The various Spanish TV channels offer different SDH services depending on their private regulations, which means that every Spanish TV channel presents SDH subtitles to the audience which may differ in their size and/or colour, in their position on screen, in the amount of time they are displayed on screen and so on. These features affect the readability of SDH on the audience, who may find subtitles to be too fast, too slow, too big, too small and so on. It is important to note that no distinction between live subtitles and pre-recorded subtitles was made in the survey regarding this question, which means that the answers retrieved from this question refer to the general readability of the subtitling services offered by the Spanish Digital Television.

Table 31.

Readability of subtitles in Spain

	High readability	Poor readability	It depends
All Participants	43.3%	10.6%	46.1%
DHH	51.1%	45.4%	27%
Hearers	48.9%	54.6%	73%

Q2 asks respondents to evaluate the overall quality of subtitles offered by the Spanish Digital Television on a Likert scale 1 to 5, where 1 stands for 'very poor' and 5 stands for 'excellent'. As shown on Table 32 below, only 3.8% considered them 'excellent', while 26% thought that they were 'somewhat good', 50% of participants considered them neither excellent nor poor, 17.3% thought that they were 'somewhat poor' and the remaining 2.9% considered them 'very poor'.

Once again, it is essential to highlight that no distinction between live subtitles and pre-recorded subtitles was made in this survey regarding this question, therefore the answers here retrieved refer to the overall quality of the subtitling services offered by the Spanish Digital Television.

Table 32.

Quality of subtitles in Spain

	Very poor	Somewhat poor	Not excellent, but not poor	Somewhat good	Excellent
All Participants	2.9%	17.3%	50%	26%	3.8%
DHH	66.6%	55.5%	26.9%	51.8%	75%
Hearers	33.4%	44.5%	73.1%	48.2%	25%

As for the respondents' choices when deciding which program to watch on the Spanish Digital Television, 43.2% (most of them DHH) replied that they do indeed choose which program to watch basing themselves on the presence or absence of subtitles; 38.5% (most of them hearers) do not choose what to watch depending on this feature and the remaining 18.3% affirmed that it depends. It is not surprising that most DHH respondents affirmed to choose which program to watch depending on the presence of subtitles, while the majority of hearers does not have this need.

Table 33.

TV shows chosen depending on the presence of subtitles

	Yes	No	It depends
All Participants	43.2%	38.5%	18.3%
DHH	75.5%	7.5%	26.3%
Hearers	24.5%	92.5%	73.7%

Table 34 presents the results obtained from the question ‘Which TV programs do you usually watch?’. What can be inferred from the data retrieved in this question is that 83.7% prefer to watch movies or TV series, followed by news (59.6%), documentaries (39.4%), contest programs (26.9%), sport (22.1%) and only 10.6% of respondents indicated that they prefer to watch other TV shows.

The percentages displayed in Table 34 correspond to the percentage results obtained on Google Drive Questionnaires, however the total sum of the shares adds up to more than 100%. That is due to the fact that in this question the participants could choose more than one television program as their answer, which means that each answer should be taken into account individually.

Table 34.

TV shows preferences							
	News	Movies or series	Interviews or debates	Contest programs	Sport	Documentaries	Other
All Participants	59.6%	83.7%	22.1%	26.9%	22.1%	39.4%	10.6%
DHH	43.3%	41.3%	52.1%	67.8%	60.8%	56%	63.6%
Hearers	56.7%	58.7%	47.9%	32.1%	39.1%	44%	36.4%

Concerning TV channels, respondents showed that the most popular ones are Antena 3 and RTVE with a percentage of 35.5% and 34.6%, respectively, followed by La Sexta (33.7%), Telecinco (29.8%), TV3 (27.3%), DKiss (9.6%), other channels (51%).

As it is possible to notice, the percentage results obtained from this question add up to more than 100%, and that is due to the fact that also here the participants could choose more than one answer. The results retrieved from this question should also be evaluated individually.

Q6 addresses possible features to change in the subtitles offered by the Spanish Digital Television. As shown in Table 35 below, the aspects most respondents would change are: the size and colour of subtitles (57.7%), the subtitles’ speed (54.8%) and the subtitles’ lexicon (48.1%).

With regards to the option ‘size and colour’, the hearers’ share represented the 60% of all answers, while the DHH share were only the 40%, which seems quite interesting since the DHH share are the main users of SDH services. What is more, the hearers’ share was also the majority of respondents who voted ‘the subtitles’ speed’, even though it was assumed

that the DHH share would have found this option more interesting than the hearers. Indeed, of the 54.8% of participants who votes ‘the subtitles’ speed’, only 28% were DHH respondents, while the great majority consisted of hearers. Finally, with regards to the third most voted subtitling feature that the (selected) Spanish Audience would have liked to see improved in the future, ‘the subtitles’ lexicon’ was voted almost equally by DHH and hearers both.

The results obtained from this question add up to a total sum higher than 100%, because the participants in this survey could choose more than one feature as their answer. Once again, the data retrieved here should be considered individually.

The respondents who selected the option ‘other’ were given the possibility to further explain their personal opinion regarding this matter in question 6a. The answers obtained are explained in Annex I (page 210).

Table 35.

Possible features to be changed in subtitling service offered in Spain

	Speed	Lexicon	Extra info	Foreign language	Size/ colour	Position	Other	Nothing
All Participants	54.8%	48.1%	29.8%	31.7%	57.7%	33.7%	9.6%	4.8%
DHH	28%	48%	54.8%	45.4%	40%	45.7%	60%	40%
Hearers	71.9%	52%	45.1%	54.5%	60%	54.2%	40%	60%

Concerning the respondents’ preferences regarding the identification of characters during a movie or a TV series, it is worth mentioning that 52.9% prefer colours although there were other options: tags (17.3%), dash (18.3%), only 9.6% of respondents prefer characters not to be identified and 1.9% answered ‘other’.

Both DHH and hearers found ‘colours’ to be the most appropriate way to identify characters on screen, which may be due to the fact that the Spanish Audience is already used to this identification technique.

Table 36.

Identification of characters

	Colours	Tags	Dash	Without ID	Other
All Participants	52.9%	17.3%	18.3%	9.6%	1.9%
DHH	50.9%	16.6%	31.5%	20%	100%
Hearers	49.1%	83.4%	68.5%	80%	0%

The respondents who select the option ‘other’ are given the possibility to further explain their personal opinion regarding this matter in question 7a. The answers obtained in this question are explained in the Annex 1 (page 210).

The last question consists in an inquiry on whether respondents would use a dedicated TV page called ‘Vocabulary’, if that would exist, with the lexicon, metaphors and sayings used in each media production offered by the Spanish Digital Television. It seems that respondents were divided so far as 52.9% of all participants stated that they would definitely use the TV ‘Vocabulary page’, and the remaining 47.1% affirmed that they would not use it.

Table 37 below shows the percentage results retrieved in Q1 of all six videos presented in the survey. The answers obtained in the evaluation of the clips’ difficulty are here displayed, with both the DHH and the hearers’ share for every answer. By taking a look at this table, it is possible to determine which clip was considered the easiest, or the hardest, to understand without the help of subtitles or sound. Moreover, here it is possible to evaluate and compare the DHH and the hearers shares in regards to the difficulty scale of the six videos.

The results of Q1 suggest that Videos 2, 5 and 6 were considered the trickiest to truly comprehend without the aid of subtitles or sound, whereas Videos 3 and 4 appeared to be more straightforward than the others. Furthermore, it seems relevant to point out that the most difficult videos were also the ones with most conversational content, and that these videos were considered the most challenging ones almost equally by both hearers and the DHH.

Table 37.

Difficulty of the Videos 1,2,3,4,5,6

	1=Very easy	2=Somewhat easy	3=Not easy but not difficult	4=Somewhat difficult	5=Very difficult
Video 1	1.9%	10.6%	26%	25%	36.5%
DHH	50%	36.3%	22.2%	34.6%	57.8%
Hearers	50%	63.7%	77.8%	65.4%	42.2%

Video 2	2.9%	1.9%	4.8%	21.2%	69.2%
DHH	33.3%	0%	60%	40.9%	40.2%
Hearers	66.7%	100%	40%	59.1%	59.8%
Video 3	45.2%	26.9%	18.3%	7.7%	1.9%
DHH	100%	25%	26.3%	32.1%	48.9%
Hearers	0%	75%	73.7%	67.9%	51.1%
Video 4	38.4%	25%	13.5%	2.9%	20.2%
DHH	37.5%	26.9%	42.8%	66.6%	52.3%
Hearers	62.5%	73.1%	57.2%	33.4%	47.7%
Video 5	1.9%	5.8%	20.2%	21.2%	50.9%
DHH	100%	33.3%	28.5%	27.2%	47.1%
Hearers	0%	66.7%	71.5%	72.8%	52.9%
Video 6	1.9%	4.8%	20.2%	30.8%	42.3%
DHH	50%	60%	33.3%	25%	47.7%
Hearers	50%	40%	66.7%	75%	52.3%

Table 38 shows the percentage results obtained in Q2 of all six videos presented in the survey. Indeed, the answers obtained in the understanding of the clips' meaning are presented here, with both the DHH and the hearers' share for every answer. Videos 1 and 4 collected the highest percentage rate of correct answers, whereas Video 3 retrieved the lowest percentage rate among all six videos.

What is interesting to point out is that Video 3 was considered to be one of the two simplest clips to understand without the help of subtitles or sounds, along with Video 4. However, while Video 4 reached one of the highest percentage of correct answers, the content of Video 3 was not comprehended by the majority of the participants.

Table 38.

Meaning of Videos 1,2,3,4,5,6

	Correct answers	Wrong answers	'Not sure' option
Video 1	47.1%	12.5%	40.4%
DHH	34.6%	69.2%	38%
Hearers	65.4%	30.8%	62%
Video 2	11.5%	6.8%	81.7%
DHH	50%	42.8%	34.1%
Hearers	50%	57.2%	65.9%
Video 3	6.7%	53.8%	39.4%
DHH	28.2%	39.2%	43.9%
Hearers	71.8%	60.8%	56.1%
Video 4	79.8%	3.9%	16.3%
DHH	38.5%	50%	41.1%
Hearers	61.5%	50%	58.9%

Video 5	34.6%	10.6%	54.8%
DHH	36.1%	54.5%	38.5%
Hearers	63.9%	45.5%	61.5%
Video 6	32.7%	21.2%	46.1%
DHH	52.9%	45.4%	39.5%
Hearers	47.1%	54.6%	60.5%

In the next chart, the percentage results yielded in Q3 of all six videos are presented. Table 39 shows the audience's opinion regarding the need (or not) for subtitles in each video, with the possibility to compare the retrieved data by looking at the DHH and the hearers shares of each clip. From the results obtained in this question it is possible to affirm that the great majority of participants wished to have watched most videos, all videos besides Video 4, with the additional help provided by subtitles. What is more, the percentage share of hearers and DHH is almost the same in each affirmative answer, which suggests that the wish for subtitles was perceived equally by both parties.

Table 39.

Subtitles' need in Videos 1, 2, 3, 4, 5, 6

	Yes	No	Not sure, but maybe better with subtitles
Video 1	80.8%	2.9%	16.3%
DHH	45.2%	0%	17.6%
Hearers	54.8%	100%	82.4%
Video 2	94.2%	1.9%	3.8%
DHH	41.8%	0%	25%
Hearers	58.2%	100%	75%
Video 3	90.4%	1.9%	7.7%
DHH	41.4%	0%	12.5%
Hearers	58.6%	100%	87.5%
Video 4	42.3%	51%	6.7%
DHH	59%	26.4%	28.5%
Hearers	41%	73.6%	71.5%
Video 5	92.3%	1%	6.7%
DHH	42.7%	0%	14.2%
Hearers	57.3%	100%	85.8%
Video 6	94.2%	1.9%	3.8%
DHH	43.8%	0%	0%
Hearers	56.2%	100%	100%

In Table 40, the percentage results retrieved in Q4 of all six videos are presented. The audience's opinion regarding the need (or not) for SL interpretation in each video is displayed, and the retrieved data can be compared by looking at the DHH and the hearers

shares of each clip. They also show that the majority of respondents wished they had sign language interpretation when watching all six videos.

What is interesting is that the hearers are the ones presenting a slightly higher interest in having sign language interpretation in each video, in comparison to the percentage results of the DHH participants, which is puzzling because it is far more common to speak sign language among DHH than among hearers.

Table 40.

SL interpretation's need in Videos 1, 2, 3, 4, 5, 6

	Yes	No	Not sure, but maybe better with SL interpretation
Video 1	59.6%	26.9%	13.5%
DHH	43.5%	39.2%	28.5%
Hearers	56.5%	60.8	71.5%
Video 2	72.1%	18.3%	9.6%
DHH	38.6%	47.3%	40%
Hearers	61.4%	52.7%	60%
Video 3	69.2%	21.2%	9.6%
DHH	36.1%	50%	40%
Hearers	63.9%	50%	60%
Video 4	39.4%	55.8%	4.8%
DHH	51.2%	34.4%	20%
Hearers	48.8%	65.6%	80%
Video 5	67.3%	22.1%	10.6%
DHH	40%	34.7%	27.2%
Hearers	60%	65.3%	72.8%
Video 6	66.3%	26%	7.7%
DHH	40.5%	44.4%	25%
Hearers	59.5%	55.6%	75%

In the next chart, the percentage results yielded in Q5 of all six videos are presented. Table 41 shows the respondents' opinion regarding the additional information they wished they would have received when watching the six clips presented in the survey. As for the other charts, the DHH shares are displayed along with the hearers', in order to further analyse the data and to understand the needs of each of these two subgroups.

Among all five options, 'sounds, noises or voices' was the most requested one, followed by 'content's summary' and 'characters' description'. The options 'something else' and 'nothing' were the ones that retrieved the least percentage rates. With reference to 'sounds, noises and voices', the DHH and the hearers shares were quite similar in all six videos, whereas in all the other options, they can vary a lot.

Table 41.

Additional information in Videos 1, 2, 3, 4, 5, 6

	Content's summary	Characters' description	Sounds, noises or voices	Something else	Nothing
Video 1	24%	6.7%	54.8%	4.8%	9.6%
DHH	40%	42.8%	38.5%	0%	70%
Hearers	60%	57.2%	61.5%	100%	30%
Video 2	30.8%	11.5%	40.4%	6.7%	10.6%
DHH	34.3%	33.3%	45.2%	28.5%	54.5%
Hearers	65.7%	66.7%	54.8%	71.5%	45.5%
Video 3	25%	17.3%	35.6%	5.8%	16.3%
DHH	55.5%	38.4%	48.6%	16.6%	35.2%
Hearers	44.5%	61.6%	51.4%	83.4%	64.8%
Video 4	16.3%	5.8%	51.9%	1%	25%
DHH	64.7%	50%	35.1%	0%	26.9%
Hearers	35.3%	50%	64.9%	100%	73.1%
Video 5	32.7%	12.5%	35.6%	3.8%	15.4%
DHH	26.4%	53.8%	51.3%	0%	43.7%
Hearers	73.6%	46.2%	48.7%	100%	56.3%
Video 6	30.8%	10.6%	43.2%	4.8%	10.6%
DHH	37.5%	27.2%	42.2%	20%	63.6%
Hearers	62.5%	72.8%	57.8%	80%	36.4%

f) Discussion of Part I

As mentioned above (page 64), Part I consists of a survey-based reception study regarding the needs and wishes of the (selected) Spanish Audience with reference to the subtitling services currently offered on the Spanish Digital Television.

Opinions were obtained from members of the Spanish audience in general, because as Díaz-Cintas and Szarkowska (2020: 07) remind us “Deciding on a subtitle presentation rate that would satisfy most, if not all viewers, is clearly too utopian a goal, but we can get slightly closer to it by testing and garnering information provided by the audience themselves.” Furthermore, Matamala et al. (2018) add that “in the case of accessibility standardisation [...] end users should have a voice in the standardisation agencies”. Nevertheless, the choice of involving hearers and DHH people both does not change who SDH services should be written for: the Deaf Community. The reason why hearers were asked to take part in this study is due to the fact that the audience consists of a very heterogeneous group of people, who have different needs and who might be hearing

individuals with no impairments, or individuals with one, or more, impairment(s). What is more, as Romero-Fresco (2018: 189) well affirms, SDH has been proved to benefit not only the Deaf Community but also many other individuals as well. Consequently, although SDH must be written for the DHH, hearing people could contribute to the creation and the design of these subtitling services, since the professionals working in the field of AVTS usually are hearers. The aim of this cooperation is to ask the Deaf Community about their needs and wishes with regards to the SDH provided by the Spanish Digital Television and to consider the contribution that hearing people could provide with their own opinions on the matter.

The difficulty of each clip was evaluated by the participants themselves, who after each video, were asked to state how challenging the clip seemed to them on a scale from 1 to 5, where one corresponds to “very easy” and 5 to “very difficult”. The majority of the (selected) Spanish audience stated that the most challenging clips to watch without sound or subtitles were Videos 2 (advertising), 5 and 6 (featured films), which were also the clips with more dialogue among the six ones presented to the participants. Videos 3 and 4 (short movies) were considered the easiest to comprehend by the participants, as the characters did not speak as much as in the clips previously mentioned.

From these results it could be inferred that the (selected) Spanish audience struggled the most in the videos with more dialogue, while the clips with the least amount of dialogue appeared easier to understand. That could be due to the fact that respondents did not have proper access to the clips, as no sound or subtitles were provided to the participants. Indeed, the lack of sound or subtitles led to poor understanding of the clips, because to have access to something does not translate to owning it or to having the chance to use it. Usability and accessibility are not synonyms, as to be able to access something “means being able to use, interact with, and enjoy that good” (Greco, 2018: 208).

Although Videos 3 and 4 were considered the easiest to comprehend by the participants, the two clips do not share the same pattern. In the former we can see a family of three people discussing an important issue in front of the camera, while in the latter we cannot see any characters speaking at any time.

In Video 4 the camera is pointed to the feet of the main character, who is seen walking to school, while her schoolmates make fun of her and bully her. Even though the camera does not show the girl’s face, the meaning of the clip seemed quite obvious to the participants, who scored the highest numbers of correct answers in this video and in Video 1. Indeed, it seems clear that the girl is being bullied by her schoolmates, who are seeing taking pictures of the girl’s underwear while she is walking down the stairs and posting them on a social media right after. More examples of bullying are present in the clip. These results suggest that it might be possible to grasp the meaning of a multimedia production whether the characters’ faces are visible or not, and whether audiovisuals involve the presence of words or not, however a larger sample would be required in order to prove this.

It seems important to note that the fact that the characters’ faces are visible on screen does not ensure the correct understanding of an audiovisual production. Indeed, even though Video 3 was considered by the respondents as one of the easiest to comprehend, participants had the lowest number of correct answers in this clip. The reason behind this lies in the fact that, while Video 4 consists in an audiovisual production where the meaning is delivered mainly through the visual representation of what is happening in the clip, Video 3 relies mainly on the verbal component of the multimedia production. Once again,

the data confirm that the lack of subtitles and sound made the clips inaccessible to the participants, thus almost impossible to correctly comprehend.

Despite the fact that only two clips per type of audiovisual production were presented in this survey, participants seemed to have experienced greater frustration when they watched advertisements (Videos 1 and 2) and feature films (Videos 5 and 6). Short movies appeared to be easier to understand. Moreover, Videos 2, 5 and 6 were recognized as the hardest by a majority of hearing participants, rather than by DHH respondents, as one would expect. The results were then reflected in the presumed meaning of the clips, where respondents demonstrated that they correctly understood Video 4, which was considered one of the easiest to watch in comparison with Video 3.

DHH volunteers had greater difficulty understanding the meaning of clips than the hearers, proving hypothesis 1 (page 16) wrong: DHH cannot interpret and understand the plot of any audiovisual production—advertisement, short movie, feature film—without the use of subtitles. Hypothesis 1 was proved wrong in this first phase of the study, however given the limited number of clips presented to the participants, further research on this topic should be conducted in order to draw more accurate conclusions.

The need for subtitles could have been expected in the clips that were considered difficult by respondents, which were numbers 2, 5 and 6. As mentioned above (page 98), participants' opinions were only divided in Video 4. In the remaining five clips, a clear majority of participants felt subtitles were needed, even for the most understandable videos in their opinion.

Concerning the inclusion of sign language (SL), the results show that a vast majority of participants consider SL to be significant. Furthermore, even though only 6.7% of all participants declared to speak one, or both, sign language(s), the need for SL interpretation seemed to be felt slightly more by the hearers share than by the DHH, as one may have predicted. As previously mentioned (page 98), what is puzzling is that usually hearers do not speak as much sign language as the people in the Deaf Community, which means that some of the respondents who chose to answer 'yes' do not even speak SL. Therefore, it seems relevant to highlight the wish expressed by this part of the respondents' group who, even without speaking any sign language, affirmed that they would have benefitted from a SL interpretation in the clips, thus reinforcing the relevance of SL interpretation in multimedia productions. Such a service was recognized as necessary in all clips, without a distinction between the three fields.

The final issue in the analysis of the video-based survey's results was the additional information participants would appreciate in these clips. Participants affirmed that they wanted to discover whether sounds, noises or voices were present in the background of the clips. This need was stated to a greater or lesser degree in all clips, thus confirming hypothesis 4 (page 17). The second highly demanded additional information was a summary of the clips' content—which corroborates hypothesis number 2 (page 16) only partially, since the need for this additional information was felt mostly by hearing respondents in almost every clip—and in third position was a description of the characters. The lowest percentages were found for the remaining options 'something else' and 'nothing'. The hearers' share of this first survey might be expected to place the content summary in first position. However, the option with the highest percentage refers to audio (sounds, noises or voices in the background). This might be due to the fact that participants do not want to be helped to understand the clips, nor do they wish to receive information

that would otherwise hinder their enjoyment when they watch the videos. In other words, a possible reason for which a summary is considered less important than being aware of any sounds present in each scene could be that the audience is afraid of ruining their enjoyment of any multimedia production by discovering too much information in a summary, which would result in spoilers. Generally speaking, it might be effective to check the content/plot of a media production (TV show or movie) before watching it, but from the findings obtained it might be inferred that the content is not as important as one might think.

When asked about the overall readability of the SDH service offered to the Spanish audience—as no distinction in the survey was made between live subtitles and pre-recorded subtitles in order to get a general idea of the subtitling services offered on the Spanish Digital Television, given that not every channel provides the same types of subtitling services, or the same amount of programs with subtitles— participants appeared to be quite happy, given that 43.3% of all respondents stated that subtitles are highly readable, and only 10.6% think that subtitles are of poor readability. The results obtained for this question seemed to be almost the same for hearers and DHH participants. However, almost half of the respondents, 46.1%, considered that readability is not always the same: sometimes it is high and at other times poor, which leads to the conclusion that the (selected) Spanish audience considers Spanish SDH as mainly readable. Nonetheless, it is important to highlight that the resulting answer may be due to the fact that not all channels offer the same SDH service, and the quality of subtitles is not the same everywhere. The Spanish Digital Television channels provide different SDH services depending on their private regulations, and each Spanish TV channel provides its own SDH service. Subtitles may differ in size and/or colour, in their position on the screen, in the amount of time they are displayed and so on, according to each channel's criteria. The UNE 153010:2012 standard clearly states that “The typography used in the subtitling service should meet the criteria of maximum readability. NOTE: The selection of the most appropriate font depends on a large number of factors including screen size and resolution, lighting conditions, the distance between the viewer and the screen, etc.” The results show that both hearers and DHH participants share a similar opinion regarding the overall quality of Spanish SDH in general. However, it is important to keep in mind that the hearing population is not as used to the subtitling services available as the DHH share is, and that these results may be referring to prerecorded programs only, where subtitles usually adjust to the UNE standard. However, live programs (news, sports, etc.), which are subtitled in real time, show imperfect subtitles that sometimes are hard to understand.

To gain a more accurate idea of the personal needs of the audience, respondents were asked to think about their daily choices regarding the TV shows they prefer to watch on a daily basis. A total of 43.2% of all participants declared that they choose which TV programme to watch depending on whether the TV channel offers an SDH service or not. Note that 75.5% out of the 43.3% were DHH participants, and only 7.5% of the 38.5% who did not choose the TV channel on this basis were DHH. Needless to say, the choice for watching a specific TV channel only if it offers the SDH service seemed to concern mainly the DHH audience.

The TV shows more frequently watched by the majority of participants, regardless of their hearing impairment, are movies/TV series, followed by news and documentaries, which confirms the findings of the *Long questionnaire in Spain* by Arnáiz-Uzquiza (2015), and *Long questionnaire in the UK* (2015a), directed by Romero-Fresco.

With regards to the TV channels that the respondents watch most, they are: Antena 3, RTVE and La Sexta. Although the percentage of the subtitled programs offered by each of these three channels between December 2019 and February 2020 was not possible to retrieve, CESyA¹¹ states that in 2019 83.53% of the programs transmitted by the Spanish Digital Television provided subtitling services (2020).

When participants were asked about possible aspects of the Spanish SDH service that they would improve, the majority of them mentioned they would change the size and colour of subtitles, as well as their speed. A high percentage of participants would also change the subtitles' lexicon, which might suggest that some participants would like the lexicon to be simpler than the one already used. Respondents did not mention the reason why they wanted these elements to be modified or improved, they simply made a list of the subtitling characteristics that they wished would be better or different. Here, it is important to highlight the views of hearers and DHH participants: while DHH respondents considered the subtitles' lexicon should be improved, hearers found the subtitles' speed the most challenging aspect of SDH. A smaller percentage of participants would also change the subtitle's position. The format of Spanish SDH appeared to be inadequate for both parties. The participants who chose the option 'other' were then asked to explain why they selected this option and to express their personal opinion on the matter. The most common aspects they would improve are as follows: they would include more information about background sounds in all TV programs; they would make subtitles more accurate—i.e., they would like the subtitles to report exactly what the characters say on screen; and they would improve the choice of colors to identify the various characters on screen. The data retrieved by this question suggest that the guidelines provided by the Standard UNE 153010:2012 regarding the font size, the colours and the speed of subtitles could be further improved.

Concerning the respondents' preferences about the identification of characters during a media production, most of them prefer colors, the use of dash was the second most favourite option, while the use of tags came third. Both DHH and hearers found 'colours' the most appropriate way to identify characters on screen. The assignment of colours to each speaker is a common strategy in Spain, which may explain the respondents' preference for this type of character identification. As Pereira (2010: 89) affirms: "This is a strategy used by all Spanish television channels that provide subtitles for the deaf and the hard of hearing. Therefore, it constitutes a technical feature with which deaf viewers are extremely familiar".

Regarding the creation of a new accessible TV page called 'Vocabulary' for the Spanish audience, the opinions were divided: 52.9% of all participants stated that they would definitely use the TV 'Vocabulary page', while the remaining 47.1% affirmed that they would not use it. It seems that a slight majority of the people in the Spanish Audience would like to have access to a 'Vocabulary' page on their Digital Television, thus confirming in part hypothesis 3 (page 17). This page could be added to the Teletext on the Spanish Digital Television for anyone in the audience to access it via remote control and would include explanations regarding the meaning and use of metaphors that could be

¹¹ CESyA (Centro Español del Subtitulado y la Audiodescripción—Spanish Center for Subtitling and Audio Description).

difficult for them. Moreover, there could be a list of all the nouns present in each multimedia production with the corresponding explanation.

The data retrieved in Part I reveal the relevance of the subtitling service offered by the Spanish Digital Television, which allows a great share of the Spanish audience—mainly people from the Deaf Community—to properly access multimedia content. If a TV channel does not provide subtitles, or SDH, the majority of the DHH population is forced to change channels in order to access the content of that multimedia product. It is important to note that, both subtitles and SL interpretation, are highly valued by the majority of the entire Spanish population—hearers and DHH people—even though some individuals do not even know any sign language. This confirms the relevance of subtitling services and SL interpretation for the correct accessibility of all audiovisual productions.

With regards the effectiveness of the Standard UNE 153010:2012, SSDHIS19 showed that the majority of the (selected) Spanish audience seems to be pleased with the overall readability and with the general quality of subtitles provided by the Spanish digital television, although they would like all background sounds—noises, voices, sounds and music—to be rendered explicit on screen at all times. Moreover, participants would like the font size, the colour and the speed of subtitling services to be improved in the future. Finally, a slight majority of respondents declared to be interested in the creation of a new Teletext page, called ‘Vocabulary’, where explanations of words, expressions and metaphors could be available for each television program.

4.2 Part II

After conducting the survey Part I, it was thought that it would be a good idea to compare the subtitling services offered on three TV series by some well-known OTT platforms in Spain—i.e., Netflix, Amazon Prime Video and HBO—to highlight both the differences and the similarities among them. Through the comparative analysis of the subtitling services provided by these platforms, we were able to discover which kind of subtitling services were offered on Netflix, Amazon Prime Video and HBO, i.e., whether there is the possibility of using SDH, subtitles, or both. Furthermore, important information regarding the structure and the features of the subtitling services available was retrieved, which was compared to the results obtained in SSDHIS19.

Since online streaming platforms are attracting more and more viewers, thanks to the freedom they provide to their users, which is a reality that has also been greatly reinforced in Spain by the global emergency caused by the Coronavirus disease (COVID19) (Montaña Blasco et al., 2020: 163), it seemed relevant to see what kind of subtitling services are to be expected when enjoying some multimedia content on an OTT platform, as well as to highlight the design of captions/subtitles available on them with the goal of discovering whether their subtitling features could be used in the design the list of criteria that could be added to the Standard UNE 153010:2012 in the future. Without the comparative analysis of the subtitling services provided by the three OTT platforms Netflix, Amazon Prime Video and HBO, it would have been impossible to discover the

structure of the subtitling services available on them, which was essential for the comparison of the SDH offered on the Spanish Digital Television and the captions, or subtitles, available on online streaming platforms like the ones above mentioned.

Part II was carried out between July 2020 and September 2020, and it did not involve the recruitment of volunteers, as for Part I or Part III of the study. It took some time to check and compare the subtitling services offered on each of the three platforms, due to all the details and features that had to be analysed. However, the comparative study produced highly valuable results, which have benefited Part III of this PhD project.

a) Introduction

The comparative analysis of the subtitles and/or captions offered on three TV series on Netflix, Amazon Prime Video and HBO represents the second phase of the three-phases research project this study is part of and it highlights the similarities and differences in the subtitling services of these OTT platforms.

This analysis was chosen as one of the phases of this PhD project because of the importance of streaming platforms among all kinds of people from around the world.

Day by day more and more people rely on platforms like Netflix or HBO to watch their favourite multimedia production whenever they want, on all sorts of devices and for a cheaper price than cable TV, which releases the audience from the time-, space- and price commitments as created by digital television. As Araújo Vila et al. (2019: 01) affirm “consumers can now watch films, series and other audiovisual contents through mobile devices, which bring up new forms of multi-channel (for example, via Netflix, Amazon Prime...) and schedule-free media consumption, and consequently, more critical consumers”.

The media productions used for this study were chosen on the basis of the top ten most watched TV series in Spain in 2019, according to the GECA study presented in the AEDEMO Television Seminar. Indeed, GECA, the leading audience and entertainment consultant in Spain, announced at the AEDEMO Television Seminar the annual balance of its OTT Barometer, a study designed to measure consumption, habits and preferences of users of major video on-demand platforms operating in the country. (Las Provincias, <https://www.lasprovincias.es/culturas/tv/series-mas-vistas-plataformas-20200214183809-nt.html>). Since this PhD project focuses on Inclusive Subtitling in Spain, it was deemed appropriate to select the most relevant multimedia content to the Spanish Audience.

Moreover, TV series were selected as the audiovisual production of choice due to their relevance in Spain in terms of the three most watched TV series. According to a study run with 484 Spanish spectators in 2019, Araújo Vila et al. (2019) declare that in Spain TV series are the second most watched audiovisual production after the news, a fact that was confirmed by Part I of this PhD project (Table 34 - TV shows preferences), where the respondents confirm the position of TV series as the second most watched audiovisual production with reference to the Spanish audience. In SSDHIS19, TV series seem to be

the most watched multimedia product after movies, which is different from Araújo Vila et al (2019), whose results showed that TV series come after the news.

In 2019 the top three TV series in Spain were *Game of Thrones (GOT)*, available on HBO, *La casa de papel* ('Money Heist' in English), available on Netflix and *Grey's Anatomy*, available on Amazon Prime Video. The first two TV series were originally filmed in English, while 'La casa de papel' was originally filmed in Spanish, however the original language of the three TV series did not matter. In fact, what was analysed was the Spanish subtitling services available on each OTT platform.

In the comparative analysis we decided to evaluate the similarities and the differences of the subtitling services of both the pilot and the second episode of the first season, as well as the first two episodes of the season, of each TV series with the aim of comparing the data retrieved from the study of each streaming platform. The choice of the episodes was based on the representativeness of the two first episodes of a new TV series on the market, as well as the first two episodes of the last season of the same TV series in order to evaluate possible variations of the subtitling services offered on each platform over time. Indeed, by analysing the first two episodes of the first season and the first two episodes of the last season of each TV series it was possible to see the common patterns between the first and the last seasons of each multimedia content, which allowed me to highlight the features characterizing the subtitling services of each OTT platform. If only one episode per TV series had been analysed, one could not have known for sure whether the captions, or subtitles, available on Netflix, Amazon Prime Video and HBO had continued to be structured in the same way throughout the TV series. By analysing four episodes per platform, it was possible to confirm the subtitling features spotted in the pilot by checking the following episodes of the three audiovisual productions.

I conducted the comparative analysis myself, in fact I personally watched the four episodes of each TV series mentioned above and evaluated the most relevant features of each subtitling service offered. Since no previous study was found regarding the comparison of the subtitling services provided by Netflix in *La casa de papel*, by HBO in *GOT* and by Amazon Prime Video in *Grey's Anatomy*, this comparative analysis was conducted based on the similarities and the differences that I personally discovered among the three TV series. This study cannot be representative of all the multimedia productions available on the three OTT platforms; however, it highlights relevant details regarding the subtitling services provided by Netflix, HBO and Amazon Prime Video in the TV series selected for this study. In order to conduct the analysis, the websites 'netflix.com',

'primevideo.com' and 'en.hbonordic.com' were employed, while no participants nor software were included in the analysis. The comparative study consisted of an analysis of both the OTT platforms and of the subtitling services they offered. However, it is imperative to remember that the content and the languages offered to the audience by each of these platforms may change due to the country of residence.

b) The comparative analysis

Amazon Prime Video

Amazon Prime Video is one of the most famous OTT platforms available online in more than 200 countries and that is due to its link to the platform 'amazon.com', where users can buy and sell their products. When buying a product, customers are able to choose between waiting for its arrival on the day proposed by the platform or to obtain a free and fast delivery by purchasing an Amazon Prime membership. The benefits of an Amazon Prime membership are multiple and they are not limited to free and speedy deliveries only. All Amazon Prime users benefit from discounts and offers, but also from the access to music on Prime Music and multimedia content on Prime Video, without any limit or advertisements and on any device. "Prime Video members can watch any time, anywhere through the Amazon Prime Video app on Android and iOS phones and tablets, Fire Tablets, popular LG and Samsung Smart TVs or online at PrimeVideo.com—and can also download all titles to mobile devices for offline viewing" ('Press Release: Amazon Prime Video Now Available in More Than 200 Countries and Territories Around the World', accessed on 12/03/2021). Moreover, on Prime Reading customers can read any ebook they want on any device they own, on Prime Photos they can store their personal pictures illimitably, on Prime Now they can purchase an item and receive it in just two hours, on Twitch Prime customers have access to online videogames, on Prime Family they can benefit from a 15% discount on baby diapers, on Prime Music Unlimited they can listen to more than 50 billion songs and on Prime Student university students can benefit from a 50% discount on the annual amount for the purchase of an Amazon Prime membership, which includes all Prime benefits ('Acerca de Amazon Prime', accessed on 07/08/20). What's more, Amazon Prime Video offers many different audiovisual productions, such as movies, TV series, a kids' section with movies and programs for children, as well as original Amazon Prime multimedia content and awarded audiovisual productions as well. Likewise, Amazon Prime Video "[...] supports dozens of languages, too, ranging from Afrikaans and Albanian to Uzbek and Vietnamese" ('How To Meet Amazon Prime Video's Standards for Captions and Subtitles', accessed on 08/04/21).

"Prime Video offers thousands of movies and TV shows, including popular licensed and self-published content plus critically-acclaimed and award-winning Prime Originals like *The Grand Tour*, *The Marvelous Mrs. Maisel* and *The Tick*, Amazon Original Movies such as Academy Award-winning *Manchester by the Sea*, *The Big Sick* and *The Salesman* and kids series, *Tumble Leaf*, available for unlimited streaming as part of an Amazon Prime membership. Prime Video is also now available to customers in more than 200 countries and territories around the globe at www.primevideo.com". (Amazon Studios: 'What is Prime video?'. Accessed on 12/03/21).

Independent movie makers are free to submit their work to Amazon Video Direct to try publishing their multimedia content on Amazon Prime Video. All videos submitted to the platform must include an audio track with a separate file for captions, since Amazon does not admit silent multimedia productions.

“For legal reasons surrounding compliance with the Americans with Disabilities Act (ADA), all videos submitted to Amazon must include closed captions. Closed captions are timed-text assets that can be turned on or off and include both spoken dialogue as well as atmospherics such as sound effect cues and speaker identification for the deaf and hard of hearing. [...] If you’re publishing content to Prime Video in the US, closed captions and audio must both be in English. That’s because the listing language of a Prime Video title must match the location’s supported languages. English must also be used as the language of the title metadata.” (‘How To Meet Amazon Prime Video’s Standards for Captions and Subtitles’, accessed on 08/04/21).

Grey’s Anatomy

Grey’s Anatomy is an American TV series about the personal and professional lives of five medical interns and their supervisors, available on Amazon Prime Video. Started in 2005, and still ongoing, the drama presents seventeen seasons of an average duration of 20 episodes per season and 41 minutes per episode. In this study, the episodes chosen for analysis were the pilot and the second episodes of the first season, as well as the first two episodes of the last season, of each series involved, due to their representativeness in terms of style, duration and captions—or subtitling service—offered by each OTT streaming platform.

The pilot episode of *Grey’s Anatomy* is called ‘Una noche de un duro día’ (‘A Hard Day’s Night’) and it lasts 43 minutes 22 seconds. As far as the audience experience is concerned, the user can choose the quality of the multimedia production, which on Amazon Prime Video can be ‘good’ (0.38GB/1h), ‘better’ (1.40GB/1h) or ‘optimal’ (6.48GB/1h). Moreover, the user can select the preferred language for both the audio and the subtitling service offered. The possible languages for the audio are English, Spanish (Spain), Spanish (Latin America), French, Portuguese and Italian, with English as the only captioning option, while the languages available for common subtitles, i.e., no SDH, are: Spanish (Spain), Spanish (Latin America), French, Portuguese, Italian, Dutch and no subtitles. So, captions are offered in English only, whereas the other languages are presented as simple subtitles. Finally, users can choose among five different sizes of captions/subtitles and they can select both the colour and the background colour of the captions. The possibilities are: white captions on black background, white captions with no background, yellow captions on black background and black captions with no background.

“On broadcast, and consequently in broadcaster video-on-demand platforms (BVOD), colour is the favoured technique for speaker identification (Ofcom 2017; BBC 2019), although we may still come across positioning as a technique for identifying speakers when old subtitle files are used. The BBC specifies the use of four colours: white, yellow, cyan and green, in order of priority. The narrator is conventionally allocated yellow”. (Zárate, 2021: 63)

In this study the languages chosen for analysis are Spanish (Spain) audio and Spanish (Spain) subtitles. The size of the caption was kept as default choice—i.e., medium size—while for the colour and the background colour of the captions, white on see-through grey background were the selected colours, also as default choice.

As the pilot episode starts, ‘Clasificación 16+: lenguaje malsonante, contenido sexual, violencia’ (‘Rating 16+: foul language, sexual content and violence’) appears on the top left of the screen. ‘Clasificación 16+’ (‘Rating 16+’) is written in uppercase letters in light blue colour, while the rest is located under it and it is written in lowercase letters in white colour. Thanks to this information, the audience is warned of the type of content offered in this episode, as well as of the recommended age of the viewers. In the meantime, music is playing in the background, with no notification of it on the screen, nor in the subtitles. The main character starts speaking, ‘Dr. Meredith Grey’, while no identification is provided. Indeed, no name (or surname), no dash or any other identification method is used to let the audience know who is speaking. The only way to know which character is speaking at any given moment is by interrupting the episode and checking on the left side of the screen, where small pictures of each of the actors present in a given scene are presented. Under each picture, both the real name and the character’s name are provided to the viewers. With regards to the Standard UNE 153010:2012, the identification of characters is considered as extremely relevant for the correct comprehension of the audiovisual productions on screen, as the footnote 1 of chapter 6.1 states “La identificación de los personajes es esencial para facilitar el seguimiento de la trama argumental de algunos contenidos audiovisuales” (“Character identification is essential to facilitate plot tracking”). In order to provide an efficient identification for all the characters at any moment, the Standard UNE 153010:2012 states that there are three possible ways to identify each speaker and these are: through the use of colours, through the use of name tags or by introducing their speech with a dash (Standard UNE 153010:2012). Colours is the method most used in Spain and the preferred type of character identification according to the selected Spanish audience that took part in the first part of this research. However, in case of a possible confusion, it is possible to add name tags before the characters’ speech, or to use the dash symbol whenever two, or more, characters are speaking at the same time.

Once the episode begins, the subtitles appear on the screen in lower case letters, reporting the content of the character’s speech. However, the subtitles do not correspond to what Dr. Grey is saying. The first words of the character are ‘El juego’ (‘The game’), while the subtitles report ‘La medicina’ (‘Medicine’). Dr. Grey continues and says: “Dicen que hay personas con madera para participar y otras sin ella.”, which in English would be “They say that some people have what it takes, while others don’t.” Yet, the subtitles write “Se dice o que tienes madera o no vales.”, which in English it translates “It is said that either you are talented or you are worthless.” In the first example, one notices that the concept ‘el juego’ was reported in the subtitles as ‘la medicina’, thus translating the metaphor of ‘medicine being a game’ to the viewers reading subtitles. In the second example, the metaphor used in Dr. Grey’s speech is actually reported in the subtitles, without changing it for a non-metaphorical expression of the same concept, and the content of Dr. Grey’s speech is rephrased. These examples show how the subtitles do not correspond to what the characters actually say, because they report an adapted version of the speech’s content.

Later on, Dr. Webber asks the interns which ones are the common cause of post-op fever and Dr. Grey says “Pulmones, infección, coágulos y antibióticos” (‘Lungs, infection, clots and antibiotics’). In the subtitles it is written “Aire, Heridos, Agua, Drogas y Agotamiento” (‘Air, injured, water, drugs and exhaustion’). As we can see, the two expressions do not have the same length, which means that probably Dr. Grey’s speech was modified in order to respect the maximum number of characters per subtitle. Although we are not sure whether that was the case on Amazon Prime Video, chapter 4.6 of the Standard UNE 153010:2012 (Standard UNE 153010:2012, page 9) states that: “El límite máximo de caracteres por línea debería ser de 37”. For Amazon Prime Video, all videos available on the platform must follow the Federal Communication Commission (FCC) standards “for completeness, accuracy, synchronicity, and placement” (‘How To Meet Amazon Prime Video’s Standards for Captions and Subtitles’, accessed on 08/04/21).

“FCC rules for TV closed captioning ensure that viewers who are deaf and hard of hearing have full access to programming, address captioning quality and provide guidance to video programming distributors and programmers. The rules apply to all television programming with captions, requiring that captions be:

- Accurate: Captions must match the spoken words in the dialogue and convey background noises and other sounds to the fullest extent possible.
- Synchronous: Captions must coincide with their corresponding spoken words and sounds to the greatest extent possible and must be displayed on the screen at a speed that can be read by viewers.
- Complete: Captions must run from the beginning to the end of the program to the fullest extent possible.
- Properly placed: Captions should not block other important visual content on the screen, overlap one another or run off the edge of the video screen.

The rules distinguish between pre-recorded, live, and near-live programming and explain how the standards apply to each type of programming, recognizing the greater hurdles involved with captioning live and near-live programming.”

The FCC standards do not concern the design of subtitles, rather they focus on captions only.

Regarding the subtitles’ structure on Amazon Prime Video, it consists of one- or two- line subtitles. Exceptionally, the subtitles present three lines. If two or more characters are talking at the same time, or one after the other within the same period, the subtitles begin with a dash. Subtitles do not follow the speaker’s position during a scene, as they are always placed centered at the bottom of the screen. As a matter of fact, the subtitles are never moved to the top, nor to either side of the screen, even when other written words appear on the screen at the same time. For example, at the beginning of the episode, the names of cast members of *Grey’s Anatomy* are shown centered at the bottom of the screen,

while the subtitles are also presented at the same moment, on top of the actors' names, which makes the subtitles more challenging to read.

In contrast with the subtitles' positioning adopted by Amazon Prime Video, chapter 4.1 of the Standard UNE 153010:2012 affirms that “Los subtítulos de todo aquello que no sean efectos sonoros deben aparecer centrados en la parte inferior de la pantalla excepto cuando oculten información relevante” (“Subtitles for anything other than sound effects should appear centered at the bottom of the screen except when they hide relevant information”). Both the Spanish Standard and Amazon Prime Video prefer to locate the subtitles at the bottom of the screen in the middle, however, while the former clearly states that if the subtitles cover up other information, they must be placed somewhere else, unlike APV, which does not modify the subtitles' position on screen.

When there are words written in English on the screen, a translation is provided in the subtitles in upper case letters, but only if the translation does not cover the characters' speech. At the beginning of the episode, ‘Hour 1’ appears on the screen, however no translation is reported in the subtitles, because at the same time there are characters talking; in contrast, later on in the episode, ‘Hour 7’ appears on the screen and the translation ‘Hora 7’ appears in the subtitles, because no character is talking at that moment. Moreover, the translation of wall signs is also provided at times, as for the case of ‘prohibido el paso, solo personal autorizado’—S1E1/11:06 (Season 1 Episode 1 at 11 minutes 06 seconds from the beginning of the episode)—, which appeared on a wall sign saying ‘no entry unless accompanied by staff’.

Music and background sounds are left unspecified to the audience, regardless of whether they might be relevant to the audience. Indeed, music is never reported in the subtitles, not even at the beginning of the episode, when the official soundtrack of the TV series is played nor when a song is used to mark a relevant moment in the episode. As for the characters' identification, the presence of important songs in *Grey's Anatomy* is actually notified to the viewers by pausing the episode and checking on the left side of the screen. There, the pictures of each actor in the scene with their respective fictional and real names are presented, as well as the image of the song's album with the name of the song and the one of the band/artists playing it. If the viewers do not pause the episode to find out for themselves if there are any songs playing, they can never know of their presence. As far as background sounds are concerned, no sound specification is ever offered to the audience. An interesting feature of Amazon Prime Video is that on the top left corner of the screen there is a button named ‘X-Ray Ver Todo’ (‘X-Ray See All’), which leads to a lot of useful information for the viewers. Indeed, if the viewers click on this button, they will be able to choose among ‘Escenas’ (‘Scenes’), ‘En escena’ (‘In this scene’), ‘Reparto’ (‘Cast’) and ‘Música’ (‘Music’). ‘Escenas’ (‘Scenes’) allows the audience to see all the scenes of the episode that they are currently viewing and to choose which scene to watch next, in case they want to go back or skip part of the episode. ‘En escena’ (‘In this scene’) shows the audience which scene is playing at that given moment. ‘Reparto’ (‘Cast’) displays the images of all actors present in the episode with their real names and their characters' names. Finally, ‘Música’ (‘Music’) offers a list of all the songs played in the episode, with the images of each song's album, the name of the artist who plays it and the names of the songs.

The way Amazon Prime Video deals with music and background sounds is very different from the Standard UNE 153010:2012, according to which relevant sound effects must be specified in the subtitles, for a correct apprehension of the multimedia content. Indeed, any sound effects that are relevant to a scene must be transcribed in parenthesis with the first letter written in upper case and the rest in lower case letters. In the Standard UNE 153010:2012, music and background sounds are considered a significant element of the narrative content, whether they are part of a movie or during the news, for the audience to be able to fully comprehend the multimedia production they are enjoying. Therefore, the subtitling features retrieved in this first part of the comparative analysis neither matches the guidelines of the Spanish Standard UNE 153010:2012 nor the preferences of the (selected) Spanish Audience, as shown in Table 41 (page 100).

The second episode of *Grey's Anatomy* is called 'El primer corte es el más profundo' ('The first cut is the deepest') and it lasts 42 minutes 46 seconds. As the episode starts, 'Clasificación 16+: violencia, desnudez, contenido sexual, lenguaje malsonante, consumo de drogas' ('Rating 16+: violence, nudity, sexual content, foul language, drug consumption') appears on the top left of the screen. 'Clasificación 16+' ('Rating 16+') is written in uppercase letters in light blue colour, while the rest is positioned under it and it is written in lowercase letters in white colour. As for the pilot episode, also in the second episode, the audience is warned about the recommended age of the viewers and it is informed of the content of this audiovisual production. Although in this episode the content involves more topics than the previous episode, the recommended age of the audience remains sixteen years old or more. Once again, on the top left corner of the screen, there is the button 'X-Ray Ver Todo' ('X-Ray See All'), which allows the audience to access four other buttons, called 'Escenas' ('Scenes'), 'En escena' ('In this scene'), 'Reparto' ('Cast') and 'Música' ('Music').

The audience experience is the same as for the pilot episode, i.e., the viewer can customize the captions/subtitles in terms of the quality of the multimedia production, the preferred languages for the audio and the subtitles, the size of captions/subtitles and in terms of both the colour and the background colour. As for the pilot episode, the languages chosen for analysis were Spanish (Spain) audio and Spanish (Spain) subtitles. The size of the captions was kept as the default choice— i.e., medium size —while for the colour and the background colour of the captions, white on see-through grey background were the selected colours, also as default choice.

As the second episode starts, the scene opens to a short summary of the previous episode, which the audience can either decide to enjoy, or to skip by clicking on the option 'Omitir resumen' ('Skip recap') present on the right on the screen. This option is granted as a grey button with the words 'Omitir resumen' written in white colour. In the summary, which lasts 1 minute 8 seconds, images of the pilot episode are displayed, and with them the corresponding subtitles, with the aim of reminding the audience of the content of the previous episode.

Once the summary is over, the episode starts with upbeat music in representation of a new and exciting day, however no notification of the music is reported in the subtitles. The same is the case for all background sounds, including any music in the episode, even though they might be relevant to the audience. For example, when the doctors are requested in a certain room, due to an emergency, no 'pager beeping' is ever reported in the subtitles,

which makes the scene more confusing to the audience. Indeed, the audience does not know yet why the doctors are suddenly running from one room to another, so they simply have to assume that there is an emergency. Later on, Dr. O'Malley enters a patient's room, where the sound of the flatline is coming from the electrocardiogram (EKG) of the patient. The flatline sound is typically known to denote the dying status of a patient. However, as no notification of the sound is reported in the subtitles, and the viewers can only see that the doctor enters the room and then he looks in the direction of the patient, who is not part of the shot, the audience might have doubts regarding the events happening at that moment. With reference to the notification of background sounds in the subtitles, it is important to note that in the results retrieved in Part I of the study, the participants affirmed that they wished they would have known whether sounds, music or noises were present in the background of the videoclips they were asked to watch (page 99). From this statement, it is possible to assume that the acknowledgement of background sounds in the subtitles may contribute to the viewers' understanding of the plot of any multimedia productions.

As mentioned in the previous episode, background sounds are never reported in the subtitles, while in order to discover whether music is present at any given time, the only option for the viewers is to interrupt the episode and look at the left side of the screen. If a song is playing, a small picture of the song's album is presented with the song's name and the name of the band/artists playing it. Therefore, it is possible to confirm that the Standard UNE 153010:2012 and Amazon Prime Video do not share the same guidelines in terms of notifying the viewers about the presence of music and background sounds during their audiovisual productions via subtitles. However, the same cannot be said with regards to the captions. Indeed,

“Extended silent scenes should be captioned with [no audio]. If there is background music, the music should also be captioned. If the music contains lyrics, the lyrics should be captioned verbatim. The lyrics should also be introduced with the name of the artist and the title in brackets. If the music is instrumental, without lyrics, descriptive words should be included in brackets to give a sense of the tempo and mood of the music” (‘How To Meet Amazon Prime Video’s Standards for Captions and Subtitles’, accessed on 08/04/21).

In *Grey's Anatomy*, the subtitles' structure in episode 2 remains the same as the pilot episode, i.e., the subtitles are presented in a one- or two-lines design.

At the beginning of the episode, Dr. Grey is seen hanging a sign on a wall of the hospital that says 'Roommates wanted', which is translated with 'Busco compañeros de piso' in upper case letters. Later on, Dr. O'Malley and Dr. Grey go to paediatrics to look after some new-borns. As the camera shows the babies in their small cribs, we can see that each crib has a sign saying either 'Soy un niño' ('I'm a boy') or 'Soy una niña' ('I'm a girl'). Every time the camera shows these small signs, the subtitles report their content in upper case letters. These examples seem to indicate a strategy used in this TV series to report signs' content in upper case letters in the subtitles. Zárate (2021: 47) declares “Upper case is used in SDH to indicate emphasis or loud speech (Ofcom 2017; BBC 2019). It may be applied to a single word or a full sentence.” In this case, there was no loud speech, however this

OTT platform decided to use the uppercase letter to highlight the content of signs. The reason why ‘Soy un niño’ and ‘Soy una niña’ were reported and translated in the subtitles is due to the guidelines of Amazon Prime Video, which clearly states that subtitles must report the content of the dialogue present on screen, while the ‘forced narratives’ are supposed to do the following:

“[...] translate spoken dialogue and onscreen text that is in a different language from the primary audio content of the program when creative intent requires that the dialogue be understood by the viewer. They are displayed to the customer based on their audio choice, rather than selecting that subtitle language. If a title contains Forced Narrative content, delivery of separate Forced Narrative timed text assets is required for each language available in a multi-track audio (MTA) package” (Prime Video Global Content Guide v6.0 2018: 79)

As in the pilot, the subtitles in the second episode do not correspond to what the characters actually say, but are rather an adapted version of the characters’ speech. On this matter, it is important to highlight that not even the sayings used in this TV series are reported verbatim. For example, S1E2/ 11:26, Dr. Yang says ‘Está Usted hecho un toro’, which in English is translated with ‘You are as strong as a lion’. However, the saying used by Dr. Yang is not reported as it is said, but in the subtitles, it is written as follows: “Está Usted como una rosa, o lo que sea”. This saying in English translates with ‘You are in perfect shape, or whatever’. The two sayings do not mean exactly the same thing, because while the first one conveys an idea of being strong, the second one translates into being healthy. This leads to a double deprivation of the audience, who is deprived of both knowing the true meaning of the character’s speech, and of learning new sayings. Again, S1E2/12:15, Dr. Yang says ‘Vaya, el cuerpo del delito’, which in English translates with ‘Wow, the body of the crime’. However, in the subtitles Dr. Yang’s speech is reported as follows, ‘A eso se le llama hincar el diente’, which translates literally into English as ‘This is called sinking the tooth’. The expression used by the characters refers to the fact that a patient of the hospital cut off a piece of another human being by using her teeth, that is why in Spanish it was used the expression ‘hincar el diente’, which as a saying it actually means ‘to become the owner of someone else’s belonging’. The two sayings do not carry the same meaning, nor are they related, and they are intended to highlight different perspectives of the situation.

The first episode of the sixteenth—and last season so far—of *Grey's Anatomy* is called ‘Nada a lo que aferrarse’ (‘Nothing to cling on to’) and it lasts 43 minutes 4 seconds. As in the first season, also in the sixteenth season the recommended age of the viewers and the content of this audiovisual production is displayed explicitly on the top left corner of the screen: ‘Clasificación 13+: consumo de drogas, lenguaje malsonante, contenido sexual, violencia’ (‘Rating 13+’: drug consumption, foul language, sexual content, violence’). ‘Clasificación 13+’ (‘Rating 13+’) is written in uppercase letters in light blue colour, while the rest is located under it and written in lowercase letters in white. Even though the content of this episode involves the same—or most of the—topics of the first season of *Grey's Anatomy*, the recommended age for this episode is only thirteen years old or more, while in the first season it was sixteen years old or more. No explanation is provided to the audience on screen or on the website of ‘Prime Video: Ayuda, Calificaciones de edad’

(‘Prime Video: Help, Maturity ratings’). Furthermore, while in the first season of the show the viewers could discover which songs were played in each episode just by clicking on the button ‘X-Ray Ver Todo’ (‘X-Ray See All’) –which in season 1 allowed the audience to access four other buttons, called ‘Escenas’ (‘Scenes’), ‘En escena’ (‘In this scene’), ‘Reparto’ (‘Cast’) and ‘Música’ (‘Music’)— in this episode the button ‘X-Ray Ver Todo’ (‘X-Ray See All’) gives the audience the possibility to choose only among ‘Escenas’ (‘Scenes’), ‘En escena’ (‘In this scene’) and ‘Reparto’ (‘Cast’). Consequently, the viewers are not offered the chance to find out which songs are played in each episode of *Grey’s Anatomy*, since they cannot access the section ‘Música’ (‘Music’) anymore. Finally, while in episode 2 of season 1 a short summary of the previous episodes was offered to the viewers, who could decide to either enjoy it or to skip it through a button at the bottom right on the screen, in this episode no recap is provided to the audience.

With regards to the quality of the audiovisual content, as in the first season of *Grey’s Anatomy*, Amazon Prime Video gives the viewers the opportunity to choose among three options: ‘Good’ (0.38GB/h), ‘better’ (1.40GB/h) and ‘optimal’ (6.84GB/h). Moreover, the audience is provided with five possible font sizes of subtitles and with four colour/background colour combinations, which are: white subtitles on black background, white subtitles on no background, yellow subtitles on black background and black subtitles on no background. As in the analysis of the first two episodes, also here the subtitles were left as default with medium font size and white colour on black background colour. Finally, the language selected for the audio and for the subtitles was Spanish (Spain).

As the episode starts, upbeat music is playing in the background, while no notification of it is provided to the viewers on screen. Meanwhile, Dr. Meredith Grey is speaking, however her character does not appear in the scene and no character identification is offered in the subtitles. Dr. Jo Karev is seen taking off some bracelets and a belt in a mental health facility, while Dr. Grey is speaking in the background, which could make the audience assume that the person speaking at the moment is Dr. Karev and not Dr. Grey. The characters are never identified by name on Amazon Prime Video, even when they are speaking with their back to the camera, or when they are not present in the scene at all. If the audience would want to know for sure who is involved in each scene of the episode, they could press ‘pause’ and look to the left side of the screen. There, a small image of the actor present in each scene is provided to the viewers, with their real name and the name of their character in *Grey’s Anatomy*.

With regards to the subtitles, they are positioned at the bottom of the screen in the middle of it, in a one- or two-line structure, however they never report the presence of music or background sounds present in any scene. As for the first two episodes of *Grey’s Anatomy*, also in the sixteenth season the subtitles do not always correspond to the speech of the characters on screen. For example, S16E1/506 Dr. Koracick says “Te llamé y no dabas señales de vida”, which translates to ‘I called you and there was no sign of you.’ However, the subtitles wrote “Te he estado llamando. No sabía nada de ti.”, which in English means ‘I’ve been calling you. I didn’t know anything about you.’ As it is possible to see from the two English translations, the meaning of the two sentences is almost identical, yet the character’s speech is much shorter than the subtitles on screen, where the metaphor ‘no dar señales de vida’, which translates to ‘give signs of life’ or ‘to give signs of being there’,

is not used. Another example can be found in S16E1/10:18, where Dr. Shepherd says “Antes de lanzarme de lleno”, which translates to ‘Before I dive in full’, however on screen the subtitles say “Antes de ir en serio”, which means ‘Before we get serious’. Once again, the use of metaphors is avoided in the subtitles, where a more explicit translation of the character’s speech is preferred.

The second episode of season sixteen of *Grey’s Anatomy* is called ‘Vuelta a la acción’ (‘Back in action’) and it lasts 43 minutes 9 seconds. As the episode begins, the recommended age of the viewers and the content of this audiovisual production is rendered explicit on the top left of the screen: ‘Clasificación 13+: consumo de drogas, lenguaje malsonante, violencia’ (‘Rating 13+’: drug consumption, foul language, violence’). As in the previous episodes, ‘Clasificación 13+’ (‘Rating 13+’) is written in uppercase letters in light blue colour, while the rest is located under it and it is written in lowercase letters in white colour.

With regards to the subtitles, which present a one- or two-line structure, also in this episode none of the background sounds or music is reported on screen. While in the episodes of season one, the audience was allowed to choose among the buttons ‘Escenas’ (‘Scenes’), ‘En escena’ (‘In this scene’) and ‘Reparto’ (‘Cast’) by clicking on the button ‘X-Ray Ver Todo’ (‘X-Ray See All’), located on the top left corner of the screen, in this episode the option ‘Música’ (‘Music’) is not available among the buttons abovementioned. As in episode 1 of season 16, also at the beginning of this episode no recap is provided to the audience, which is a feature that used to be offered to the viewers on season 1.

The episode begins with upbeat music to signify the beginning of a new day, while Dr. Meredith Grey is speaking in the background without actually being in that scene. Her speech is reported in the subtitles, however her character is not identified. Once again, the subtitles do not present the exact same words used by the various characters on screen. For example, S16E1/6:32, Dr. Shepherd and Dr. Pierce are talking in the car about possible hashtags to use in an Instagram’s post. Dr. Shepherd says “El mío sería ‘#tiro por la culata’”, which translates to ‘Mine would be ‘#joke’s on me’’, however in the subtitles it is written “Yo pondría ‘#etiqueta por hablar’”, which translates to ‘I would put ‘#label for talking’’. The two sentences do not report the same words, nor the same meaning of the character’s speech. Another example can be found in S16E1/6:52—Dr. Pierce is sitting in the car with Dr. Shepherd when suddenly somebody crushes their bicycle against Dr. Pierce’s car, which was parked and not in motion. As the accident happens, Dr. Pierce says “Y venga problemas”, which in English would be ‘And here we go more troubles’, however the subtitles write “Los golpes se suceden”, which translates to ‘The hits keep coming’. Taking into account the context of Dr. Pierce’s speech, the subtitles are coherent to the scene, however they do not report exactly what the character actually says on screen. In S16E1/33:46 Dr. Karev is talking with Dr. Webber regarding the difficulties of his new job as Head of the hospital and he invites Dr. Webber not to give up on their project of improving the hospital’s performance, when he says “[Vamos] a demostrar que Bailey yerra”, which in English would be ‘[Let’s] prove Bailey wrong’, yet in the subtitles it is written “[Vamos] a quitarle a Bailey la razón”, which translates to ‘[Let’s] take away Bailey’s reason’. The two sentences convey a similar meaning, however they do not present the same words.

Netflix

Netflix represents the most famous OTT platform available, with 167 million paying subscribers around the world, thanks to its variety in multimedia content and its low fares. Available in over 190 countries, Netflix offers award-winning TV shows, movies, documentaries and more on multiple online devices. Consumers can watch audiovisual productions by surfing on the Internet or through the Netflix App available for smart TVs, laptops, tablets or phones. Moreover, Netflix gives the audience the opportunity to download multimedia content for free that can be watched in offline mode. As far as the price is concerned, Netflix offers three different membership plans called ‘basic’ (7.99€/month), ‘standard’ (11.99€/month) and ‘premium’ (15.99€/month). All three membership plans offer unlimited multimedia content, while the difference in price is due to the amount of online content available on one (basic plan) or more screens (standard and premium) at the same time and to the number of phones/tablets users can download on. HD content is available for ‘standard’ and ‘premium’ members only, while ultra-HD is offered to ‘premium’ members alone.

As for the audiovisual content available on Netflix, viewers can choose among a wide variety of award-winning Netflix Originals, TV shows, movies, documentaries, and more. As in Amazon Prime Video, also on Netflix there is a kids’ section, where children can choose among many movies or programs for kids. Although Netflix is available in almost 200 countries, the audiovisual content offered on the platform is not the same all over the world, but it varies in every country and it changes over time. Moreover, this OTT platform recommends the viewers possible audiovisual content that they could enjoy basing itself on the multimedia productions already watched.

“Todd Yellin built the engine that cleverly recommends TV shows and films that users might like – it can deliver more than 76,000 different genre types such as

“alien films from the 1970s” – and feeds their viewing habits back into the datadriven Netflix programme commissioning machine. “We own the Netflix customer experience from the moment they sign up, for the whole time they are with us, across TV, phone and laptop,” says Yellin, vice president of product innovation. “We climb under the hood and get all greasy with algorithms, numbers and vast amounts of data. Getting to know a user, millions of them, and what they play. If they play one title, what did they play after, before, what did they abandon after five minutes?”. (The Guardian: ‘Netflix gathers detailed viewer data to guide its search for the next hit’. Accessed on 12/03/2021).

As it is possible to notice, Netflix tries its best to please the audience of each country individually, in order to obtain the maximum number of happy subscribers. Although, that is not the only component relevant to this world-famous OTT platform. Indeed, Netflix created “a Unicode standard based i18n-grade timed text processing pipeline”.

“Every timed text source delivered to Netflix by a content provider or a fulfillment partner goes through the following major steps before showing up on the Netflix service: 1. Ingestion [...], 2. Inspection [...], 3. Conversion [...]. As the number of regions, devices and file formats grow, we must accommodate the ever-growing requirements on the system. We have responded to these challenges by designing

an i18n grade Unicode-based pipeline”. (Netflix Technology Blog: ‘A scalable system for ingestion and delivery of timed text’. Accessed on 12/03/2021)

Timed text is one of the most important components of Netflix, which is why the OTT platform formulated its own general requirements that captions and subtitles must follow in order to be accepted by this OTT platform. Besides the general requirements, there is an English Timed Text Style Guide, which is divided into English SDH Style Guide and English subtitles Style Guide, and a Subtitle Template Timed Text Style Guide. English timed text must follow the general requirements in order to be uploaded to the respective multimedia production, as it happens in any other language (‘Netflix: Partner Help Center: Timed Text Resources’, accessed on 08/04/2021).

La casa de papel

Written and produced by film director Álex Pina, *La casa de papel* (*Money Heist*) is a Spanish production that premiered on the Spanish TV channel ‘Antena 3’ on May 2, 2017, with more than four million viewers. Distributed worldwide by Netflix, this TV series led to the signing of an exclusive contract with the famous OTT platform for the creation and production of original series. *La casa de papel* is a crime drama of four seasons, however it is still ongoing, with a general of 8 episodes per seasons and episodes of approximately one-hour duration that talks about an unusual group of criminals, whose aim is to steal 2.4 billion euros from the Royal Mint of Spain, a robbery nobody would have imagined possible.

As far as the user experience is concerned, *La casa de papel* offers the possibility of choosing among German, English, European Spanish [original language], English [Audio Description] and European Spanish [Audio Description] for the audio, while for the captions—or subtitles—the user can choose among no subtitles, European Spanish [CC], English [CC], English, Finnish, Swedish and Russian. As it is possible to notice, English does not result to be the only language available for captioning, but European Spanish is also available as a captioning option. Although the size, colour and background of the captions—or subtitles—are not possible to personalize like in Amazon Prime Video, Netflix offers audiodescription options, which renders the TV show accessible to persons with visual impairments too. Finally, unlike Amazon Prime Video or HBO, Netflix offers the option of customizable playback speed, which can be chosen among five different speeds: 0.5x, 0.75x, 1x(Normal), 1.25x and 1.5x. In Part I (page 95) the subtitles’ speed was one of the three most voted subtitling features that the (selected) Spanish Audience wished to see changed in the future, as shown in Table 35.

The pilot episode is called ‘Efectuar lo acordado’ (‘Do as agreed’), it lasts 48 minutes 15 seconds and it tells the story of how the robbery of the Royal Mint of Spain began. The Professor planned the perfect plan and now he needs to recruit the people that will make it all possible.

Once again, European Spanish [original language] and European Spanish [CC] were the audio and captioning options selected for this analysis. The episode starts with background noises of shooting and people screaming, when Tokio (one of the main characters) wakes up from a dream. All relevant background noises and sounds are reported in the captions, they are written in lowercase letters in white colour over no background colour and they are placed at the top of the screen on the right. It seems relevant to note that in Part I the (selected) Spanish Audience highlighted the importance of sounds, noises and voices in multimedia productions, as these elements greatly contribute to the understanding of any audiovisual product (page 94).

Tokio starts telling her story, but the audience does not see her talking. She is narrating her situation, as if she would be thinking about it, while the audience does not see her speaking, but can only hear her voice. When Tokio starts her tell, her words appear in the captions between commas, written in lowercase letters in yellow colour over no background. Tokio is identified by the yellow colour, while the Professor by the pink colour. Two more characters are also identified with colours, i.e., Monica with green and Arturo with light blue, both over no background colour. When any of the other characters are speaking, the caption appears in white colour over no background. If any of the characters is speaking, and he/she is not Tokio, the Professor, Monica or Arturo, he/she is identified by name written in upper case letters in parenthesis before his/her speech. For example: “(NAIROBI) ¡Tira! ¡Tira! ¡Tira!” (‘Go! Go! Go!’). Other times, if the person speaking at the moment is not one of the main characters, he/she is simply identified by their role, for example: “(PROFESORA) Vale, chicos. Vamos entrando” (‘Ok, guys. Let’s go inside’). The characters are not always identified, sometimes they are and sometimes they are not. In contrast with Netflix’s characters’ identification method, it seems relevant to highlight the fact that neither Amazon Prime Video nor HBO ever introduces any character by name. In fact, no speaker is ever identified on either OTT platform, whether the characters’ faces are visible or not, it does not matter. On Netflix, every time a character is speaking in a scene, but his/her face is not visible, his/her name—or roll in the audiovisual production, like ‘profesora’—is written in parenthesis in upper case letter before his/her speech. Yet, whenever the face of the speaker is noticeable and clear to the viewers, his/her name, or roll, is left unspecified. Only those characters, who were identified by colour from the beginning are always identified due to the colouridentification. The character identification guidelines provided by Netflix state that translators should “only use speaker IDs or sound effects when they cannot be visually identified. [However] if the linguist is not 100% positive on who is speaking off-screen, lean toward the safer side, and use a generic speaker identifier, i.e. [man], [male voice], etc.” (Netflix Partner Help Center, Timed Text Style Guide: Supplemental Service & Marketing Assets, accessed on 12/04/2021).

It is interesting to compare the characters’ identification method used by Netflix and the guidelines provided by the Standard UNE 153010:2012 on the topic. While Netflix identifies some of the characters on screen depending on whether their face is visible to the viewers—as in the case of the use of names or professions—or whether their character is particularly relevant to the TV series—as in the case of the use of colour-coding—the Spanish Standard 153010:2012 declares the identification of characters as extremely relevant, as already mentioned in the analysis of Amazon Prime Video. As a matter of fact, the Standard UNE 153010:2012 believes that all characters should be always identified in any audiovisual production. The same identification method should be used for all

speakers on screen, through the colour-coding technique. In case such a method cannot be used, or it could cause confusion to the audience, name tags or the symbol dash should be used. The use of colours as identification method for the characters onscreen was also the most voted option by the (selected) Spanish Audience in Part I (page 96), where both hearers and DHH respondents equally declared to prefer this identification method.

As it is possible to notice from the comparative analysis of the two first episodes of ‘La casa de papel’, Netflix does not agree on the same characters’ identification methods as the ones suggested by the Standard UNE 153010:2012.

“Labels and dashes are commonly used in DVDs, VOD and at the cinema to identify speakers or to distinguish between two speakers who appear in the same subtitle, the use of dashes being a convention commonly used in interlingual subtitling. Since there are no stylistic guidelines that have been adopted at an international or national level, standards vary widely, meaning that the following variations, among others, may be used, depending on the broadcaster or language service provider”. (Zárate, 2021: 64)

On Netflix, the caption presents a one- or two-lines structure and its content corresponds to the characters’ speech. Netflix prefers subtitles and captions to be presented in a one-line structure of 42 characters, yet in case this is not possible, a two-line structure is allowed (‘Netflix Partner Help Center: Supplemental Service & Marketing Assets’, accessed on 12/04/2021). As it is possible to notice, the maximum number of characters per line on Netflix does not correspond to the one recommended by the Standard UNE 153010:2012, which states “El límite máximo de caracteres por línea debería ser de 37” (“The maximum limit of characters per line should be 37”) (Standard UNE 153010:2012, page 9). As far as accuracy of content is concerned, Netflix’ guidelines clearly state that translators should “include as much of the original content as possible”, without simplifying “or water down the original dialogue” (‘Netflix Partner Help Center: Castilian & Latin American Spanish Timed Text Style Guide’, accessed on 12/04/2021).

The caption is placed at the bottom in the middle, yet the text is not displayed in the same spot throughout the whole episode. Indeed, on Netflix the captions—or subtitles—are not fixed at the bottom of the screen, but they move on both at the top and/or at the bottom of the scene. The reason why they can be placed at the top of the screen is because sometimes they could be covering other information appearing at the bottom, so they are moved at the top of the scene. The position of subtitles—and/or captions— on Netflix seems to follow the same guidelines, as the ones provided by the Standard UNE 153010:2012 (Standard UNE 153010:2012, page 8). Indeed, the Spanish Standard requires all those subtitles that are not sound effects to be written in the middle at the bottom of the screen, whilst in case of sound effects, the subtitles must be placed on the top right of the screen: “Excepto en el caso de subtítulos en directo, cuando un sonido se considere efecto sonoro su subtítulo debe ubicarse en la parte superior derecha, siempre que sea técnicamente posible.” (“Except in the case of live subtitles, if a sound is considered a sound effect its subtitle should be located in the upper right, whenever technically possible”) (Standard UNE 153010:2012, page 8). Netflix and the Standard UNE 153010:2012 seem to share the same subtitling strategy with reference to the position of subtitles/captions on screen.

On Netflix the presence of music is usually not reported—when the soundtrack of the TV series appears, no information is provided to the viewers regarding the presence of music in the background—, however relevant background sounds are acknowledged in the captions. Sounds and noises are placed in parentheses at the top of the screen on the right side, written in white colour with the first letter of the subtitled sound effect in upper case letter and the rest in lower case letters. The acknowledgement of music in the pilot episode of *La casa de papel* differs from the guidelines of the Standard UNE 153010:2012, which clearly states that “Se debería subtítular la música si es importante para ayudar al espectador a comprender la trama, utilizando uno o más de los tres contenidos siguientes: a) el tipo de música; b) la sensación que transmite; c) identificación de la pieza (título, autor...)” (“Music should be subtitled if it is important to help the viewer understand the plot, using one or more of the following three contents: a) the type of music; b) the feeling it transmits; c) identification of the piece (title, author...)”) (Standard UNE 153010:2012, page 15). While Netflix does not report the presence of background music, nor of the soundtrack of this TV series in the pilot episode, the Spanish Standard 153010:2012 explains that music should be acknowledged in the subtitling services whenever relevant to the comprehension of the multimedia content. Therefore, the data collected in this comparative analysis suggest that Netflix does not believe that music is a relevant subtitling feature for the understanding of the pilot episode of this TV series. In the guidelines provided by Netflix on how to subtitle songs, it is reported that translators should “not subtitle song lyrics.” While, “For SDH: [They should] use a generic ID to indicate and describe ambient music (e.g. rock music playing over a stereo)”. Finally, translators are asked to “please use song title identifiers when applicable - song titles should be in quotation marks: e.g. [“Forever Your Girl” playing]” (Netflix Partner Help Center, Timed Text Style Guide: Supplemental Service & Marketing Assets, accessed on 12/04/2021). In the following episode, the presence of background music is reported in the captions in two different moments, which means that Netflix does acknowledge certain moments of music, however it does not report the presence of background soundtracks at all times. Moreover, it is not possible to affirm with certainty whether the presence of music is reported in any other audiovisual production available on this OTT platform, since this comparative analysis focuses only on one TV series.

With regards to the identification of background sounds, the Standard UNE 153010:2012 states that “Se deben subtítular los efectos sonoros necesarios para un buen seguimiento de la trama argumental” (“All background sounds that are essential for a good plot follow-up should be subtitled”) (Standard UNE 153010:2012, page 13). Hence, both Netflix and the Standard UNE 153010:2012 agree on reporting in their subtitling services those sound effects that are relevant to the comprehension of the multimedia content. As for the format, on Netflix background sounds are written in parenthesis in white colour with the first letter in uppercase letters and the rest of the subtitled sound effect in lower case letters, which agrees with the guideline provided by the Standard UNE 153010:2012: “Se deben subtítular los efectos sonoros entre paréntesis y con la primera letra en mayúscula y las demás en minúscula” (“Sound effects should be subtitled in parentheses with the first letter in capital letters and the others in lower case”) (Standard UNE 153010:2012, page 13). From this comparison, we can see that in both cases sound effects should be written in the subtitles, they must be in parenthesis and they must be written with the first letter in upper case letter and the rest in lower case letters.

Episode 2 is called ‘Imprudencias letales’ (‘Lethal recklessness’) and it lasts 42 minutes. It begins with a summary of 1 minute 20 seconds of the pilot’s episode. The summary can be skipped by clicking on a button that says ‘Skip recap’ on the bottom right of the screen. Once the recap is over, the new episode starts. As in the pilot, also in this episode the music of the official soundtrack of ‘La casa de papel’ is not reported in the caption, however Netflix gives the audience the option to skip the soundtrack itself through the ‘Skip Intro’ button at the bottom right of the screen.

Unlike in the pilot episode, episode 2 presents two moments where the presence of music is notified to the viewers. First, during a conversation among the main characters of the show, one of them, called Moscú, starts singing a song. When he starts singing, the lyrics of his song appear in the captions with the symbol of a hashtag (#) before every line, to inform the audience that Moscú is not speaking but singing. Later in the episode, the team of criminals wins the first battle against the police, and to celebrate that moment, the Professor decides to play a vinyl of the ninth symphony of Beethoven. In the scene, we can see the Professor playing the vinyl and—as soon as the music starts playing—at the top right of the screen the name of the song, ‘Novena sinfonia de Beethoven’ (‘Ninth symphony of Beethoven’), appears in white colour between parentheses. These are the only two moments when Netflix informed the viewers of the presence of music. That is due to the guidelines provided by Netflix on how to subtitle songs in their multimedia productions. Indeed,

“Only subtitle plot-pertinent songs if the rights have been granted. Opening and ending theme songs should only be subtitled if clearly plot pertinent (e.g. for children’s content when the lyrics tell a story) or if instructed by Netflix. Normally, adult programs should not have the opening songs subtitled, except for SDH.” (‘Netflix Partner Help Center: Castilian & Latin American Spanish Timed Text Style Guide’, accessed on 12/04/2021).

As in the pilot episode, also in episode 2 all relevant background sounds and noises are notified to the audience at the top of the screen on the right. They are reported in parenthesis written in white colour over no background with the first letter in upper case letter and the rest in lower case letters. As mentioned above, both Netflix and the Standard UNE 153010:2012 agree on rendering relevant sound effects explicit to the audience by writing them in their subtitling services. Moreover, it seems like both the famous OTT platform and the Spanish Standard share the same opinion regarding the format of background sounds. It is important to note that the (selected) Spanish Audience of Part I highlighted the relevance of sounds, noises and voices in all multimedia productions for a better understanding of their content (page 94). Therefore, the guidelines of Netflix and the Spanish Standard both seem to be in line with the preferences of the (selected) Spanish Audience of Part I.

As for the identification of characters, also in this episode the characters are identified by name—or by their role in the TV series—in upper case letters in parenthesis, written in white colour over no background, before their speech. If the character speaking is either Tokio, the Professor, Monica or Arturo, he/she is identified by his/her personal colour. Not all characters are identified at all, but their name is reported in the caption only sometimes.

If the character's face is visible to the public, no identification is provided to the audience, otherwise the name—or role—of the speaker is written in the captions before their speech. When two, or more, characters are talking at the same time, the characters' speech is introduced by a dash.

With regards to the preferences of the Spanish Audience, during Part I of this PhD project we asked participants which method they preferred to identify characters on screen. The most popular answer was colour, followed by the use of dash and by the use of tags. A very small percentage of the participants involved in the study declared to prefer the characters not to be identified at all, while an even smaller group of people answered 'something else'. As mentioned above, the most successful option was 'colour', which was the only answer to receive an almost even percentage share of hearers and DHH participants. That could be due to the fact that the Spanish Audience is already used to the use of colours as identification method for the characters on screen, since it is the most recommended method by the Standard UNE 153010:2012.

A similar question was included in Part III, which inquired the Spanish Audience on which ones are their favourite identification methods for the characters on screen. As we will see in section 3.3 below, the results obtained in the second survey confirmed the results obtained in Part I of the study. Most participants chose the option 'colours', which was followed by the use of tags and then by the use of dash. As mentioned above, 'colours' are the preferred method by the Spanish Audience.

By comparing the preferences of the Spanish Audience and the identification methods used by Netflix, it appears that the Spanish Audience should be pleased by the ways this OTT platform identifies characters on screen. In fact, Netflix uses colours, tags and dashes, which are the three most favourite types of characters identification of the Spanish Audience.

As mentioned above, the possibility of using name tags, or the dash symbol, where two, or more, characters are speaking at the same time are some of the identification methods suggested by the Standard UNE 153010:2012 in order to avoid confusion. With reference to the use of name tags, footnote 3 of chapter 6.1 of the Spanish Standard 153010:2012 states that “La técnica “uso de etiquetas” consiste en anteponer una etiqueta a cada subtítulo, de forma que se identifica al personaje de forma explícita. Las etiquetas se utilizan cuando no es posible o suficiente el uso de colores para identificar personajes y existe algún riesgo de confusión. [...]” (“The “use of labels” technique consists of putting a label before each subtitle, so that the character is explicitly identified. Labels are used when it is not possible or sufficient to use colors to identify characters and there is some risk of confusion. [...]”). Whereas, as regards the use of the dash symbol, footnote 5 of chapter 6.1 affirms that “The “use of scripts” technique consists of putting a script before each character change in a dialog. Example [...], if each character says several sentences,

a hyphen is used to indicate when each character begins to speak, but a hyphen is not used in each sentence of each character”¹² (Standard UNE 153010:2012, page 11).

Episode 1 of season 4 is called ‘Game over’ and it lasts 53 minutes 40 seconds. As for the analysis of the first two episodes of season 1, also here the language selected for the audio was European Spanish [Original] and the language for the captions was European Spanish [CC]. With regards to the audience’s experience, season 4 *La casa de papel* offers the viewers to choose among six options for the audio and among seven options for the subtitles/captions. The languages available for the audio are: German, English, European Spanish [Original], Russian, English [Audio Description], European Spanish [Audio Description]. The languages available for the subtitles/captions are: European Spanish [CC], English [CC], English, Finnish, Off, Russian, Swedish. Moreover, also on season 4 the viewers are given the possibility to choose among five different playback speeds: 0.5x, 0.75x, 1x (Normal), 1.25x, 1.5x. The speed chosen for the analysis of this episode was 1x (Normal) as default. Unlike on Amazon Prime Video, the audience does not have the possibility of customizing the font size or the colour/background colour of the subtitles/captions, however they are offered the chance of customizing the playback speed of the episode, and they are provided with two options for audio descriptions.

As the episode starts, it is possible to notice a difference between the captions offered on season 1 and the ones provided on season 4, which is the colour of the captions. As a matter of fact, in season 1, the captions were mostly written in white colour over no background colour, except for characters, like Tokio or the Professor, who were identified by their personal colour. Indeed, in season 1 Tokio was identified with the colour yellow and the Professor with the colour pink. Yet, in season 4 none of the characters is identified by their personal colour, since all captions are written in lowercase letters in white colour over no background colour. As in season 1, if the characters’ faces are visible, no name— or role in the TV series—is provided in the captions, while in case the audience is unable to identify who is speaking on screen, the character’s name—or role—is written between squared brackets— i.e., [Tokio].

Another interesting feature of season 4 of *La casa de papel* is the identification of music and background sounds, which are reported between squared brackets in the captions. Every time there is a sound whose source cannot be identified by the viewers, because maybe it comes from far away or the sound’s source is simply out of shot at that moment, then the background sound is rendered explicit to the audience in the captions, like for example [motor], [sirens], [push-button] or [panting breath]. Music is identified by type between squared brackets, as for example [action music], [loud music] or [melancholic music]. If in a scene the characters are singing a particular song, then the song is identified by name in squared brackets, S4E1/2:33, when on screen it appears [Berlin sings “Ti amo” by Umberto Tozzi]. Moreover, unlike in season 1, when the soundtrack of *La casa de papel* starts playing, the name of the song is reported on screen between squared brackets, as follows: [“My life is going on” by Cecilia Krull]. The viewers are not provided with the

¹² Original version: “La técnica “uso de guiones” consiste en anteponer un guión delante de cada cambio de personaje en un diálogo. Ejemplo [...], si cada personaje dice varias frases, se utiliza un guión para señalar cuándo empieza a hablar cada personaje, pero no se utiliza un guión en cada frase de cada personaje” (Standard UNE 153010:2012, page 11). Translation provided by PhD candidate Roberta Cepak.

option of skipping the soundtrack of the TV series, as it used to be possible to do in season 1.

In episode 1 of season 4, the captions are located at the center of the screen at the bottom, however sometimes they can be displayed also at the top of the screen in the middle of it. Indeed, if the captions would not be visible at the bottom of the screen, due to the fact that there is already something written on the screen, then they are moved to the top. The captions are always written in a one- or in a two-line structure and—in case there are two or more characters speaking at the same time in one scene—the characters’ speeches are introduced through the use of a dash. Finally, if the characters are thinking, talking to themselves or speaking in a foreign language, the captions are written in italics to symbolize these situations. For example, S4E1/29:34, Palermo decides to let Tokio be in charge of the surgical operation that the characters and her need to perform on Nairobi and says “Messieurs. Au revoir.” These words are written in italics to symbolize the fact that Palermo is speaking in a foreign language (French). However, if the characters’ voices are coming from a digital source, like a television or a mobile phone, then the captions are also written in italics.

Episode 2 of season 4 of *La casa de papel* is called ‘La boda de Berlín’ (‘Berlin’s wedding’) and it lasts 45 minutes 4 seconds. As in the previous episode, also here the captions have a one- or a two-line structure and they are placed at the bottom of the screen in the middle of it, however sometimes they can be displayed also at the top in the center of the screen. The colour and background colour of the captions are white over no background colour and this never changes throughout the entire episode, as no other colour—and no other background colour—are used. Whenever a character is speaking in a foreign language, or is thinking, or talking to themselves, the captions are written in italics on screen. The same happens whenever the characters are speaking on the phone or their voice is coming from a digital source, like a television.

The characters on screen are always identified in the captions by name—or role in the TV series—in case their faces are not visible to the viewers, yet if the characters’ faces are visible while they are speaking, no identification is provided in the captions. Moreover, in case a background sound is not possible to identify by the audience—due to the fact that its source is not in the same scene—said sound will also be rendered explicit in the captions between squared brackets, as for example [helicopter], [sirens] or [shots]. With regards music, it is identified by type in the captions in squared brackets, as for example [upbeat music], [suspenseful music], [tension music]. However, anytime a song presents a deep meaning in the episode, the name of the song is displayed in the captions between squared brackets, as it happens here at 26 minutes 41 seconds from the beginning, when a choir at Berlin’s wedding is singing [“Centro di gravità permanente” by Franco Battiato]. The same happens with the soundtrack of *La casa de papel*, whose title is also reported in the captions, [“My life is going on” by Cecilia Krull]. In episode 2 of season 4, the audience is given the possibility of skipping the soundtrack by clicking on the button ‘skip intro’, placed at the bottom right of the screen.

In S4E2/37:55, Palermo starts singing a song to distract the other members of his team, and as he is singing, the lyrics or the song are displayed in the captions between music

notes. It seems interesting to point out that the lyrics of songs are usually never reported in the captions provided by Netflix, however it could be argued that in this particular scene, the fact that Palermo had a specific intention—of distracting his teammates—made his singing part of the script. Therefore, in this case, Palermo’s lyrics are interpreted as part of the speech, which makes them relevant to the episode. Indeed, when the choir at Berlin’s wedding was singing ‘Centro di gravità permanente’ by Franco Battiato, no lyrics were displayed in the captions, since they were not considered relevant to the plot of *La casa de papel*.

To summarize, on Netflix, the caption reports exactly what the characters say in the episode, unlike in Amazon Prime Video or in HBO; it presents a one- or two-lines structure and it is placed at the bottom of the screen, in the middle, yet the text will not be displayed in the same spot throughout the whole episode. Indeed, on Netflix the captions—or subtitles—are not fixed at the bottom of the screen, but they can move to the top of the screen if there are other elements written at the bottom. For example, at the beginning of each episode, the names of the actors are listed, so the subtitles are placed at the top of the screen.

HBO

HBO is the third OTT platform analysed in this study and also the oldest one among the three online streaming websites of this comparative analysis.

“It was founded in 1972 by Time Inc. The company’s headquarters are located in New York City. HBO—as its full name, Home Box Office, implied— originally emphasized uncut and commercial-free movies, and from the very beginning cable subscribers paid extra for the channel. In 1975 it became the first American network to deliver its programming by satellite and thus became the first national cable channel. Rival cable channels arose, including Showtime, which was owned by the media company Viacom Inc” (‘Britannica: HBO American company’, accessed on 12/04/2021).

The reason why this OTT platform was chosen is due to its importance as a multimedia streaming platform all over the world. Available in most countries, but not everywhere, HBO is considered one of the most famous streaming platforms of all times along with Netflix and Amazon Prime Video. For example, HBO Europe is available in 15 European countries and, depending on the country of residence, both its price and name vary. For example, there is HBO Spain, HBO Poland, HBO Slovakia, HBO Romania, but there is no HBO Italy, because “in 2014 HBO inked a deal with Sky Italia locking down access to the Home Box Office’s most popular content.” (‘HBOWatch’. Accessed 16/03/2021), which means that in Italy HBO multimedia content is only available on Sky HD. Whereas, in Northern Europe, HBO Nordic is available for all viewers in Sweden, Denmark and Finland.

The change in HBO's name does not happen only in Europe, but also in all those countries where HBO is currently available. As a matter of fact, only in North America it is called HBO, whilst in Latin America it is named HBO Latin America, in Canada its name is HBO Canada and in Asia it is called HBO Asia, and it is available in India, in China, in the Philippines, in Indonesia, as well as in other 20 countries. With regards to the United Kingdom, there is no HBO UK, however "all HBO content can be viewed through Sky Atlantic. Sky and HBO have made a deal running through 2020 that allows this." ('HBOWatch'. Accessed 16/03/2021). Similarly, in Russia there is no HBO Russia, but the TV company 'Amedia' signed a deal with HBO that allows all Russian viewers to access the multimedia content offered by HBO directly through them. Finally, with regards to Australia and New Zealand, 'Showcase' is the TV company that agreed to transmit all HBO content on their media in Australia, while 'SkyMovies' was the one who signed a deal with HBO in New Zealand. Moreover, in May 2020 Warner Media launched HBO Max as a new online streaming platform in the USA ('HBO Max online service just launched in the U.S.—here's a first look'. Accessed 10/06/2021), independent from the cable TV, which includes all the content available on HBO, plus HBO Max Original content and WarnerMedia productions—i.e., WarnerBros., New Line Cinema, DC, CNN, Turner, Looney Tunes and more ('Aplicación HBO Max vs HBO: ¿Cuál es la diferencia?'. Accessed 10/06/2021).

As for the content available on HBO, very much like on Netflix and on Amazon Prime Video, it consists of movies, TV series, documentaries and kids' programs and it adapts to the country the multimedia content is being streamed from.

Finally, no information regarding the subtitling guidelines used by HBO or HBO Max were found on either their official websites, nor anywhere on the Internet.

Game of Thrones

Game of Thrones was selected as one of the three multimedia content to be analysed here due to its importance in Spain and in the rest of the world. This TV series was a success that lasted eight seasons, first aired in 2011. *Game of Thrones* tells the story of nine noble families fighting for the 'Iron Throne', the seat of the Seven Kingdoms in the lands of Westeros, while a forgotten threat returns to destroy all living creatures. The TV series has eight seasons with a general rate of 10 episodes per season. Each chapter lasts about 60 minutes, as for the pilot episode, which is called 'Se acerca el invierno' ('Winter Is Coming') and lasts 59 minutes 4 seconds.

As far as the user experience is concerned, in *Game of Thrones* the audience has the possibility of choosing among no subtitles, English or Spanish as preferred language for the subtitles, with no captioning option currently available on HBO. While for the audio, only Spanish and the original language of the TV series are available. Moreover, no personalization of the subtitles is offered to the audience, who cannot change the colour or the background colour of the subtitles, nor can they modify the size of the text displayed on screen. Therefore, the subtitles offered on HBO are not as accessible as the ones

provided by Amazon Prime Video, where subtitles and captions may be customized to the audience's preferences, making the subtitling services more accessible to everyone, including people with visual impairments. The subtitles offered on HBO are white with no background colour and their size is medium, while the note 3 of chapter 4.10 of the Standard UNE 153010:2012 states “Se considera un contraste bueno aquél en el que se escribe en un color claro sobre fondo oscuro, o letra oscura sobre fondo claro.

En general es preferible el uso de colores claros sobre fondos oscuros” (“A good contrast is considered one in which it is written in a light color on a dark background, or dark letter on a light background. In general it is preferable to use light colors on dark backgrounds”) (Standard UNE 153010:2012, page 9). As HBO prefers its subtitles to be written in white, which is the lightest colour, it seems like it should ensure maximum readability on screen. However, if the subtitles are presented in a light scenario, they may become more difficult to read, being without a dark background.

For this study, the language selected for both the subtitles and for the audio was Spanish.

As the episode begins, no notification of background sounds is offered with regards to the HBO soundtrack, nor are the noises present in the scene specified. Neither sounds nor music nor voices are ever reported in the subtitles, making them inaccessible to the audience. The fact that no notification of background sounds is ever transcribed in the subtitles—as it happens in Amazon Prime—renders the multimedia production much more difficult to follow for any person of the Deaf Community, or other persons in need of those extra information, which are extremely relevant for a correct interpretation of any audiovisual production, as stated in the Spanish Standard. Indeed, the Standard UNE 153010:2012 declares background sounds and voices as part of the script, and when relevant they should be rendered explicit to the audience in the subtitles (page 172). Since in HBO no notification of their present is ever to be found in the subtitles, it seems like this OTT platform is not in line with the Spanish Standard on the importance of these audiovisual elements. What is more, the guidelines of HBO differ from the results obtained in both Part I and in Part III of this PhD project. Indeed, in both surveys, the results highlight the importance of background sounds for the Spanish Audience, who affirm that they wish that all relevant background sounds would be transcribed in the subtitles.

When the official soundtrack of the TV series appears on the screen, the name of the show *Game of Thrones* is translated verbally by a speaker, who says “Juegos de tronos”. However, no written translation of the series’ name is provided in the subtitles. On the other hand, once the soundtrack is over, the translation of the episode’s name, ‘Se acerca el invierno’ (‘Winter is Coming’), appears on the screen. Every time the name of one of the lands of the TV series appears on the screen, only its translated name into Spanish is displayed, as if part of the original production. The names of the lands are presented in the subtitles as well. For example, ‘Desembarco del rey. Capital de los siete reinos’ (‘King’s Landing’). No character is ever identified in the subtitles, leaving this task to the audience. All the characters’ names remain the same as the ones used in the original version, but John Snow is translated into Spanish, who is called ‘John Nieve’ (‘nieve’ means ‘snow’ in English).

Whenever a character is speaking in a foreign language—while in the audio the audience can hear the foreign language—on the screen a translated version of the character’s speech

is provided in yellow, without letting the audience know which foreign language was spoken by the characters. In this case, the language spoken by the characters differs from the source language (SL) of the audiovisual production, which makes it a ‘third language’ of the TV series. As Corrius (2008) explains “The third language (L3) is neither L1 in the ST nor L2 in the TT; it is any other language(s) found in either text”. In *Game of Thrones* there are many cultures coming together and when they do, they might speak different languages. Since the majority of them spoke ‘the common language’, the TV series kept English (although we selected Spanish for both the audio and the subtitles) as SL, while the ‘Dothraki’, “a race of nomadic horse-mounted warriors in Essos” (‘Game of Thrones Fandom’, accessed on 14/04/2021), are speaking ‘Dothraki’—i.e., their language. As mentioned above, when the characters speak other languages than English, as in the case of the ‘Dothraki’, the language they are speaking is not the SL, but rather a L3ST.

“The third language is a feature of multilingual texts and communication acts. Each language (L1, L2, and any number of different L3ST and L3TT) may be a distinct, independent language or an instance of relevant language variation, sufficient to signal more than one identifiable speech community being portrayed or represented within a text” (Corrius and Zabalbeascoa, 2011: 115).

For example, in S1E1/34:47, a house master and his guests are waiting for a group of visitors coming from the land of Essos, the Dothraki. The house master says “Welcome, powerful Khal” in Dothraki, while on the screen the Spanish translation (‘Bienvenido, poderoso Khal’) is displayed. As we can see, the translators decided to treat the L3 as the L2, thus translating it into the same language that all the other characters are speaking, without telling the audience about the existence of the L3.

“When L3 is identified as a problem, translators need to decide how to render it in the TT, i.e., how to solve the problem. There are various possible solutions to choose from, which range from not marking it (L3TT = L2; or L3TT = Ø, i.e., delete L3), to clearly distinguishing between different speech groups by what or the way they speak” (Corrius and Zabalbeascoa, 2011: 122)

By translating the language of the Dothraki into English, the translators omitted an important information to the viewers—i.e., the fact that the characters speaking on screen are not part of the same culture, but they have their own culture and their own language, which differs from the common language spoken by the majority of the people in this TV series. The translators made the decision to cease the L3 spoken by the Dothraki as a solution to the problem of how to render it in the TL. This decision implies the unawareness of those viewers, who are relying on the subtitles—or captions—for the understanding of this TV series. Although the audience will receive the translation of the language spoken by the characters, the omission of the existence of the L3 will imply a great loss for the viewers, since later in TV series it will be discovered that being able to speak Dothraki will become of extreme relevance as the story advances. However, if the mere existence of this L3 was not reported from the beginning, the audience will not grasp the full relevance of this language in *Game of Thrones*.

With regards to the characters' speech, it is written in lowercase letters, in white colour over no background. The subtitles do not report what the characters say, but they are a rather adapted version of their speech. For example, in S1E1/4:00, a man says "Vamos, sube a tu caballo. No volveré a decirlo", which in English translates with 'Come on, get on your horse. I won't say it again'. However, the subtitles report "Regresa al caballo. No lo repetiré", which in English translates with 'Go back to your horse. I won't repeat it'. The meaning of the two sentences is very similar, yet the subtitles do not correspond to what the characters say. The speakers are never identified by name during the episode, however when two –or more– characters are speaking at the same time, or in the same scene, their speech is introduced with a dash. The subtitles present a one- or two-lines structure and, as far as the analysis of the pilot episode is concerned, no three- lines structure is ever used. Finally, in HBO the subtitles do not move on the screen, but they are fixed at the bottom in the middle.

The second episode, called 'El Camino Real' ('The Kingsroad'), lasts 52 minutes 59 seconds. As the episode begins, the soundtrack of the TV series starts, but no notification of the music is presented in the subtitles. Once the soundtrack finishes and the name 'Game of Thrones' appears on the screen, the translated name into Spanish 'Juegos de Tronos' is pronounced by a speaker. The translated name into Spanish is not reported in the subtitles, however the name of the episode translated into Spanish 'El Camino Real' appears on the screen, while no written translation is reported in the subtitles.

The language selected for the analysis of this episode is Spanish for both the subtitles and the audio.

The subtitles' structure in the second episode is the same as the first one, where the subtitles are presented in one or two- lines, written in lowercase letters in white colour with no background. No sounds, music or voices are ever reported in the subtitles, making them inaccessible to the audience. Even though the source of the noises are not visible to the viewers, no notification of any background sounds is ever rendered explicit on screen. The characters' speech is not transcribed in the subtitles as it is said, but it is a rather adapted version of the original speech. For example, in S1E2/6:46, Tyrion Lannister and his brothers are talking about the possibility of survival of Brandon Stark, who was thought to be close to dying after falling down from a high tower. Tyrion says "El maestre dice que sobrevivirá", which translates to 'The master says that he will survive'. However, in the subtitles it is written "El maestre dice que quizá vivirá", which in English means 'The master says that he will live, maybe'. As it is possible to notice from the translations of the two versions of the same sentence, the meanings of the message are slightly different in each of them. While the character's speech means that Brian will most certainly survive, in the subtitles it seems that the master hopes that Brian will survive the fall, however he is not actually sure of it. In S1E2/8:43, Lady Stark and the Queen are talking, when the Queen says "Estáis en casa. Soy vuestra huésped", which in English it translates with 'You are home. I'm your guest'. However, the subtitles write "Esta es su casa. Yo, su invitada", which in English it translates with 'This is your home. I'm your guest'. The two sentences have very similar meaning, yet they are not the transcribed version of what the characters actually said. Moreover, as in the previous episode, no character is ever identified in the subtitles, but their identity is left for the audience to figure out.

Episode 1 of season 8 of *Game of Thrones* ('Juego de Tronos') is called 'Invernalía', 'Winterfell' in English, and it lasts 50 minutes 54 seconds. The languages available for the audio are English (original) and Spanish, while the languages available for the subtitles are English, Spanish and none. For the analysis of this episode the language chosen for both the subtitles and the audio was Spanish. As for the audience's experience, unlike in Amazon Prime Video, the viewers are not provided with the possibility to customize either the font size, or the colour/background colour of the subtitles. The audience is not allowed to choose the playback speed of the subtitles, as in Netflix. Therefore, if the viewers choose to watch any multimedia production on HBO, they have to conform to the standards offered by this OTT platform.

With regards to the subtitles of episode 1, they have a one- or a two-line structure, they are written in lowercase letters in white colour over no background colour and they are always located at the bottom of the screen in the middle of it. No music, sounds or voices are ever notified to the audience in the subtitles, even when the background noises might be relevant to the understanding of the plot.

Unlike in the first two episodes of season 1 of *Game of Thrones* (*GOT*), when the soundtrack is played in the first minutes of the episode, the name of the TV series is not 'GOT', but 'Juegos de Tronos' (the Spanish translation of the TV series' name). Since the name on screen is changed, there are no voices in the background saying 'Juegos de Tronos' as in the first two episodes of *GOT*. Moreover, the subtitles provided in episode 1 of season 8 are much more accurate than the ones offered in season 1.

In season 8 the subtitles report –almost at all times– the exact words used by the characters on screen, with only a few exceptions due to the length of the words or to the metaphors used in a character's speech. For example, in S8E1/7:14, Lady Sansa Stark tells Daenerys Targaryen, the Queen of the Seven Kingdoms, that the North is hers by using the words "Invernalía es vuestra, Majestad", which in English means 'Winterfell is your, Your Majesty'. However, in the subtitles is written "Invernalía es vuestra, Alteza", which translates to 'Winterfell is your, Your Highness'. The two sentences have a similar meaning, however 'majesty' is a title that refers to kings, emperors, queens and empresses, while 'highness' refers to the members of a royal family, like princes and princesses. Therefore, the intralingual translation used in this sentence is to be considered incorrect, as Daenerys Targaryen is indeed a queen and not a princess. Again, in S8E1/12:18, the subtitles on screen do not correspond to the character's speech. In this case, Tyrion Lannister is talking with Lady Sansa Stark about the incoming of the Lannister's family to the North, when Tyrion Lannister says "No os habrá gustado oír que los Lannister marchaban hacía el Norte", which translates to 'You didn't like to hear that the Lannister were marching North'. However, the subtitles write "Seguro que no os gustó oír que los Lannister marchaban hacía el Norte", which in English means 'Surely, you didn't like to hear that the Lannister were marching North'. The difference between the two versions is almost nonexistent, and yet the subtitles do not report the exact same words used by the character in this scene. Another example can be seen in S8E1/23:48, when Queen Cersei Lannister and Euron Greyjoy are talking about having a baby, when Euron Greyjoy says "Pondré un príncipe en vuestro vientre", which translates to 'I'll put a prince in your womb'. Yet, in the subtitles the words used are "Pondré un príncipe en vuestra barriga",

which in English means ‘I’ll put a prince in your belly’. The meaning of the two sentences is very similar, however once again the subtitles do not correspond to the words used by the character on screen.

Finally, a big difference between the subtitles provided in season 1 and the ones offered in season 8 of *GOT* is that when the characters are talking in a foreign language—or a ‘third language’ (L3)—the format of the subtitles changes and the words on screen are suddenly written in bold, even though they remain in lowercase letters in white colour over no background colour. In season 1, whenever a character would speak a L3, the subtitles would not change format, yet they would be written in yellow over no background colour, instead of white over no background colour. This change of format seems like an evolution in the creation of the subtitling services offered on HBO, which could be contributing to the awareness of the audience of the presence of an L3 during a multimedia production. This new way of identifying a L3 could help those who use subtitles to learn a new language, since they would be aware of the fact that the representation of any language in bold means that that language is an L3 and not the same language spoken in the show.

Episode 2 of season 8 of *GOT* is called ‘Caballero de los Siete Reinos’ (‘Knight of the Seven Kingdoms’) and it lasts 55 minutes 33 seconds. As in the previous episode, also here the name of the TV series was changed in the soundtrack, where it is not more written ‘Game of Thrones’, but its Spanish translation ‘Juegos de Tronos’.

As in any other episode of *GOT*, no music, sounds or voices are ever reported in the subtitles, even though their source origin is not possible to be determined by the audience by simply watching the episode. While on Netflix all background sounds whose source cannot be seen by the viewers are always rendered explicit in the subtitles, on HBO no noises/voices/music are ever reported to the audience. With regards to the subtitles, in this episode they were much more accurate and loyal to the characters’ speech than in any other episode before. For most of the episode, the subtitles present exactly the same words as the ones used by the characters on screen, with the exception of three sentences. The first exception can be found in S8E2/28:49. Tyrion Lannister and Brandon Stark are the last persons remaining in the meeting room, after the other characters left. Tyrion, seeing Brandon in his wheelchair, asks him if he would like to be helped. Probably, Tyrion intended to help him go somewhere, even though it is not mentioned, and he says “¿Quereís ayuda?”, which means ‘Would you like me to help you?’. However, in the subtitles it is written “¿Necesitáis ayuda?”, which in English means ‘Do you need help?’. The two sentences convey slightly different meanings, as the first one indicates a possible wish of Brandon Stark, while the second one indicates a possible necessity from Brandon Stark to be helped. The second exception can be found in S8E2/28:51, as it is the continuation of the conversation between Tyrion Lannister and Brandon Stark. Tyrion says “Fue un extraño viaje”, which translates to ‘It was a strange trip’. However, in the subtitles it is written “Tuvisteis un extraño viaje”, which in English means ‘You had a strange trip’. As it is possible to notice from the two translations, the message of Tyrion’s speech was preserved, yet in the subtitles it seems that only Brandon had a strange trip, while Tyrion meant to say that the trip itself was strange for everyone who took it. The third—and last—exception happens in S8E2/30:14, ‘Gusano Gris’ (‘Grey Worm’) and his lover, Missandei, are talking about possible things that they could do together, after the war that they are about to fight in. ‘Gusano Gris’ asks “Hay algo más que deseas hacer?”, which translates

to ‘Is there anything else you wish to do?’. However, in the subtitles it is written “¿No hay nada más que quieras hacer?”, which in English means ‘Isn’t there anything else you would like to do?’. Although the meaning of the two sentences is quite similar, the subtitles do not report the exact same words used by the character on screen.

Finally, an important detail of episode 2 of season 8 is to be found in minute 0:48:56, when Podrick Paine starts singing a song the night before the great war. As he starts singing, the lyrics of the song are reported in the subtitles in italics and translated into Spanish, although in the episode he sings in English. It is important to note that HBO does not report music, noises or background sounds in the subtitles, and that this was the first and only time that the lyrics of a song were transcribed for the audience to read them. The reason why the lyrics are reported onscreen might be due to the fact that they carry an important message for the episode, whereas other times the songs present in other scenes were not relevant for the understanding of the multimedia content.

Once the subtitling services offered on each of the three OTT platforms were analysed, we were able to draw conclusions regarding the similarities and differences among them. As explained in the subchapter ‘Grey’s Anatomy’ (page 109), the subtitling services provided on Amazon Prime Video include both captions and subtitles, making the audiovisual productions offered on this OTT platform more accessible for PWHI, foreigners learning a new language, seniors and anyone whose access to multimedia content could be restricted due to personal or situational reasons. The viewers can choose among six different languages for the audio, and among six different languages for the subtitles. Finally, only one language—English—is provided for the captions. With regards the quality of the audiovisual content, Amazon Prime Video gives the audience three possible quality standards, called ‘good’, ‘better’ and ‘optimal’. As for the subtitling service, the viewers are allowed to customize the font size, the colour and the background colour of the subtitles/captions. Indeed, the users can choose among five different font sizes and four combinations of subtitles’ colours/background colours. For this comparative analysis, it was decided to keep the default format of the subtitles, written in font size medium, in white colour over no background. The subtitles are always written in lowercase letters.

Once the episode starts, the recommended age of the viewers appears written at the top left corner of the screen and, while in the first season the audience is recommended to be 16 years old or older, in season 16 the users are recommended to be 13 years old or older.

The subtitles have a one- or a two-line structure, they are positioned at the bottom of the screen in the middle of it, and they are never located anywhere else on the screen. No character is ever identified by name or role via subtitles, which could be confusing for the audience. Neither background sounds or music are ever rendered explicit to the viewers either. Finally, as for the accuracy of subtitles, they usually do not correspond to the exact words used by the various characters on screen.

When watching *La casa de papel* (page 119), the viewers can choose among three languages for the audio and between two languages for the audio description. While, for the subtitling services, the audience can choose among four languages for the subtitles and two languages for the captions. With regards to the possibility of customizing the font size,

the colour and the background colour of the subtitling services available on Netflix, the audience is not provided with this option as on Amazon Prime Video. However, Netflix gives the users the chance to choose the playback speed of the subtitles/captions, which can be played at five different speeds (page 118). The possibility of customizing the speed of the subtitling services chosen for a multimedia content offers the audience the chance of reading subtitles at their own pace, making the audiovisuals available on Netflix much more accessible to the viewers. Furthermore, Netflix is the only OTT platform among the three analysed streaming websites that offers audio descriptions to its users, which is another feature that increases the accessibility of the OTT platform.

As for the captions, they have a one- or two-line structure, they are written in lowercase letters and they are usually placed at the bottom of the screen in the middle of it, however they can also be located at the top of the screen in the center. On Netflix captions are not static, but they move according to whether there would be other sentences written on screen or not, like the actors' names at the beginning of each chapter, for example.

With regards to the identification of background sounds, if the source originates from a place or from something not visible to the audience, because maybe it is out of shot or because it is far from the scene, then a short description of the sound will appear in lowercase letters in white colour over no background between squared parenthesis, like for example [teléfono] (which translates to 'phone'). The same happens for the identification of characters on screen, who are only explicitly identified by name—or by the role they have in the TV series— if their faces are not visible to the audience as they speak. When the characters are identified on Netflix, their name/role is written in the subtitles, or captions, in lowercase letters in white colour over no background colour in squared brackets, for example [Tokio]. It is important to point out that in the first season, while most characters were identified as explained above, some characters were always identified by their own colour, like Tokio, the Professor, Artúro or Mónica.

In the fourth and last season of *La casa de papel* no character is identified with a personal colour anymore, since all characters are always identified with white colour over no background colour only in those moments when their faces are not visible to the viewers. With regards to the identification of music, in season one of *La casa de papel* no information regarding the presence of background music is provided to the audience, not even when the soundtrack of the TV series. On the other hand, in season four, the background music is notified to the viewers by type, as a short description of the type of background music is provided to the users in squared brackets, as for example [action music] or [tension music]. Whenever a song is relevant to the plot of an episode, its name and author are specified in the captions, as it happens as well in the case of the soundtrack of *La casa de papel*, ['My life is going on' by Cecilia Krull]. Additionally, in case a song is being sung by one of the characters and it is considered part of the plot, the lyrics of the song are transcribed in the captions, as it happens in episode 2 of season 1 (page 123) and in episode 2 of season 4 (page 126). The only difference between the way the song lyrics are presented on screen in season 1 and in season 4 is that in season 1 each lyric is anticipated by a hashtag symbol (#), while in season 4 the lyrics are written in italics without the hashtag symbol (#).

Finally, it is important to notice that the captions offered on Netflix report exactly the words used by the characters on screen, which makes them more accurate in comparison to the subtitles provided by Amazon Prime Video, where the subtitles do not always correspond to the script.

With regards to *GOT*, available on HBO, the audience can choose between two languages for the audio and between two languages for the subtitles. No captioning option is offered to the users, nor are audio descriptions. As for the subtitles, they have a one- or two-line structure, they are written in lowercase letters in white colour over no background colour and cannot be customised by the viewers. While on Amazon Prime Video the audience is provided with the possibility of customizing the font size, the colour and the background colour of its subtitling services, HBO does not offer its viewers the same possibility. Moreover, while on Netflix the users are given the option of selecting one, or more, audiodescription(s), on HBO there is no such an option. Finally, while on Netflix the audience is also provided with the possibility to choose between five different playback speeds, HBO does not offer this option to its viewers.

With respect to the position of the subtitles on screen, HBO locates the subtitles at the bottom of the screen in the middle of it, and they never change spots throughout the seasons of *GOT*. The same happens on Amazon Prime Video, where the subtitles are also positioned at the bottom of the screen in the center and they are never moved somewhere else on the screen. However, on Netflix the captions can appear at the bottom of the screen in the middle of it or at the top of the screen in the center, if at the bottom of the screen there are words, or sentences, that could impede the correct reading of the captions.

As for the identification of characters on screen, no character has ever been identified by either name, or role, in *GOT*. No matter if the characters' faces are visible to the audience or not while they are talking, their name is never reported in the subtitles, and the same happens in *Grey's Anatomy*. As a matter of fact, the only OTT platform that provides one, or more, identification methods for its characters on screen is Netflix, where the characters can be identified either by name, by role, or by their personal colour. To be more specific, it was discovered that, while in the first season of *La casa de papel* the majority of the characters were identified by name—or role—written in lowercase letters, in white colour over no background colour between squared brackets, some characters had their own colour, like for example Tokio or the Professor. In the last season of *La casa de papel* no character had a personal colour to identify them anymore, since all the characters were identified by name—or role—written in lowercase letters, in white colour over no background colour between squared brackets. It is important to note that, while the characters on Netflix are identified in one or more ways, their name—or role—is not reported on screen everytime they speak. In fact, the characters are only identified if their faces are not visible to the audience when they are speaking in a scene, which is a detail that applies to all four seasons of *La casa de papel*.

In relation to the identification of background sounds, HBO does not provide the audience with any identification of either noises, voices or background sounds, as it happens also on Amazon Prime Video. Netflix is the only OTT platform where the users are notified of the presence of background sounds in its audiovisual contents. The background sounds are

reported in lowercase letters, in white colour over no background colour between squared brackets. As it happens for the identification of characters, also the background sounds are identified on screen only when the audience cannot guess its original source, as for example [gun shots] while on screen there is nobody shooting.

With regards to the identification of music, HBO does not report the presence of background music in its subtitles, even if the music could be relevant for the understanding of the plot of the TV series. It is important to note that in episode 2 of season 8, Podrick Paine sings a song, whose lyrics are reported on screen in italics.

Since the lyrics of Podrick's song were considered to be part of the episode's plot, they were transcribed in Spanish while the character was seen singing in English. On Amazon Prime Video music is never identified in the subtitles either, however on Netflix the audience is provided with a description of the type of music that is playing in the background, as for example [relaxing music]. The identification of music on Netflix is actually only present in season 4 of *La casa de papel*, as in season 1 it is never rendered explicit in the subtitles. Furthermore, in season 4 of *La casa de papel*, if a song is relevant to the understanding of the episode's plot, both the song's and the artist's names will appear in the captions written in lowercase letters in white colour over no background colour between squared brackets, like for example ["My life is going on" by Cecilia Krull]. Finally, if the lyrics of a song are important for a certain scene, then they are also reported in the subtitles, however in this case they will appear in italics.

As for the accuracy of the subtitles, while on season 1 of *GOT* they did not correspond to the words used by the characters on screen, on season 8 they become much more precise. In fact, in episode 2 of season 8, there are only three examples of the subtitles being slightly different from the characters' speech (page 133). The same cannot be said about *Grey's Anatomy*, where the accuracy of its subtitles remains the same throughout the sixteen seasons of the TV series. On Amazon Prime Video the subtitles do not always correspond to the script. Finally, on Netflix the captions use exactly the same words as the ones pronounced by the characters on screen.

Finally, with regards to third languages, HBO used to identify any L3 through the yellow colour in the subtitles. In season 1 of *GOT*, whenever a character would speak a L3, the subtitles would change from white colour over no background colour to yellow colour over no background colour. In season 8 the format of L3 changed to the use of bold subtitles in white colour over no background colour whenever a character would speak a L3. This shows an evolution in the creation of the subtitling services offered on the OTT platform, which aims at better identifying the presence of a L3 in a multimedia content. As for Amazon Prime Video, no L3 are used in *Grey's Anatomy*, or at least they were not used in the four episodes that were analysed in this study. Therefore, the identification of L3 on this platform remains unknown so far. Finally, whenever a character would speak a L3 on Netflix, the captions would change format and be written in italics. However, while on HBO the change of format implied also a change in the colour used for the L3, on Netflix the captions kept their white colour over no background colour.

Below a visual representation of the main differences and similarities present among the three OTT platforms is offered.

Table 42.

Comparative Analysis of *GOT*, *La casa de papel* and *Grey's Anatomy*

	Subtitles/ captions	Language selection	Colour/ background colour	Font size	Music/ background sounds	Lines
Amazon Prime Video	Both	English [CC] + other	Adjustable	Adjustable	-	1, 2, 3
Netflix	Both	English [CC] + Spanish [CC] + other	Not adjustable	Not adjustable	In parenthesis, in lowercase letters	1, 2, 3
HBO	Only subtitles	Various languages	Not adjustable	Not adjustable	-	1 or 2

c) Discussion of Part II

Due to the great importance of streaming platforms in the world—especially during the COVID-19 pandemic—it felt appropriate to analyse the similarities and the differences of the subtitling services offered on some of the most famous online platforms, such as Netflix or HBO.

“With the development of digitisation and the advent of the DVD in the mid-1990s, viewers around the world—including those in dubbing countries—began to be more exposed to subtitled foreign programmes. Since the turn of the millennium, this experience has become much more common with the arrival of streaming and ‘over-the-top’ (OTT) distributors, like Amazon Prime Video and Netflix, that provide viewers access to content by sending the media directly through the internet”. (Zárate, 2021: 05)

“These days we are witnessing a revolution in the field of television, involving broadcasters, media companies, and cable and digital television providers, led by new players –streaming platforms and VOD services , such as Netflix, HBO Go and Amazon Prime. The habits of television viewers are changing, as shown by

various data concerning the media market. They increasingly consume content offered in the subscription model and make decisions to become customers of these platforms.” (Buck & Plothe, 2019; Jaskiernia, 2016). (Siuda 2020: 83).

OTT websites are highly appreciated by the audience, due to the great freedom they provide in terms of time, choices and replay. Nowadays, people can choose whatever TV series, movie or other multimedia production they like and simply play it on any device they own at any chosen time, which makes multimedia access much freer than it used to be. These OTT features led to an increase in streaming online, especially during the pandemic of COVID-19.

“During the unfortunate times of a hitherto unprecedented global pandemic such as COVID-19, these video-on-demand platforms have seen a surge in their viewership. Owing to lockdown and statutory social distancing norms adopted by most countries affected by the pandemic, people have registered higher presence on these platforms”. (Navsangeet Saini, 2020: 4212)

“[...] the Over-the-Top platforms witnessed tremendous growth during the pandemic. The main reason for this growth was the unavailability of other entertainment sources and hence even people who belong to middle age groups also started trying the new innovation. The subscription rate of Amazon, Netflix and other major OTT platforms have increased to more than 60% (Velocity MR study).” (Revati Devaki P. C. and Disesh Babu, 2021: 11307).

In the comparative analysis, the TV series *Game of Thrones* (HBO), *La casa de papel* (Netflix) and *Grey's Anatomy* (Amazon Prime Video) are analysed and compared with the aim of highlighting both the differences and the similarities among the three OTT streaming platforms.

The results obtained from this study show that HBO is the only OTT streaming platform offering subtitles but not captions, while both Amazon Prime Video and Netflix provide the audience with both subtitling and captioning services. HBO offers various subtitled languages to choose from; Amazon Prime Video provides subtitles in many languages and captions in English only; Netflix gives the audience various languages to choose from as subtitling possibilities, but it also provides captions in both English and Spanish. Moreover, Netflix is the only OTT platform that offers audio description as an additional accessibility option.

As far as the audience' experience is concerned, neither Netflix nor HBO allow the viewers to customize the subtitles/captions in terms of colour, background colour and font size, whereas Amazon Prime Video does provide such an option, which improves the accessibility of the subtitling service.

With regards to music, background sounds and other noises, Netflix seems to be the only OTT platform that provides any notification of them in its subtitles, or captions. In the first season of *La casa de papel*, whenever a noise or a background sound is deemed relevant to the comprehension of the scene, a description of them would appear in the subtitles, or captions, written in lowercase letters in parenthesis; while, in the fourth season of the TV

series, everytime there is music playing in the background, Netflix reports it in the captions by writing a description of the type of music present in that scene, as for example [relaxing music].

“[...] the first step when dealing with music in SDH, either with background music or plot music, is to decide if it should be made explicit or not. [...] If the subtitler decides it should be made explicit, it is then time to think about the best ways to convey it into subtitles. When background music is heard, SDH is usually available with one of the following contents: explicitation only of the fact that there is music or explicitation some relevant information about the music, such as author, title of the song, type of music (rock&roll, pop...) or feeling associated with music (romantic, scary...)”. (Tamayo 2017: 04)

In S4 of *La casa de papel*, all background sounds whose original source are invisible to the audience are always rendered explicit to the viewers in squared brackets, like [gun shots] or [helicopters]. Amazon Prime Video and HBO do not offer such a service. This may be due to the translators' fear of redundancy,

“[...] I am of the opinion that the mood of the piece is expressed more effectively through the actions and movement alone. A textual visual representation of the music would detract from the enjoyment of the action on stage. In this case, the cognitive effort required to read the caption(s) would not be justified, as the information provided in writing would be redundant”. (Zárate, 2021: 76)

“[...] the subtitler must be aware of how redundancy, or the lack of it, can be understood by the target audience. Similarly to the acoustic channel, the first decision to make is whether what can be seen in the image has to be conveyed into subtitles. This task, however, is not easy, as the subtitler does not normally share the culture and background of his/her target audience.” (Tamayo, 2017b: 06)

It is worth noting that, while in S1 of *GOT* music is never reported in the subtitles, in the 16th season of the TV series, one of the characters sings a song before the great war that is about to start and, when he sings, the lyrics of the song appear in the subtitles in italics. That is the only time music is reported in the subtitles on HBO.

As for the identification of a L3 in each TV series, the guidelines used by Amazon Prime Video regarding this topic remain unknown, as no L3 is used in the four episodes analysed in this study. While, on Netflix the presence of a L3 is reported on screen through a change of the captions' format, while no interlingual translation is provided to the viewers. Whenever a character would speak a L3 in *La casa de papel*, the captions would appear in lowercase letters in white colour over no background colour, however they would be written in italics. Finally, in S1 of *GOT*, the identification of a L3 would happen through an interlingual translation of the L3 and through the use of the colour yellow instead of the usual colour white, which means that the subtitles would appear on screen written in lowercase letters in yellow colour over no background colour. Nevertheless, in S16 of

GOT, everytime a character would speak in a third language, the subtitles would report the content of the character's speech translated into Spanish and they would appear in white colour over no background colour, however their format would change from plain to bold.

“If multilingualism plays an important diegetic role in a film, affecting the understanding of the narrative, and cannot be inferred from other sources such as the images, then it will most probably have to be translated. By the same token, if it plays a minor, anecdotal role, then it may be left untranslated.” (Szarkowska and Boczkowska, 2020: 02)

With reference to the number of lines allowed in the subtitling services provided by the three OTT streaming platforms, Amazon Prime Video and Netflix allow up to three lines, while HBO only tolerates two lines of subtitles as maximum. The difference in the number of lines allowed on each of the three OTT platforms could be due to the nature of their subtitling services, i.e., to whether they offer subtitles, captions or both. As Zárte (2021: 43) affirms “Dialogues are segmented into chunks of text whose extent is constrained by the maximum number of characters available per line and by the maximum number of lines available per subtitle or caption. Generally speaking, there is much more flexibility in captioning than in subtitling”.

The results obtained in the comparative analysis seem to highlight quite a few similarities and differences among the subtitling services offered on the three TV series available on the OTT platforms analysed. However, as to which one of them is the most accessible streaming website, on the basis of the episodes analysed in the comparative analysis of *GOT*, *La casa de papel* and *Grey's Anatomy*, it appears that Amazon Prime Video and Netflix are the two most qualified candidates, leaving HBO as the least accessible OTT platform. While the former two provide both subtitling and captioning services, the latter only offers subtitles. Therefore, HBO is only capable to offer a subtitling service of the verbal elements of the multimedia content available on its streaming platform, without all the extra non-verbal elements—such as music, background sounds, noises, etc.—vital for the subtitling service to become accessible to the d/Deaf as well. As Zárte (2021: 05) affirms “As SDH subtitlers, we know that a translation of only the verbal elements meets the requirements of our audience halfway and therefore it is not completely satisfactory”. She continues by saying, “Besides subtitling verbal information—dialogue lines, lyrics and text present on screen in a foreign language (in interlingual SDH)—relevant nonverbal information is also included, such as intonation, accents (if they are significant) and speaker identification”. Moreover, Amazon Prime Video gives the audience the possibility of customizing the subtitles/captions in terms of colour, background colour and size, which represents a great opportunity for the viewers to make the changes they deem fit to their own needs; and while Netflix does not provide such an option, it does offer audio description of its multimedia content, and in more than in one language, which suggest that people with visual impairments are still allowed to enjoy their favourite media production.

It is important to note that this comparative analysis did not focus on the overall accessibility of the three OTT platforms mentioned above, since only three multimedia

productions were analysed here, of which only four episodes per TV series. Indeed, to be able to declare which OTT platform among Netflix, Amazon Prime Video and HBO is the most accessible one at the moment, a thorough analysis of each streaming platform would be required. Each online platform would need to be examined, starting from the accessibility of the website itself. Furthermore, the presence, or the lack thereof, of other relevant accessibility services, like Audiodescription (AD) or sign language translation, should be also taken into consideration. Consequently, the comparative analysis presented here is thus limited and further research on this topic is required.

Part II was represented by the comparative analysis of the subtitling services provided by three famous OTT platforms and it focused on the differences and the similarities present among the subtitles/captions offered on each platform. An analysis of the above-mentioned subtitling services was carried out to discover whether they would be following the guidelines of the Spanish Standard UNE 153010:2012 or not. This study did not pay attention to the quality of the subtitling services provided on Netflix, Amazon Prime Video and HBO, which represents an extremely relevant feature of these services. Therefore, in the future, it would be interesting to run another comparative analysis of the subtitles/captions available on these OTT platforms by focusing on the quality of the subtitling services, and by comparing it to the quality of the subtitling services provided by the National Digital Television.

4.3 Part III

a) Introduction

Once the comparative analysis of the subtitling services provided on *GOT* (HBO), *Grey's Anatomy* (Amazon Prime Video) and *La casa de papel* (Netflix) was completed, and the differences and the similarities present among the three subtitling services were highlighted, it was decided to move on to Part III: a second survey focusing on *Inclusive Subtitling*, which contains two main parts, i.e., the 'Personal Data Section' and the 'Characteristics of Subtitling Services available on the Spanish Digital Television'. While in the first survey participants were asked to answer some questions regarding their personal data, watch some videos and then answer some general questions regarding the subtitling services available in Spain, in this survey participants were asked to answer a number of questions regarding the subtitling services available on the Spanish Digital Television more in detail. However, that was not the only difference between the two surveys. While the first one lasted 20-30 minutes, the second one only required five minutes to complete, which perhaps contributes to the attractiveness of the study itself. Moreover—while in the first survey the written description of the study was translated from Spanish into Catalan Sign Language by Professor Delfina Aliaga Emeterio of Pompeu Fabra University (Barcelona)—in the second survey the written description of the study was performed by the PhD candidate Roberta Cepak, who translated the text herself from Spanish into Catalan Sign Language.

The questions of the survey were based on the results from the two previous phases of this research project, as the results retrieved from Part I and Part II led to further questions. The inquiries regarding the personal data of the participants were inspired by the first survey, and the second part of the study was created on the basis of the data obtained by both Part I and Part II. As a matter of fact, in the section ‘Research Goal’ it can be noticed how each of the three phases are individual studies whose results were meant to contribute to the following step of this PhD project, no matter the outcomes (page 19).

The tool chosen for the design and analysis of the survey was once again Google Drive Questionnaires, since it was quite easy to distribute. Like in Part I, the survey was distributed all around Spain both via email and social media. The Spanish Associations for the DHH played a great role in reaching the Deaf Community, who was not contacted personally, but informed about the survey through their associations. Facebook resulted in tremendous help for advertising the study, which was rendered public through a Facebook post with a short description of the survey’s content and goals and a direct link to the study. A great share of the people participating in the study were informed of the survey via Facebook.

The second survey consisted of two main parts: i) ‘Personal Details’ and ii) ‘Characteristics of Subtitling Services available on the Spanish Digital Television’.

The first part of the survey consisted of a set of eleven background questions: age, sex, mother tongue, common way of communication, education, employment, type of deafness (if the case), age when it occurred, type of hearing device (if the case), daily time they usually spend watching TV and most preferred language(s) to enjoy multimedia content. As in Part I, the background questions asked at the beginning of this survey were inspired by the ones used in *The reception of subtitles for the deaf and hard of hearing in Europe* (2015). In the second part of the survey respondents were asked to answer ten questions regarding the features of subtitling services present on Spanish TV as well as personal preferences in regards to subtitling services themselves: personal use (or no use) of subtitles/captions when watching TV, evaluation of subtitling services offered on the Spanish Digital Television (if used), personal opinion on the size of the subtitles/captions, personal opinion regarding the possibility of customizing size/color/speed of subtitles/captions, preferred characters’ identification arrangement, sounds and noises that should (or should not) be identified, personal opinion regarding the possibility of consulting vocabulary/summary of any television program.

A total of 125 participants took part in the study, including 35 prelingual d/Deaf, 9 postlingual d/Deaf, 5 hard-of-hearing and 76 hearers. Like in Part I, also in this second survey the main focus was placed on involving both DHH respondents and hearers, since the audience of the Spanish Digital Television in Spain is widely heterogeneous and no distinction in SDH is made by the various TV channels. It is important to specify that the target audience of SDH is the Deaf Community, though it should be kept in mind that SDH is a service that benefits a much wider group of people (Romero-Fresco, 2018: 189). For this reason, it was decided to ask the point of view of hearers and DHH respondents both with regards to the subtitling services provided by the Spanish Digital Television.

As in Part I, also in Part III the survey was advertised through a descriptive email addressed to Spanish Deaf Associations and the publication of the survey’s link. Similar to Part I,

many Deaf Associations were contacted directly, although only two agreed to help in the distribution process in Catalonia and in the rest of Spain, among which FESOCA. Once the two associations decided to participate in the study, they could decide whether to distribute the study among their members or not. Thus, respondents did not need to be contacted directly, which speeded up the process and ensured anonymity. Professors Delfina Aliaga Emeterio and Gemma Barberà Altimira agreed to advertise my first survey on the LSC-Lab website, which is part of the UPF online platform. The survey was also advertised on Facebook, where a descriptive post—as well as the link—of the inquiry were published, and through the help of the Pompeu Fabra University (UPF). Indeed, also in the last phase of this research study it was decided to use Facebook as the social media of choice to advertise the survey, given the possibility of posting a descriptive link of the study in many Facebook pages aimed at reaching specific groups of people, like University Facebook groups, or groups of d/Deaf people who enjoy similar activities ('Sordos de España', 'Cocina Sorda' etc.). Given the limited number of Deaf Associations that agreed to participate in this survey, it is believed that the majority of DHH respondents agreed to take part in the study after seeing a description of the survey on Facebook.

Once respondents agreed to take part in the study, they were provided, in the first part of the survey, with a written presentation of the study, which included explanations regarding the nature and structure of the project. With the help of Professor Delfina Aliaga Emeterio (UPF), I was able to provide a LSC translation of the instructions to make sure that the survey's content was properly understood by all participants. Although no LSE interpretation of the description of the survey or SL interpretation of the questions present in the survey was offered to the participants, anyone who wished to take part in the study could send me an email asking for an explanation regarding the questions of the surveys, or any other matter related to the study, at any time.

Prior to the test, all respondents were asked to confirm their understanding of the study's nature and to agree to take part in it freely. As in Part I, also in Part III respondents were not asked to sign any Informed Consent form before starting the survey, as the UPF ethics committee (CIREP) understands that in the case of a research project that can be conducted without identification of participants, ethics obligations can be fulfilled by presenting a copy of the Informed Consent to participants that provides all the relevant information of the project and the commitment of the principal investigator to give the Informed Consent and seek informal (not recorded) consent from the participants.

b) Personal data

As in the first survey, there were five age groups: i) 18 to 30, ii) 31 to 45, iii) 46 to 55, iv) 56 to 65, and v) over 65. Fifty-eight people from group (i) responded to the survey, which represents 46.5% of the total; thirty-four people from group (ii), twenty-one from group (iii); ten people from group (iv); and only two persons over 65. Among all participants, 64% were women, 32.8% were men and 3.2% preferred not to declare their sex.

Respondents' mother tongue yielded the following percentage results: 66.4% Spanish, 23.2% Catalan, 12.8% LSE, 20% LSC, 13.6% other language/s. Regarding the language most often used by participants, the following percentages were yielded: 84% Spanish, 31.2% Catalan, 16% LSE, 21.6% LSC, 10.4% lipreading, 5.6% for a combination of LSE and lip reading as main means of communication, 8% combine LSC and lip reading, while the remaining 18.4% chose the option 'other ways of communication'. As for education, 2.4% of the respondents had primary school, 11.2% secondary education, 24.8% professional education, 57.6% university studies, and 4% 'other education'.

Percentages for respondents' current working status: 51.2% employed, 4% retired, 8.8% unemployed, 16.8% working and studying, 16% studying, and the remaining 3.2% chose 'other current working status'. Percentage results for the participants' hearing status yielded: 60.8% hearers, 28% prelingual d/Deaf, 7.2% postlingual d/Deaf and 4% hard-of-hearing. The age of hearing provided these percentage results: 62.4% hearers, 23.2% hearing impaired since their birth, 4% hearing impaired before two years of age, 7.2% hearing impaired between 2-4 years of age, 1.6% hearing impaired between 5-19 years of age, 0.8% hearing impaired between 20-29 years of age and 0.8% hearing impaired between 30-49 years of age. It is worth noting that none of the respondents got deaf at an advanced age, it is not surprising, though, because only two respondents were older than 65. As in Part I, it would also be interesting to see if the results would be the same with a higher number of old people taking part in the study. The use of hearing aid or cochlear implant was inquired: 78.4% of the respondents do not have any hearing aid, whereas 17.6% have a hearing aid, 2.4% use a cochlear implant and 1.6% have both aids.

The following item addressed the amount of time respondents spend in front of the television per day with the following percentages: 32.8% no more than an hour per day, 35.2% 1-2 hours per day, 21.6% 2-3 hours per day, and 10.4% more than 3 hours per day. As can be inferred from these percentages, most of the respondents do not spend much time watching TV. Finally, the last question regards the language(s) volunteers usually select to enjoy multimedia content, which provided these percentages results: 86.2% Spanish, 33.3% Catalan, 31.7% original version, 28.5% English, 13.8% other language(s).

c) Characteristics of subtitling services available on the Spanish Digital Television

As mentioned above (page 143), the survey was divided into two parts, one focused on the personal data of the volunteers and the second one concerning the characteristics of the subtitling services offered on the Spanish Digital Television. The results obtained in the first part of the survey are explained in the previous sub-chapter called '4.3. a) Introduction' (page 142), while here the results of the second part of the survey are discussed.

This phase was aimed at discovering how many people in the (selected) Spanish Audience make use of the subtitling services offered by the Spanish Digital Television when watching multimedia content. Indeed, we thought it was extremely helpful to determine the percentage of the public spectators, who use the subtitling services offered, as well as to find out the percentage of both the DHH people and the hearers in the audience. 55.3% claimed to use subtitles/captions, 13% declared not to use any subtitles/captions and the remaining 31.7% acknowledged to sometimes use subtitles/captions.

The results obtained by calculating the percentage of DHH participants in each answer are the following: 67.6% of all the affirmative answers were DHH respondents, while 32.3% were hearers; 100% of the negative respondents were hearers, which means that 0% of the collected data belonged to the DHH participants; 7.7% of the ‘sometimes’ option were DHH respondents, meaning that the majority (92.3%) of the volunteers who chose this option were hearers.

As shown in Table 43, a great majority of DHH respondents declared to use subtitling services when watching TV, which is in line with the expectations we had for these results. Most hearers affirmed to use subtitling services only sometimes, although a fair share of hearers also stated to use them regularly.

Table 43.

Use of subtitling services when watching TV

	Yes	No	Sometimes
All Participants	55.3%	13%	31.7%
DHH	67.6%	0%	7.7%
Hearers	32.3%	100%	92.3%

The second issue we wanted to uncover was the reason for using subtitling services when watching multimedia content. Indeed, many can be the reasons for the people in the audience to rely on subtitles/captions when enjoying an audiovisual production, such as accessibility reasons due to hearing and/or visual disabilities, learning a new language or simply environmental reasons that do not allow the audience to follow the content otherwise.

As Romero-Fresco (2018) correctly reminds us, the audience is not a homogeneous group of people, but it consists of DHH people, people with cognitive impairments, people with learning impairments, people with more than impairment, foreigners, children, seniors, but also people who cannot properly access a multimedia production due to personal or environmental situation, or because the sound is not available.

Only 34.1% of participants mentioned that they use subtitles/captions for accessibility reasons, which is reflected in the DHH and hearers shares of this answer: 97.6% were DHH respondents and only 2.3% hearers. 28.5% of participants confirmed that they use subtitles to help them comprehend the language(s) used in the multimedia production. It is interesting to highlight that this answer was chosen mainly by hearers (94.2%), while only

5.7% were DHH participants, which suggests that hearers display a greater difficulty in understanding the language(s) used in audiovisual content. In third position we find the option ‘L2 learning’, which yielded a percentage of 17.1%, of which 80.9% were hearers and 19.1% were DHH. Although it could be assumed that DHH people use subtitling services only to access the multimedia content, from this answer we can see that they could be also interested in learning another language. Finally, 20.3% of all participants affirmed to use subtitles/captions for other reasons than the ones presented in the survey, an option chosen only by hearers (100%).

Table 44.

Reasons for using subtitling services

	Accessibility	Language comprehension	L2 learning	Other
All Participants	34.1%	28.5%	17.1%	20.3%
DHH	97.6%	5.7%	19.1%	0%
Hearers	2.3%	94.2%	80.9%	100%

As Díaz-Cintas (2003) affirms “Subtitles provide access to audiovisual contents and are used by a wide group of viewers who require this service either because of hearing disabilities or to gain access to contents in a foreign language that they do not know or master”. Many other authors share his opinion, like Neves (2007), Bartoll and Martínez Tejerina (2008), Romero-Fresco (2018), Bolaños-García-Escribano et al. (2021), Zárata (2021) among others.

Sometimes the people in the audience cannot distinguish the text presented on the screen, due to the font size of the subtitles/captions provided on television, which is why our next question concerned the font size of the subtitling services offered on the Spanish Digital Television at the moment.

An important number of participants (48%) declared the subtitles’ font size to be adequate, but this figure is far from expressing general agreement among respondents. It is interesting to highlight, though, that this option was selected mainly by the DHH respondents (60% and hearers 40%). 34% of participants, mainly hearers (90.6%) indicated that they are not sure about the adequacy of the subtitles’ font size. These results seem to suggest an insecurity in the hearers regarding the size of subtitles, which is otherwise correct in the DHH respondents’ opinion. A smaller percentage of participants (14.4%) thought that the subtitles’ size was too small, a result split almost evenly between DHH respondents (44.4%) and hearers (55.5%). While 3.2% declared it to be too big, an option selected mainly by hearers (75%), whereas the DHH respondents were only a modest part (25%). This is not surprising if we take into account that most hearers do not need the subtitles to follow the audiovisual piece, and the bigger the subtitles the more space on the screen they take up.

Table 45.

Size of subtitling services in Spain

	Adequate	Too big	Too small	Not sure
All Participants	48%	3.2%	14.4%	34.4%
DHH	60%	25%	44.4%	9.3%
Hearers	40%	75%	55.5%	90.6%

Hence—considering that the subtitles’ font size could represent a problem for some of the people in the audience—we decided to ask our participants their opinion on the possibility of customizing the font size of the subtitling services currently offered on the Spanish Digital Television through the use of their own remote control. With regards to the font size of the subtitling services offered by the Spanish Digital Television, it seems important to note that the (selected) Spanish Audience of Part I declared the font size and colours to be the subtitling features that they wished would improve in the future (page 94).

UNE 153010:2012 (paragraph 4.7, page 9) declares that “Los caracteres de los subtítulos deben tener un tamaño mínimo de forma que sean legibles por personas con visión normal, desde una distancia de 2,5 metros, cuando los subtítulos se muestran en una pantalla de formato 4:3 y 38 cm (15 pulgadas) de diagonal” (“Subtitle characters must have a minimum size so that they are readable by people with normal vision, from a distance of 2.5 meters, when subtitles are displayed on a 4:3 and 38 cm (15 inches) diagonal format screen”). However, not all the people in the Spanish Audience have a ‘normal vision’, which renders the possibility of adjusting the font size of the subtitling services offered on the Spanish Digital Television a matter of great importance. This idea arose thanks to OTT platforms like Amazon Prime Video, where the audience can customize the subtitles/captions in terms of colour, background colour, font size and language.

82.4% affirmed to like this option. What is surprising is that the majority of the respondents who selected it were hearers (61.1%), while only 38.8% were DHH participants. We were assuming that the possibility of customizing the font size of the subtitles/captions would have been equally successful between DHH and hearers, but that was not the case. 12.8% of all participants declared not to be sure whether to like or to dislike the possibility of customizing the subtitles/captions’ font size, an opinion shared mostly by hearers (75%), while DHH participants were only a small part (25%). Finally, 4.8% of all respondents claimed to dislike the idea of customizing the font size, an opinion shared mainly by DHH participants (83.3%), whereas only 16.6% were hearers. The data retrieved in this question seem to suggest that the Spanish Audience would appreciate the possibility of customizing the font size of the subtitling services offered by the Spanish Digital Television.

Table 46.

Possibility of customizing the font size of the subtitling services

	Like	Dislike	Not sure
All Participants	82.4%	4.8%	12.8%
DHH	38.8%	83.3%	25%
Hearers	61.1%	16.6%	75%

Next, we inquired the participants' opinion on the possibility of customizing the colour of the subtitling services currently offered on the Spanish Digital Television through the use of their own remote control. The standard UNE 153010:2012 (paragraph 6.1, page 9) states that "Las técnicas para identificación de personajes deben elegirse según el siguiente orden de prioridad: 1. Uso de color; 2. Uso de etiquetas; 3. Uso de guiones" ("Character identification techniques should be chosen in the following order of priority: 1. use of color; 2. Use of labels; 3. Use of dashes"). Over the years, the Spanish Audience has been used to the characters' identification through colour, which makes the customization of the colours used in the subtitling services offered on the Spanish Digital Television a very important issue. Since some OTT platforms, like Amazon Prime Video, allow the audience to customize the subtitles/captions they offer on their platform, we thought it was time to ask the Spanish Audience whether they would like to receive the same possibility also on the Digital Television. Moreover, the data collected in Part I highlighted the desire of the (selected) Spanish Audience to see an improvement in the font size and colour of the subtitling services offered by the Spanish Digital Television (page 94).

The data retrieved from this question show similar results compared to the previous issue. 76.8% affirmed that they would like the possibility of customizing the subtitling services offered on the Spanish Digital Television. As in the previous question, most of the participants who declared to like this option were hearers (60.4%), while only 39.5% were DHH respondents. Overall, only 8.8% of all participants claimed not to like the idea of customizing the subtitles' colours, an opinion of mainly hearers (72.7%) with only a very low DHH percentage (27.2%). Finally, 14.4% of all respondents said not to be sure whether to like or to dislike this option. In comparison with the data retrieved in the previous question, the DHH share that chose the 'not sure' answer this time is much higher (44.4%). The percentage results yielded in this question seem to suggest a greater interest in customizing the subtitles' colour than in the personalization of the subtitles font size.

Table 47.

Possibility of customizing the colour of the subtitling services

	Like	Dislike	Not sure
All Participants	76.8%	8.8%	14.4%
DHH	39.5%	27.2%	44.4%
Hearers	60.4%	72.7%	55.5%

The following matter concerns the subtitling speed on the Spanish Digital Television. The optimum subtitling speed has not yet been established, and that is why further research is still required.

“As early deafness can be a predictor of poor reading, it has been advocated that speed in SDH be slow and that text be edited down. Yet, other studies demonstrated no benefit of slowing down subtitles, showing that edited subtitles contain reduced text and fewer cohesive links and, as such, may be difficult to process”. (Szarkowska, Gerber-Morón, 2018: 03)

Some countries such as France, Spain and the UK

“[...] have developed official standards or regulations for closed captioning and subtitling for the deaf and hard of hearing that include speed indications. [...] In France, subtitles for the deaf and hard of hearing accompanying pre-recorded materials should feature subtitling speeds between 12 and 15 cps with a 20% tolerance (CSA,2011), while the Spanish norm (AENOR,2012) sets the maximum speed at 15 cps and Ofcom (2017) considers subtitles of up to 180 wpm to be acceptable”. (Fresno and Sepielak, 2020: 02)

Even though Spain already established official standards with regards to the subtitling speed, as Szarkowska and Gerber-Morón (2018: 01) rightfully remind us “People watch subtitled audiovisual materials more than ever before. With the proliferation of subtitled content, we are also witnessing an increase in subtitle speeds.” That is why we decided to ask our participants whether they would appreciate being in control of the subtitling speed of the subtitling services currently offered on the Spanish Digital Television through the use of their own remote control in order to adapt the subtitling speed to their own needs and wishes.

Although 58.4% affirmed to like this option, the percentage results yielded in the affirmative answer are not as high as in the two previous questions. While the percentages of hearers and DHH share remained quite similar compared to the previous percentage results (60.2% hearers and 39.7% DHH), it is interesting to highlight the percentage results

obtained in the ‘dislike’ option (23.2%), which have never been this high. Even though it was assumed that DHH share would have appreciated the idea of customizing the subtitling speed, results show that the Deaf Community is divided on this topic. Indeed, it seems that the DHH respondents are almost equally split among the three options. Finally, the ‘non sure’ option also retrieved a higher percentage result than in the previous two questions. 18.4% of all respondents agreed on not being sure whether they would like or dislike the possibility of customizing the speed of the subtitling services, an option chosen mainly by hearers (65.2%), however by many DHH participants (34.7%) too.

Table 48.

Possibility of customizing the speed of the subtitling services

	Like	Dislike	Not sure
All Participants	58.4%	23.2%	18.4%
DHH	39.7%	41.3%	34.7%
Hearers	60.2%	58.6%	65.2%

The next question concerned the participants’ preferences regarding the identification method of the various characters of multimedia contents. As mentioned before, the UNE 153010:2012 (paragraph 6.1, page 10) establishes as first identification method the use of colours, which is followed by the use of tags—i.e., the characters’ names, their job or their age: for example, ‘the old lady’—and finally by the use of dash. We decided to ask our participants which one would be their favourite identification method in order to discover whether the methods already in use should be modified or maintained as they are.

48.8% affirmed to prefer the use of colours, a result shared almost evenly by both the DHH respondents (52.4%) and the hearers (47.5%). As the Spanish Audience is already used to this identification method, it does not surprise us to see ‘colours’ as the preferred choice. The second most successful option was the use of names (24.8%), which was mostly picked by hearers (70.9%), while only a small share was represented by DHH participants (29%). In third position we found ‘without ID’ (13.6%), an option mainly preferred by hearers (70.5%), and only by a small share of the DHH audience (29.4%). Since hearers can rely on their ability to hear the various characters speaking on the screen, they do not necessarily need the characters to be identified at all, which explains why some hearers chose the ‘without ID’ option, however it does not explain the reasons for the DHH audience to choose this method. The fourth preferred choice was the use of dash (9.6%), an option liked mostly by hearers (75%), followed by a small percentage of DHH participants (25%). Finally, 3.2% was given to the option ‘other’, an identification method chosen only by hearers (100%).

The same question was asked also in the first survey of this PhD study (see Table 36 of Part I) and the results obtained from both questions suggest a preference for colours as identification method for the various characters on screen. Indeed, while in Part I the (selected) Spanish Audience affirmed that the characters on screen should be identified

through the use of colour (52.9%), through the use of a dash (18.3%) or through the use of tags (17.3%), in Part III the (selected) Spanish Audience seemed to prefer the use of colour (48.8%), the use of names (24.8%) or with no identification at all (13.6%).

Table 49.

Characters' identification method

	Colours	Names	Dash	Without ID	Other
All Participants	48.8%	24.8%	9.6%	13.6%	3.2%
DHH	52.4%	29%	25%	29.4%	0%
Hearers	47.5%	70.9%	75%	70.5%	100%

All those participants who in the previous question selected the option 'other' were asked to explain their choice by writing their personal suggestions on how to best identify the characters of multimedia content. Their opinions are reported in the Annexes Section.

Next, we inquired the participants' preferences on which background sounds should be identified via subtitles/captions. In the UNE 153010:2012 (paragraph 7.1, page 13) it is written that "All relevant background sounds should be reported in the subtitles". However, sometimes it may be difficult to determine what is relevant and what is not. For example, someone could consider it a great help to have the lyrics of a song reported in the subtitles in order to understand the development of a scene, while others could not find that relevant at all. Therefore, we asked our participants to declare their personal opinion on the matter, to discover which background sounds they would like to have reported in the subtitling services of the Spanish Digital Television.

73.6% affirmed that all background sounds should be identified. Although the majority of the people choosing this option were hearers (59.7%), the DHH respondents of this answer represented a large share of the total amount (40.2%). In second place, 14.4% of all participants chose 'noises', an option again preferred mostly by hearers (66.6%), while the DHH participants were only a small part (33.3%). In third position, 12.8% of all respondents declared that only voices should be identified, an opinion shared by a large majority of hearers (62.5%), and by only a small DHH group (37.5%). The option 'nothing' received the 9.6% of all votes, of which 75% were DHH participants and only 25% were hearers. Finally, 8.8% of all respondents chose the option 'music', which was preferred by mainly hearers (63.6%), and by a small DHH share (36.3%).

It is worth mentioning that the percentages displayed in Table 8 correspond to the percentage results obtained on Google Drive Questionnaires, however the total sum of the shares adds up to more than 100%. That is due to the fact that in this question the participants could choose more than one television program as their answer, which means that each answer should be taken into account individually.

From these data it seems clear that the vast majority of the Spanish Audience would appreciate all background sounds, music, voices and noises to be reported in the subtitles

offered on TV, which is a wish that the volunteers of Part I of this PhD project already expressed (page 98). Indeed, the majority of the (selected) Spanish Audience taking part in the first survey showed great interest in the acknowledgement of all background sounds in the subtitling services provided on the National Television. Moreover, from the results obtained in the comparative analysis of the subtitling services offered by Netflix, Amazon Prime Video and HBO, it turned out that Netflix is the only OTT platform whose captions provide the viewers with information about background sounds, noises, voices and even music, making it the most accessible streaming platform among the three of them.

Table 50.

Identification of background sounds					
	Everything	Noises	Voices	Music	Nothing
All Participants	73.6%	14.4%	12.8%	8.8%	9.6%
DHH	40.2%	33.3%	37.5%	36.3%	75%
Hearers	59.7%	66.6%	62.5%	63.6%	25%

The following question inquired the participants' preferences on the chance of consulting the vocabulary of each television program through Teletext, in case that would be possible. Indeed, we wanted to ask the Spanish Audience whether they would appreciate the creation, and consequence accessibility to, a Teletext page available on the Spanish Digital Television. On this page, metaphors, sayings and vocabulary explanations would be reported for the audience to access it and read it before, during or even after watching a multimedia production.

The Spanish Audience seemed divided on this topic, which was liked by a slight majority of all respondents (45.6%), it was considered a possible likeable by almost the same percentage of people (39.2%) and it was not appreciated at all by a very small share of participants (15.2%). The respondents who claimed to like the idea of a 'Vocabulary Page' were divided, 56.1% were hearers and 43.8% were DHH participants. The respondents who claimed to maybe like this option were mostly hearers (65.3%), while the DHH share were only a small part (34.7%). Finally, the majority of people who did not like this option were hearers (63.1%), with only a small DHH share (36.8%).

From the data retrieved in this question it is possible to notice that a slight majority of the (selected) Spanish Audience would be interested in the creation of a possible 'Vocabulary Page' that they could consult before, during or after watching a multimedia production on TV, while a big share of the remaining participants affirmed that they may be interested in it as well. Therefore, it could be worth investigating whether the 'Vocabulary Page' could represent a useful tool for improving the *access to enjoyment* of the audience or not. Such a page could become a great addition to the Teletext pages of any National Digital Television, however it could be adopted by VOD platforms too. Indeed, it would be interesting to discover whether the users of online streaming platforms would like websites such as Netflix, Amazon Prime Video or HBO to add a 'Vocabulary Button', which would

provide them with information regarding the meaning of words, metaphors and expressions used in any multimedia production available on their platform. Amazon Prime Video already offers its users extra information, like for example the list of all the songs and actors present in its audiovisual content. This information can be accessed by clicking on the button ‘X-Ray See All’ located at the top left corner of the screen, which allows the audience to access the buttons ‘cast’ and ‘music’ (page 116), and maybe in the future it could lead the viewers to the button ‘vocabulary’ as well.

In Part I, we asked the (selected) Spanish Audience if they would be interested in the creation of a new accessible TV page called ‘Vocabulary’, however in the first survey the opinions were divided. Only 52.9% of all volunteers affirmed that they would certainly use the ‘Vocabulary page’, however a share of volunteers (47.1%) stated that they would not be interested in it. As it is possible to notice, in this survey the volunteers were more inclined to try out the ‘Vocabulary page’ in comparison to the participants of Part I of this PhD project. Therefore, it could be assumed that the audience is becoming more open to new experiences regarding the access to information via TV, and maybe even via VOD platforms.

Table 51.

Vocabulary consultation of television programs

	Like	Dislike	Not sure
All Participants	45.6%	15.2%	39.2%
DHH	43.8%	36.8%	34.7%
Hearers	56.1%	63.1%	65.3%

The last question of this survey inquired the participants’ opinion on the chance of consulting the plot of each television program through Teletext, in case that would be possible. Nowadays people watch more and more audiovisual productions, especially on streaming platforms, where it is not uncommon to find short descriptions of each multimedia product offered on the website. Therefore, we decided to ask our participants their personal opinion regarding the possibility of reading the plot of each programme available on the Spanish Digital Television before, during or after watching it.

62.1% declared to like this option. The majority of the respondents who replied affirmatively were hearers (63.6%), while the DHH group represented a smaller share (36.3%). 20.2% of all participants claimed to maybe appreciate the possibility of checking the plot of the audiovisual productions on their TV, an opinion that was shared almost equally by hearers (52%) and the Deaf Community (48%). Finally, 17.7% of all respondents affirmed not to like this option, an opinion mainly shared by hearers (59%), and only by a small share of the DHH public (40.9%).

The data retrieved in this question suggest a great interest of the Spanish Audience in the possibility of reading the plot of the programmes available on the Spanish Digital Television.

Table 52.

Plot consultation of television programs			
	Like	Dislike	Not sure
All Participants	62.1%	17.7%	20.2%
DHH	36.3%	40.9%	48%
Hearers	63.6%	59%	52%

d) Discussion of Part III

The first item inquired the participants whether they made use—or not—of the subtitling services offered on the Spanish Digital Television. Most participants confirmed to use them, a very limited percentage of volunteers declared not to use any subtitles, while a great number of respondents acknowledged to use them sometimes. As it could have been expected, most of the affirmative answers were DHH respondents, all the negative responses were hearers, while the option ‘sometimes’ was chosen mainly by hearers. As Zárte (2021: 05) declares “In dubbing countries—such as Austria, France, Germany, Italy and Spain—d/Deaf and hard of hearing viewers rely nearly exclusively on the provision of SDH, which is normally performed intralingually from the dubbed version of the programme”.

The second question referred to the reasons for the use of subtitling services while enjoying multimedia content. ‘Accessibility’ was chosen as the primary reason for their use, ‘language(s) comprehension’ was the second most selected option, ‘L2 learning’ was put in third position and finally ‘other reason’ was left as fourth choice. Unsurprisingly, ‘accessibility reasons’ was selected mostly by DHH volunteers, thus proving wrong once again hypothesis 1 (page 16), whereas it is worth noting that the majority of people who chose ‘language(s) comprehension’ were hearers. The option ‘L2 learning’ was also selected mostly by hearers, although some DHH respondents did select this option as well. Finally, ‘other reasons’ was chosen by hearers only.

Next, the font size of the subtitling services was inquired. Most participants declared it to be adequate, an opinion shared mainly by DHH respondents. Surprisingly, the second most chosen option was ‘not sure’, which was mostly selected by hearers. These results seem to suggest an insecurity in the hearers regarding the size of subtitles, which is otherwise correct in the DHH respondents’ opinion. A rather limited percentage of participants thought that the subtitles’ size is too small, a result split almost evenly between DHH respondents and hearers. While, an even smaller percentage declared it to be too big, an option selected mainly by hearers.

The following matter inquired the participants' opinion on the possibility of customizing the font size of the subtitling services currently offered on TV through the use of their own remote control. Most participants affirmed to like this option. However, what is surprising is that the majority of the respondents who selected it were hearers. As previously mentioned, we were assuming that the possibility of customizing the font size of the subtitles would have interested both DHH and hearers equally, but that was not the case, thus confirming in part hypothesis 5 (page 18). A small percentage of all participants declared not to be sure whether to like or to dislike the possibility of customizing the subtitles' font size, an opinion shared mostly by hearers. Finally, an even more limited percentage of all respondents claimed to dislike the idea of customizing the font size, an opinion shared mainly by DHH participants. Apparently, the results obtained in this question seem to suggest that the Spanish Audience would appreciate the possibility of customizing the font size of the subtitling services offered by the Spanish Digital Television.

Next, we inquired the participants' opinion on the possibility of customizing the colours of the subtitling services currently offered on TV through the use of their own remote. Most respondents, of which a slight majority was represented by hearers, affirmed that they would like to have this option, thus confirming in part hypothesis 5 (page 18). A limited percentage of participants claimed not to be sure whether they would appreciate this possibility or not. The larger part of the unsure participants were hearers. Finally, an even smaller number of respondents declared that they would not like this option. Once again, the great majority of those participants who disliked the possibility of customizing the subtitles' colours were hearers, whereas the DHH share was only a small part.

The next question referred to the respondents' opinion on the possibility of customising the subtitling speed on the Spanish Digital Television through the use of their own remote. As in the two previous questions, most participants affirmed to like the possibility of customizing their subtitling services, thus confirming in part hypothesis 5 (page 18), however the data retrieved in this inquiry shows that the percentage results obtained in affirmative answer were lower compared to the two previous questions, and that the 'dislike' option was much higher than the other two times. What is puzzling is that, although it was assumed that the DHH respondents would have shown a great interest in the possibility of customizing the speed of the subtitles, the Deaf Community resulted to be divided on this topic. Indeed, the DHH respondents were almost equally split among the three options ('like', 'dislike' and 'not sure'), which is interesting since in Part I 'subtitle's speed' was one of the elements that the participants to the SSDHIS19 requested to modify in the future. Finally, compared to the two previous questions, the 'non sure' option also retrieved higher percentage results.

The questions regarding the possibility of customizing the font size, the colours and the speed of the Spanish SDH through the use of their own remote control were inspired by the results obtained in Part II. Indeed, the comparative analysis of Part II highlighted that Amazon Prime Video gives its viewers the possibility of customizing font size and colours of the subtitles available on the OTT platform, while Netflix allows its audience to customize the speed of all multimedia productions. By providing the audience with the possibility of customizing the subtitling services to their liking, the overall quality and readability of the subtitles could be improved by the viewers themselves, since everyone in the audience has different needs and preferences. As Tamayo (2017b: 78) explains,

viewers' preferences are diverse and must be explored in order to provide subtitles for the needs of all the people in the audience. It follows that by giving the viewers the chance to customize the subtitles to their own liking, the audience is also receiving the possibility to explore their personal needs and preferences.

Following, the participants' inclinations regarding the identification method of the various characters of multimedia contents were inquired. Most participants affirmed to encourage the use of colours, a preference shared almost evenly by both the DHH respondents and the hearers. As a matter of fact, due to the Standard UNE 153010, the Spanish Audience is already used to this identification method, which might explain why 'colours' is the preferred choice of many people in the audience. This answer also confirmed the findings of Part I on the same topic (page 96). In second place there was the use of names, an option selected mainly by hearers, while only a small share was represented by DHH participants. The third most successful option was 'without ID'. Unsurprisingly, this possibility was mainly favoured by hearers, due to their ability to hear the various characters speaking on the screen. However, it is worth noting that a small share of the DHH audience also chose the 'without ID' option, which might suggest that some people in the Deaf Community do not perceive the characters' identification like a vital subtitling feature for the comprehension of the multimedia content they would like to watch. Finally, very few votes were given to the option 'other', which was chosen only by hearers. The use of dash represented the fourth most voted option, which was preferred mostly by hearers, followed by a limited percentage of DHH participants. In Part I the use of dash as identification method of the characters on screen was the second most chosen option, followed by the use of tags (page 96).

As in the first survey, those participants who in the previous question selected the option 'other' were asked to explain their choice by writing their personal suggestions on how to best identify the characters of multimedia content. Their opinions are reported in Annex II (page 221).

As previously mentioned, a similar question was asked also in the first survey of this PhD study (see Table 36 of Part I) and the results obtained from both questions suggest a preference for colours as identification method for the various characters on screen.

Next, we inquired the participants' preferences on which background sounds should be identified in the subtitling services currently offered on TV. Most participants affirmed that all background sounds should be identified, an opinion shared mainly by hearers. However, the DHH respondents of this answer represented a large share of the total amount. In second place there was the option 'noises', which was preferred mostly by hearers, while the DHH participants were only a small part. The third most successful option was 'only voices', a preference shared by a large majority of hearers, and by only a small DHH group. In fourth position there was 'nothing', an opinion greatly shared among DHH participants and by only a limited percentage of hearers. Finally, the option that received the least percentage votes was 'music', an option preferred by mainly hearers, and by a small DHH share.

The data retrieved in this question seem to suggest that the vast majority of the Spanish Audience would appreciate all background sounds, music, voices and noises to be reported in the subtitles offered on the Spanish Digital Television, thus confirming once again hypothesis 4 (page 17).

The following item investigated the participants' opinions regarding the chance of consulting the vocabulary of each television program through Teletext, in case that would be possible. On this page, metaphors, sayings and vocabulary explanations would be reported for the audience to access it and read it before, during or even after watching a multimedia production. Although it was assumed that almost all respondents would have appreciated the addition of a 'Vocabulary' page on Teletext, the (selected) Spanish Audience seemed divided on this topic. Indeed, the number of people who affirmed to like this option were a slight majority, and an almost equal number of votes was given to the option 'maybe like'. Indeed, just like in Part I, also the data retrieved in Part III confirms a slight majority of 'yes', thus confirming hypothesis 3 (page 17). Only a limited percentage of respondents declared not to find the idea appealing. Moreover, those volunteers who claimed to like this option were divided almost evenly between hearers and DHH participants; those who affirmed to maybe like the 'Vocabulary Page' were mostly hearers, while the DHH share represented a smaller part. Finally, the majority of people who did not like this option were hearers, with only a small DHH share.

The data retrieved in this question seems to suggest that the Spanish Audience is interested in the creation of a possible 'Vocabulary Page' that they could consult before, during or after watching a multimedia production on TV, as in Part I (page 96).

Lastly, we decided to ask the participants' opinion on the chance of consulting the plot of each television program through Teletext, in case that would be possible. The majority of the participants affirmed to like this option. Most of those who chose this answer were hearers, while the DHH group were only a smaller share. A limited number of respondents declared to maybe appreciate the possibility of checking the plot of the audiovisual productions on their TV, an opinion that was shared almost equally by hearers and by the Deaf Community. Finally, an even smaller number of participants claimed not to like this option, an opinion mainly shared by hearers, and only by a small share of the DHH public.

From the results obtained in this question it seems clear that the Spanish Audience has a great interest in the possibility of reading the plot of the programmes available on the Spanish Digital Television via Teletext, , thus confirming hypothesis 2 (page 17).

5. Review of the Standard UNE 153010:2012

As mentioned in the section ‘1.3 Research Goals’ (page 19), one of the aims of this PhD study was to create a list of norms that could help translators when creating *Inclusive Subtitles* for the Spanish Digital Television. As previously discussed (page 4), I believe that subtitles, and captions, should be accessible for the majority of the population, in order to grant everyone in the audience the same possibilities of accessing information transmitted on the media. Both subtitles and captions have been proven to be extremely useful to the entire Spanish Audience, (hearing, PWHI, persons with visual impairments, persons with cognitive impairments, persons with more than one impairment, foreigners, children, the elderly) which led to my proposition of changing the definition ‘Subtitling for the Deaf and Hard-of-Hearing’ to *Inclusive Subtitling*, therefore including all the people in the audience. Although it is important to keep in mind that the Audience is composed of a very heterogeneous group of people, who have different needs and expectations, the Standard UNE 153010:2012 focuses primarily on that part of the Spanish Audience composed of people with hearing impairments, who have been taken into account in the elaboration of the Standard UNE 153010:2012. As stated on page four of the Standard UNE 153010:2012,

“[...] this standard does not define quality criteria for producing adapted subtitles, but only those aimed at a maximum population. Although the main users of subtitling are deaf and hearing impaired persons, other users (child audience, elderly, people with intellectual disabilities, language learners, etc.) can benefit from it, since the possibility of improving literacy skills is an added value to subtitling services. The general public may also benefit from subtitling in certain noisy environments (public transport, shopping areas, etc.), and their knowledge sensitizes and prepares for a possible deafness associated with age”. (Standard UNE 153010:2012, page 4)¹³

This list of criteria is aimed at becoming an integrative part of the Standard UNE 153010:2012, with the aspiration of contributing to the matter of *Inclusive Subtitling*, thus it does not intend to replace the criteria of the already existing standard.

In this chapter I present those criteria and suggestions which I believe might improve the Standard UNE 153010:2012 by explaining the content of the various sections of the already existing standard UNE and the reason why each criterion could have a place in each part of this document. The criteria and suggestions presented in this chapter do not

¹³ Original version: “[...] esta norma no define criterios de calidad para elaborar subtítulos adaptados, sino únicamente los dirigidos a un máximo de la población. Aunque los usuarios principales del subtítulo son las personas sordas y personas con discapacidad auditiva, otros usuarios (público infantil, personas mayores, personas con discapacidad intelectual, personas que aprenden idiomas, etc.) se pueden beneficiar de él, ya que la posibilidad de mejorar las habilidades lecto-escritoras es un valor añadido a los servicios de subtítulo. El público en general también puede ser beneficiario del subtítulo en determinados entornos ruidosos (transporte público, áreas comerciales, etc.), y su conocimiento sensibiliza y prepara para una posible pérdida auditiva asociada a la edad” (Standard UNE 153010:2012, page 4). Translation provided by PhD candidate Roberta Cepak.

deal with linguistic issues alone, but they focus on technical and functional aspects of SDH as well. Indeed, as Neves (2005: 44) states, in order to provide a subtitling service aimed at understanding the complexity of translation, the guidelines regarding the creation and the design of subtitling services should not be limited to linguistic issues, but they should involve the functional aspects of translation as well.

“Guidelines that just reflected linguistic issues would certainly be incomplete and inadequate for they would be simply product-oriented. If a functional- oriented approach is to be taken towards the understanding of the communicative purpose underlying and translation activity, this will bring together linguistic and culture-oriented methods to engage in a better understanding of the intricate makings of translation”. (Neves, 2005: 44)

Moreover, from the following criteria it can be inferred that the Standard UNE 153010:2012 represents a great tool for the creation of *Inclusive Subtitles* as it is, yet it could be improved with the addition of the following standards.

The following list was created on the basis of the results obtained in each of the three phases of this PhD project. After each step of this study, the data retrieved was safely stored in order to proceed with the following part of the plan. Finally, the most relevant outcomes of each of the three phases were further examined and compared with the Standard UNE 153010:2012 to determine their value in the future of both Audiovisual Translation and Accessibility Studies.

The Standard UNE 153010:2012 is a document that was published in May 2012 and it is divided into ten sections, plus four Annexes. Each part of the standard discusses a different aspect of the Subtitling for the Deaf and Hard-of-Hearing, by clearly explaining both the definitions and the criteria to be followed when subtitling for said audience. It is important to keep in mind that not all channels of the Spanish Digital Television make use of the same subtitling services, which means that the way subtitles—and captions—are created and transmitted on each channel of the Spanish TV may vary in their presence (i.e., they might be available to the audience, they might be sometimes available or they might not be available at any time), in their format (each channel may present subtitles/captions in different sizes, and/or colour and background colour), in their speed (some channels may use faster subtitles/captions than others), in their position on the screen (some channels may prefer the subtitles/captions to change their position on the screen during the program, some may rather choose to keep them locked on a particular part of the screen), in the identification of characters present on the various programs and so on. It is important to keep in mind that such differences occur due to the noncompulsory nature of all the criteria present in the Standard UNE 153010:2012. As it is explained in paragraph 3.2 ‘Conformidad’ (‘Compliance’), the enforceability of each of the criteria must be evaluated, as well as in case of the suggestions offered in the document. Therefore, not all criteria are to be interpreted as obligatory, but rather as mere suggestions that can be taken into consideration or not.

“Compliance with this UNE Standard is achieved through compliance with all applicable requirements and by providing a systematic list of all recommendations that have been complied with. Any requirement deemed not applicable should also appear in the list, with an annotation explaining the reasons why it is not applicable.

Users of this UNE Standard should assess the applicability of each requirement (phrases with the verb "must") and that of each recommendation (phrases with the verb "should") to determine whether they are applicable in the particular context of use that has been established for the audiovisual content being subtitled.

If a product is declared to meet the applicable requirements and recommendations of this standard, the procedure used to set requirements, for the development or for the evaluation of subtitles should be specified. The level of specification of the procedure depends on negotiation between the parties involved”. (Standard UNE 153010:2012, page 8)¹⁴

The ten sections of the Standard UNE 153020:2012 are: (Nr. 0) Introduction, (Nr. 1) Scope and field of application, (Nr. 2) Terms and Definitions, (Nr. 3) Content and use of the standard, (Nr. 4) Introduction of the subtitles: Visual aspects, (Nr. 5) Introduction of the subtitle: Temporary aspects, (Nr. 6) Identification of characters, (Nr. 7) Sounds effects, (Nr. 8) Contextual information and voiceover, (Nr. 9) Music and songs, (Nr. 10) Editorial criteria. After these sections, four Annexes are introduced: (Annex A— Normative) Measures related to colour, (Annex B—Normative) Accurate calculations of live subtitles, (Annex C—Normative) Delay in live subtitles, (Annex D— Informative) Minimum strategies for economize on vocabulary.

In the first section ‘Introduction’, both the reasons for the creation of the standard, as well as the needs of the people they have been designed for are explained. Section nr. 1— ‘Scope and field of application’—describes the criteria’ nature and goals. In ‘Terms and Definitions’, a list of expressions and/or terms used throughout the entire document are clarified for all readers to fully comprehend the standard. Section nr. 3—‘Content and use of the standard’—presents a summary of the standard’s subject matters.

As it is possible to guess by the titles of each of these preliminary chapters, no criteria are presented so far. The list of standards starts from the following section, called ‘Introduction of the subtitles: Visual aspects’. Indeed, section nr. 4 is the first chapter dealing with the subtitling criteria listed in the Standard UNE 153010:2012 and it is divided in the following ten subchapters: ‘4.1 Position of subtitles (on screen)’, ‘4.2 Position of background sounds

¹⁴ Original version: “La conformidad con esta Norma UNE se logra mediante el cumplimiento de todos los requisitos aplicables y presentando una lista sistemática de todas las recomendaciones que se han cumplido. Cualquier requisito que se haya considerado como no aplicable también debe aparecer en la lista, con una anotación que explique las razones por las que no es aplicable. Los usuarios de esta Norma UNE deben evaluar la aplicabilidad de cada requisito (frases con el verbo “debe”) y la de cada una de las recomendaciones (frases con el verbo “debería”) para determinar si son aplicables en el contexto particular de uso que se ha establecido para el contenido audiovisual que se está subtitulando. Si se declara que un producto cumple los requisitos y las recomendaciones de esta norma que son aplicables, debe especificarse el procedimiento utilizado para establecer requisitos, para el desarrollo o en la evaluación de los subtítulos. El nivel de especificación del procedimiento depende de la negociación entre las partes involucradas” (Standard UNE 153010:2012, page 8). Translation provided by PhD candidate Roberta Cepak.

(on screen)', '4.3 Number of text lines (per scene)', '4.4 Static presentation of text lines', '4.5 Different lines per each character', '4.6 Number of characters per line', '4.7 Minimum size of characters', '4.8 Maximum size of characters', '4.9 Typography', '4.10 Contrast of colours between characters and their contour or box'.

'Introduction of the subtitles: Visual aspects' represents a very important chapter of the Standard UNE 153010:2012, because it deals with some of the most critical elements of the subtitling services, i.e., the visual aspects of subtitles, which is a great part of the end result. From the three studies conducted over these past three years, many have been the data collected regarding the visual aspects of the subtitles offered on the Spanish Digital Television. Nevertheless, when the Spanish Audience was asked which features of the currently offered subtitles they would like to see changed in the future, the position of both subtitles and background sounds never emerged. This suggests that the Spanish Audience does not require any changes with reference to the position of subtitles, therefore no additional criterion would be added to the subsection 'Position of subtitles (on screen)' nor to 'Position of background sounds (on screen)'.

With regards the number of text lines (per scene), no new criterion would be added, as in the Standard UNE 153010:2012 it is written to use either two or three lines of text as maximum, which is a very common rule used by both OTT platforms and Digital Television. In the first study carried out during this PhD project, it was discovered that the higher the presence of dialogues per scene, the more that scene was perceived as difficult to follow by the Spanish Audience. If the amount of text lines per scene would be higher than three lines (as maximum), the audience would most probably struggle with reading the subtitles on screen, leading to a decrease of enjoyment. This opinion is supported by Kuo (2017: 19), who states that

“Concerning the use of three- or four-liner subtitles, an oversized layout can obstruct the view of the audience and negatively decrease visual perception quality by occupying one-fourth to one-third of the image. Hence, although subtitles can cater for different language needs, the programme may not be as appreciated and understood by the audience as expected. Accordingly, the subtitling quality can be jeopardised.”

As for the 'Different lines per different character' section, the results obtained in this PhD project show that the Spanish Audience has a preference with regards to the identification of characters. Indeed, in both Part I (page 64) and Part III (page 142) of this study, the (selected) Spanish Audience was asked to list their favourite identification methods for characters on screen and the data retrieved in both studies show that the use of colours remains the most favourite identification method, followed by the use of dashes and the inclusion of names. For this reason, it seems that using different lines of subtitles per each character on screen continues to be a valid option for the discernment of characters in each scene. No additional criterion would be added to this section.

The following section, called 'Number of characters per line', did not raise any particular interest in the Spanish Audience over the three phases of this PhD project. Neither in the surveys nor in the comparative analysis of the three OTT platforms the number of

characters per line resulted to be one of those subtitles' features that should be reviewed in the future. Therefore, no additional criterion would be added to this section.

As for the two following sections, called 'Minimum size of characters' and 'Maximum size of characters', the data retrieved in both the first and the last surveys of this PhD project highlighted some interest in the font size of the characters used in subtitles. While the readability of subtitles in both Part I and Part III was rated as 'OK', which suggests that not all the people in the audience feel comfortable with the readability of the subtitles currently offered, the (selected) Spanish Audience seemed quite fascinated by the possibility of customizing the font size of the subtitles offered on the Spanish Digital Television. As this option is provided on some OTT streaming platforms, such as Amazon Prime Video (page 108), when asked if such an idea would improve the readability of subtitles, the (selected) Spanish Audience replied with interest to it (page 146). Moreover, while in the second survey the (selected) Spanish Audience evaluated the font size as 'OK', in the first survey they declared both font size and colours as the two subtitles' features that needed the most changes (page 94).

The idea of providing the audience with the possibility of customizing the font size of subtitles when streaming a multimedia content is not new, but it has raised the interest of stakeholders and scholars already in the past few years. One example can be found in Neves (2018: 88), who affirms

“Research towards the provision of such ‘adjustable’ subtitles is ongoing and the BBC has taken the lead in implementing responsive subtitling for its online content. In 2015, the BBC implemented its responsive online design, providing a ‘stream of video feature data’ with ‘subtitles that can be resized and reformatted on the fly in response to device orientation, screen size and user preference, without obscuring important features’ (Brooks and Armstrong 2014)”.

I would like to suggest the addition of the criterion '4.8.1 Possibility of customizing the font size of subtitles' to section 4 ('Introduction of the subtitles: Visual aspects') of the Standard UNE 153010:2012. The above-mentioned criterion would not be a modification of the already existing criteria '4.7 Minimum size of characters' and '4.8 Maximum size of characters', but it would be a mere addition to section 4. Here are the already existing criteria regarding the minimum and maximum sizes of characters allowed by the Standard UNE 153010:2012:

“4.7 Minimum character size

Subtitle characters should have a minimum size so that they are readable by people with normal vision, from a distance of 2.5 meters, when subtitles are displayed on a 4:3 and 38 cm (15 in) diagonal screen.

NOTE This minimum size requirement is based on the software accessibility requirement 9.2.2 of technical standard UNE 139802:2009 and allows the use of

different text sizes depending on the screen size where the subtitles are to be issued.” (Standard UNE 153010:2012, page 9)¹⁵

“4.8 Maximum character size

The maximum size of the characters must be that which allows to display a subtitle with 37 characters.

NOTE 1 Safety margins (paragraph 2.12) and the number of characters per line (paragraph 4.6) shall be taken into account for measuring this maximum font size.

NOTE 2 If a proportional font is used (in which each character has a different width) the considered width has to allow 37 ‘m’ letters in one subtitle to be displayed on the screen”. (Standard UNE 153010:2012, page 9)¹⁶

The following criterion could be added to the previous two criteria above-mentioned:

4.8.1 Possibility of customizing the font size of subtitles

The font size of the subtitles available on the Spanish Digital Television may be adapted to the wishes of the audience through the use of their own remote control.

The audience shall be allowed to customize the font size of the subtitles to their own urges, within the limits allowed by the subsections ‘4.7 Minimum size of characters’ and ‘4.8 Maximum size of characters’, in order to render the subtitling service more accessible to people with visual impairments, or with other needs, within the limits allowed by law.

The audience shall be allowed to choose among a minimum of three different font sizes of subtitles, which must respect the limits allowed by subsections ‘4.7 Minimum size of characters’ and ‘4.8 Maximum size of characters’.

¹⁵ Original version: “4.7 Tamaño mínimo de los caracteres: Los caracteres de los subtítulos deben tener un tamaño mínimo de forma que sean legibles por personas con visión normal, desde una distancia de 2,5 metros, cuando los subtítulos se muestran en una pantalla de formato 4:3 y 38 cm (15 pulgadas) de diagonal. NOTA Este requisito de tamaño mínimo está basado en el requisito 9.2.2 de la norma técnica UNE 139802:2009 de accesibilidad de software y permite usar tamaños de texto diferentes en función del tamaño de pantalla donde se vayan a emitir los subtítulos” (Standard UNE 153010:2012, page 9). Translation provided by PhD candidate Roberta Cepak.

¹⁶ Original version: “4.8 Tamaño máximo de los caracteres: El tamaño máximo de los caracteres debe ser aquél que permita presentar en pantalla un subtítulo con 37 caracteres. NOTA 1 Para medir este tamaño máximo de letra se tendrán en cuenta los márgenes de seguridad (apartado 2.12) y el número de caracteres por línea (apartado 4.6). NOTA 2 Si se utiliza un tipo de letra proporcional (en el que cada carácter tiene un ancho diferente) el ancho considerado tiene que permitir que se pueda presentar en pantalla un subtítulo con 37 letras ‘m’” (Standard UNE 153010:2012, page 9). Translation provided by PhD candidate Roberta Cepak.

This criterion is focused on the technological aspect of the subtitles' font size, whilst it does not provide the subtitlers with further instructions on which font size to use in the creation of future SDH. However, as Neves (2005: 118) well predicted in her PhD thesis, very soon the audience will be given the possibility to adjust the subtitles to their preferences and needs in terms of font size, colour and even their position on the screen. As it was possible to see in Part II, the audience is already given the chance to customize the subtitling services to their likings on some OTT platforms, like for example Amazon Prime Video.

“Audiovisual translation, and subtitling in particular, is bound to change with the new prospects. If until recently receivers had to adjust to the subtitles that were given to them, very soon, it may be possible for viewers to choose the type of subtitles they want to view. It will mean that subtitles will be selected and adjusted to suit the likes and needs of different viewers. This may mean a change in font, colour or position on screen, but it may also mean being able to choose graded subtitles to preferred reading speeds or degree of complexity.”

With regards to section ‘4.9 Typography’, no issue has emerged in the three phases of this PhD project regarding the visual writing appearance of subtitles. Thus, no additional criteria would be added to this section.

Finally, the content of the following subchapter, called ‘4.10 Contrast of colours between characters and their contour or box’, did arouse some interest among the members of the (selected) Spanish Audience, who highlighted the problem of colours and background colours in the subtitles currently offered. Indeed, in both the first (page 94) and the last phases (page 148) the audience expressed the wish to modify the colours used in the subtitling services, preferably by customizing the colours through the use of their own remote. This might be due to the fact that some OTT streaming platforms, such as Amazon Prime Video, allow their viewers to customize their subtitles in terms of colours, background colours and size, in order to improve accessibility for those people with visual impairments or other needs. As Neves (2018: 88) well explains, to provide the audience with the possibility of customizing their subtitling services in terms of font size, colours and positioning on screen, may require only the possibility of predefining different options in terms of font sizes, colours and positions of subtitles on screen. However, letting the audience choose between verbatim and edited subtitles, for example, would be harder to realize.

“It should be noted that the greater the freedom of choice that is given to the enduser, the more stable the standards of transmission and the more interchangeable the units of information (mostly subtitles) need to be. On the one hand, providing viewers with the capacity to personalize font sizes and colours, or subtitle positioning on a screen, may only require the availability of a set of predefined options that work within different screen sizes and types. The same applies to the addition of extra layers of information—e.g. giving audiences the means to activate tags for sound effects and music or alternative solutions such as the insertion of emoticons. However, other types of choices (e.g. verbatim vs. edited subtitles) might prove more difficult to implement. Manipulating the

content to promote readability, understanding and enjoyment is the crux of ongoing research, and an important element in the very definition of quality in SDH”. (Neves 2018: 88)

The possibility of customizing the colours of subtitles already emerged in a study that Szarkowska and Boczkowska (2020) conducted in Poland. Indeed, the researchers investigated the possibility of using the colour-coding strategy in multilingual movies in order to improve the immersive tendency of the audience. From their study it emerged that “the colour-coding strategy benefitted those viewers who normally do not become easily immersed in films” (Szarkowska and Boczkowska 2020: 10). They suggested that “colour coding could be made optional for viewers to switch on and off at will, for instance on VOD services, thus allowing viewers with low immersive tendency to benefit from them”. Therefore, as for the font size of subtitles, also in this section a criterion could be added to the already existing one, which is the following:

“4.10 Colour contrast between characters and their contour or box

The contrast ratio between a character and its contour or box should have a minimum value of 4.5.

NOTE 1 Annex A details how to calculate the value of the contrast ratio between two colours.

NOTE 2 If a subtitle box is used (definition 2.1) the contrast between the text color and the box color is measured. If a subtitle box is not used then the contrast between the color of the text and the color of its outline (defined in 2.5) is measured.

NOTE 3 A good contrast is considered when it is written in a light color on a dark background, or dark letter on a light background. In general it is preferable to use light colors on dark backgrounds”. (Standard UNE 153010:2012, page 9)¹⁷

The following criterion—which involves the technical aspect of the subtitling services offered by the Spanish Digital Television and has nothing to do with the subtitler’s jobs—was inspired by the colour combinations offered by Amazon Prime Video (page 108) and it could be added to the previous two criteria above-mentioned:

¹⁷ Original version: “4.10 Contraste de colores entre caracteres y su contorno o caja: La relación de contraste entre un carácter y su contorno o caja debe tener un valor mínimo de 4,5. NOTA 1 En el anexo A, se detalla cómo calcular el valor de la relación de contraste entre dos colores. NOTA 2 Si se utiliza una caja de subtítulos (definición 2.1) se mide el contraste entre el color del texto y el color de la caja. Si no se utiliza una caja de subtítulos entonces se mide el contraste entre el color del texto y el color de su contorno (definido en 2,5). NOTA 3 Se considera un contraste bueno aquél en el que se escribe en un color claro sobre fondo oscuro, o letra oscura sobre fondo claro. En general es preferible el uso de colores claros sobre fondos oscuros” (Standard UNE 153010:2012, page 9). Translation provided by PhD candidate Roberta Cepak.

4.10.1 Possibility of customizing the colour and the background colour of subtitles

Both the colour and the background colour of the subtitles available on the Spanish Digital Television may be adapted to the wishes of the audience through the use of their own remote control. Therefore, the audience shall be allowed to customize both features according to their own urges, in order to render the subtitling service more accessible to people with visual impairments or with other needs, within the limits allowed by law. The audience will be able to choose among the following colour combinations: white subtitles on black background, white subtitles with no background, yellow subtitles on black background and black subtitles with no background.

Due to the inquiries conducted over the three phases of this PhD project, I would like to suggest the addition of two more criteria to this chapter. The first one, regarding the addition of a ‘Vocabulary’ page on Teletext, since the results obtained from the two surveys (page 104 and 153) conducted in this study suggested that the (selected) Spanish Audience would be interested in consulting this page before, during or after watching a multimedia production on TV. The second one would see the addition of a ‘Plot’ page on Teletext, with the aim of providing a short summary of the plot of each multimedia production available on TV. The reason behind this lies in the fact that the participants of the second survey stated that they would be interested in checking the plot of the audiovisuals that they would like to watch (page 154).

4.11 ‘Vocabulary’ page on Teletext

A ‘Vocabulary’ page should be created on Teletext with the final aim of providing the Spanish Audience with the possibility of accessing the meaning of the lexicon, the sayings and the metaphors used in each TV program. This page should be available on Teletext before, during and after each multimedia production will be aired on the Spanish Digital Television.

4.12 ‘Plot’ page on Teletext

A ‘Plot’ page should be created on Teletext with the final aim of providing the Spanish Audience with the possibility of accessing the plot of each movie production, and any other TV program, airing every day. This page should be available on Teletext before, during and after each multimedia production will be aired on the Spanish Digital Television.

Chapter number five of the Standard UNE 153010:2012, entitled ‘Introduction of the subtitle: Temporary aspects’, is divided into three subsections called: ‘5.1 Subtitles’ exposure speed’, ‘5.2 Synchronism’, ‘5.3 Delay in live subtitles’.

This chapter represents a section that is quite relevant to the matter of subtitles, due to the topics it deals with—like subtitling speed—which are some of the most important to the audience. Even though it has been proven that viewers can deal with fast subtitles (Szarkoska 2018: 27), not everyone in the audience feels comfortable with the current subtitling speed. As a matter of fact, in both the first and in the last phases of this PhD project, the (selected) Spanish Audience declared the subtitling speed to be one of those elements that they would like to see modified in the future.

In the first survey, the (selected) Spanish Audience was asked to decide in which order certain subtitles features should receive the most adjustments in the future. The subtitling features we asked to put in order were: lexicon, position, speed, colour and font size. The data retrieved in this question show that the (selected) Spanish Audience would like the subtitles' 'font size' to be rearranged first, followed by 'colour', 'speed', 'lexicon' and finally 'position'(page 94). As it is possible to see, subtitling speed was voted in third, which highlights the need for adjustments.

In the second survey, the (selected) Spanish Audience was asked to declare their opinion regarding the possibility of customizing the speed of subtitles offered on the Spanish Digital Television through the use of their own remote control. As most participants affirmed to wish this option would exist (page 151), it could be added one criterion to the subsection 5.1:

5.1.1 Possibility of customizing the speed of subtitles

The speed of the subtitles available on the Spanish Digital Television may be adapted to the wishes of the audience through the use of their own remote control. The viewers shall be able to choose among three different subtitling speeds, which must stay within the limits of the law. Therefore, the audience shall be allowed to customize the subtitling speed according to their own urges, in order to render the subtitling service more accessible to everyone in the audience.

This criterion was inspired by the famous OTT platform Netflix, which allows its users to customize the playback speed of any multimedia production available on the platform (page 118). The possibility of customizing the speed of the subtitling services would not affect the speed of the multimedia production aired on screen, as in Netflix, but only the subtitles themselves, which should keep their synchronicity with each scene of the program aired at that moment. Indeed, if the above-mentioned criterion would be added to the Standard UNE 153010:2012, the Spanish Audience would have the possibility of choosing among three different subtitling speeds, which should stay within the limits of the law and therefore, respecting the synchronicity between subtitles and scenes.

As for the matters of synchronism and delay in live subtitles, subsections 5.2 and 5.3, many participants in both surveys of this PhD project expressed their frustration for the lack of synchronism happening sometimes in the delivery of the subtitling services currently offered on the Spanish Digital Television, especially to those subtitles added to live programs. Although it is extremely difficult to deliver perfectly synchronised subtitles, it should also be a prerogative of the media producers. As Kuo (2017: 04) well explains, without synchronism between the subtitling services and the multimedia productions, the

audience becomes aware of the presence of the subtitling services on screen, which translates into poor enjoyment of the audiovisual in case.

“The subtitler is responsible in fulfilling this aim and must produce subtitles that are significantly in sync with the mood and rhythm of the audiovisual programme that the audience becomes unaware of actually reading them. This need for subtitles to be ‘invisible’ has been adhered to by many scholars and professionals (Georgakopoulou 2009; Gottlieb 2000; Ivarsson and Carroll 1998) and heralded by some as one of the clear signs of good subtitling (Jokelainen 2009; Lindberg 1989)”. (Kuo, 2017: 04)

Since both subsections 5.2 and 5.3 are laws and not mere suggestions, no new criterion would be added to these subchapters.

Chapter number six is called ‘Identification of characters (on screen)’ and it consists in the following nine subsections: ‘6.1 Choosing Character Identification Techniques’, ‘6.2 Maintaining the colour assigned to a character’, ‘6.3 Difference in colours’, ‘6.4 Use of tags as identification technique’, ‘6.5 Tags’ position (on screen) for the identification of characters’, ‘6.6 Editing labels for character identification’, ‘6.7 Use of abbreviations in tags’, ‘6.8 Use of dash during dialogues’, ‘6.9 Characters’ identification in voice-off’.

In subsection number 6.1, called ‘Choosing Character Identification Techniques’, three are the identification techniques allowed in this criterion: the use of colour, the use of dashes and the use of tags. As previously mentioned, the Spanish Audience is already used to the use of colour for the discernment of the characters on screen, which explains why ‘colour’ is still the most appreciated identification technique among the Spanish viewers.

The data collected in both the first and in the last phases of this PhD project confirm the enjoyment of the (selected) Spanish Audience of the three above-mentioned identification methods, which means that no new criterion would be added to this subchapter.

As for the following subchapter, called ‘Maintaining the colour assigned to a character’, I would like to remind the (selected) Spanish Audience’s wish of customizing both the colour and the background colour of the subtitling service offered on the Spanish Digital Television. Therefore, as a new criterion was previously added with reference to this matter, no other criterion would be added to this, nor to the following subsection, ‘Difference in colours’.

With reference to subchapter number 6.4, ‘Use of tags as identification technique’, there is no need to add a new criterion here, as the (selected) Spanish Audience agrees on the use of tags in case of possible misunderstandings during the vision of a multimedia production.

Subsection number 6.5, called ‘Tags’ position (on screen) for the identification of characters’, determines the position of tags in subtitles. This criterion declares the need of the tags to precede each subtitle on screen. Since the position of tags never appeared to represent an issue among the members of the (selected) Spanish Audience, no new criterion would be added here.

Following, as the (selected) Spanish Audience did not express any concerns regarding the tags' features, no new criteria would be added to neither the subsection number 6.6, 'Editing labels for character identification', nor to the successive subchapter number 6.7, 'Use of abbreviations in tags'.

As for the use of dashes in representation of the various characters on screen, which is the content of subsection number 6.8, 'Use of dash during dialogues', the (selected) Spanish Audience declared colours, tags and dashes their favourite techniques for the identification of characters. Consequently, no new criterion would be added to this subchapter.

Finally, there is no need to add any new criterion to this chapter's last subsection, called 'Characters' identification in voice-off'.

Chapter seven, called 'Sound effects', is divided into seven subchapters, which are: '7.1 The representation of sound effects in recorded subtitles', '7.2 The representation of sound effects in subtitles during live and semi-live multimedia productions', '7.3 Rhythm and synchronism of sound effects', '7.4 Format', '7.5 No redundancy with visual information', '7.6 Substantivation of sound effects', '7.7 Subtitling of the emission of sounds'.

The first subsection of this chapter, called 'The representation of sound effects in recorded subtitles', explains that "All those sound effects considered necessary for a good followup of the plot must be subtitled". Sanz Ortega (2011:19) declares that "as Zabalbeascoa (1997) and Perego (2009) have pointed out, non-verbal elements cannot be ignored in audiovisual products as they add meaning and/or reinforce linguistic statements". Then she continues by saying, "[...] non-verbal elements can play a significant role in the filmic diegesis and can, therefore, be essential for the understanding of the film". Over the three phases of this PhD project this statement has been confirmed in both the first (page 100) and in the last surveys (page 153), where all participants, regardless of whether they were PWHI or not, requested all sound effects and background sounds to be subtitled at all times. In both surveys the volunteers declared all background sounds to be essential for a correct interpretation of the multimedia productions.

In Part III, volunteers were asked to declare their reasons for using subtitles—and captions—when watching TV. 'Accessibility' was chosen as the primary reason for their use, 'language(s) comprehension' was the second most selected option, 'L2 learning' was put in third position and finally 'other reason' was left as fourth choice. As it is possible to see from the data retrieved in these studies, subtitles—and caption— are clearly very valuable to the (selected) Spanish Audience, especially for accessibility reasons. Here is the criterion currently used in this subsection:

"7.1 Subtitles of sound effects in recorded subtitles

The sound effects necessary for a good follow-up of the plot must be subtitled.

NOTE 1 A sound effect can be produced by anyone or anything else on the film on or off the screen. The sound effect shall be subtitled if it is not obvious that it has occurred.

EXAMPLE 1 (Shouting), (Laughter), (Applause), (Ringing), (Banging), (Telephone), (Disco), (Classical music), (Claxon), etc.

EXAMPLE 2 If in a sequence two characters are talking and you hear a scream in the distance, you have to subtitle it as a sound effect because the action of the program will surely take a turn.

NOTE 2 For the display position see paragraph 4.2". (Standard UNE 153010:2012, page 13)¹⁸

The above-mentioned criterion could be modified as following:

7.1 The representation of sound effects in recorded subtitles

Whenever possible, all sound effects, background sounds and music should be rendered explicit to the audience via subtitles. Indeed, all sounds, noises, voices and music are considered relevant to the audience for a correct interpretation of multimedia productions, therefore information regarding the presence of such elements in every scene must be clearly provided to the viewers, as much as possible.

NOTE 1 A sound effect can be produced by anyone or anything else on the film on or off the screen.

EXAMPLE 1 (Shouting), (Laughter), (Applause), (Ringing), (Banging), (Telephone), (Disco), (Classical music), (Claxon), etc.

EXAMPLE 2 If in a sequence two characters are talking and you hear a scream in the distance, you have to subtitle it as a sound effect because the action of the program will surely take a turn.

NOTE 2 For the display position see paragraph 4.2.

Subchapter number 7.2, called 'The representation of sound effects in subtitles during live and semi-live multimedia productions', states that "Whenever possible, live and semi-direct subtitles should include sound effects. NOTE You can't expect the same extra-linguistic information in live and semi-direct subtitles as in engravings." As mentioned in the previous subsection, I believe that all sound effects, background sounds and music should be rendered explicit to the audience at all times, if possible. Therefore, this criterion could be modified as following:

¹⁸ Original version: "7.1 Subtitulado de los efectos sonoros en subtítulos grabados: Se deben subtitular los efectos sonoros necesarios para un buen seguimiento de la trama argumental. NOTA 1 Un efecto sonoro puede producirlo cualquier persona o cosa que aparezca en la película tanto en la pantalla como fuera de ella. Se subtitulará dicho efecto sonoro si no es evidente que se haya producido. EJEMPLO 1 (Gritos), (Risas), (Aplausos), (Timbre), (Golpes), (Teléfono), (Música disco), (Música clásica), (Claxon), etc. EJEMPLO 2 Si en una secuencia dos personajes están hablando y se oye un grito en la lejanía, hay que subtitularlo como efecto sonoro porque la acción del programa seguramente dé un giro. NOTA 2 Para la posición en pantalla véase el apartado 4.2." (Standard UNE 153010:2012, page 13). Translation provided by PhD candidate Roberta Cepak.

7.2 The representation of sound effects in subtitles during live and semi-live multimedia productions

Whenever possible, live and semi-direct subtitles should include sound effects, background sounds and music. Indeed, all sounds, noises, voices and music are considered relevant to the audience for a correct interpretation of multimedia productions, therefore information regarding the presence of such elements in every scene should be clearly provided to the viewers, as much as possible.

The subchapter number 7.3, called ‘Rhythm and synchronism of sound effects’, states that “The subtitling of sound effects should be adapted to the rhythm of the audiovisual language by respecting the story’s narrative intention and by maintaining the synchronism of sound effects and subtitles to transmit the same information as the sound content”. From this criterion it seems clear that rhythm and synchronism are two very important elements of any audiovisual product, because they provide both cohesion and coherence between the subtitles and the story told by the multimedia production. This opinion is supported by Kuo (2017: 13), who states that

“Temporal synchronisation between subtitle and soundtrack has a major influence on the viewer’s appreciation of subtitling quality, as does the respect of shot changes. On this basis and from aesthetic and reception perspectives, a subtitle must not over-run shot changes to avoid causing perceptual confusion (Díaz-Cintas and Remael 2007; Karamitroglou 1998). [...] Therefore, prioritising the soundtrack over shot changes when spotting subtitles is a sign of good quality”. (Kuo, 2017: 13)

This opinion is shared among the (selected) Spanish Audience as well, who in the first survey expressed their concern regarding the lack of synchronism between the multimedia content offered on TV and the subtitling services currently used by the Spanish Digital Television. Such a concern was related to both recorded subtitles and live, or semi-live, subtitling services. Indeed, sometimes there is a lack of rhythm and synchronism of sound effects in the subtitles provided on the Digital Television, which could be due to the noncompulsory nature of the statement of subchapter number 7.3. This may be the reason for the lack of rhythm and synchronism of sound effects in the subtitling services provided on the Spanish Digital Television. Therefore, the criterion used in subchapter number 7.3 could be modified as following:

7.3 ‘Rhythm and synchronism of sound effects’

The subtitling of sound effects should be adapted to the rhythm of the audiovisual language by respecting the story’s narrative intention and by maintaining the synchronism of sound effects and subtitles at all times in order to transmit the same information as the sound content.

Next, subchapter number 7.4, 'Format', explains that "Sound effects should be subtitled in parentheses with the first letter in upper case letters and the others in lower case letters". Since the format of sound effects and background sounds has never been mentioned by the (selected) Spanish Audience in the two surveys conducted in Spain, no criterion will be added to this subsection.

In subchapter number 7.5, 'No redundancy with visual information', it is disclosed that "When visual information makes the sound effect redundant, the sound should not be described". As described in this statement, sometimes sound effects and background sounds are not rendered explicit in the subtitles in order to avoid redundancy, which could be caused by the visual representation of those same sounds in a particular scene. For example, the choice of avoiding writing 'applause' when there are people clapping their hands on screen. The same technique is adopted by Netflix, whose captions only report those background noises that are invisible to the viewers, in order to avoid redundancy (page 116). For Tamayo (2017a: 03), the subtitler is the person in charge of deciding whether or not to explicitate a sound or an utterance, as there might be the risk of causing an episode of redundancy between the sound and the scene on screen.

"When dealing with sounds uttered by characters, the subtitler must consider redundancy and relevance to decide whether to explicitate them or not. If a character is seen on screen laughing or coughing, for example, there will be no need to explicitate such a sound, as it would be redundant with the visual and will not add information".

The following subchapter, called 'Substantivation of sound effects', specifies that "All sound effects should be transformed into their substantive form", for example instead of writing 'screaming' in the subtitles, it would be written 'scream'. Since over the three phases of this PhD project the substantivation of background sounds and sound effects was not identified as problematic, no new criterion will be added to this subsection.

Finally, in 'Subtitling of the emission of sounds', it is explained that "The subtitling of the sound effect should refer to its emission and not to its reception". Once again, due to the fact that the way sound effects are delivered in the form of subtitles was not mentioned as one of the subtitles' features to be modified or improved in the future, no new criterion will be added to this subsection.

Chapter number 8 is called 'Contextual information and voiceover' and it is divided into six subchapters: '8.1 Subtitling contextual information in recorded subtitles', '8.2 Subtitling contextual information in live and semi-direct subtitles', '8.3 Format of contextual information', '8.4 Position of suprasegmental elements', '8.5 Synchronism in vocal sounds', '8.6 Voice-over'.

Subsection number 8.1, called 'Subtitling contextual information in recorded subtitles', explains that "All contextual information must be subtitled". As previously mentioned, in both the first and in the last surveys of this PhD project, most participants of the (selected) Spanish Audience were highlighting the need for all sound effects, background sounds, voices and music to be written in the subtitles in the future. Therefore, this criterion meets

the expectations of the (selected) Spanish viewers, which means that no other criterion will be added to this subchapter.

Next, in subsection number 8.2, called ‘Subtitling contextual information in live and semi-direct subtitles’, it is affirmed that “Whenever possible, all contextual information should be subtitled in live and semi-live subtitles”. Since this topic was not dealt with in the three phases of this PhD project, no new criterion will be added to this subchapter.

Subchapter number 8.3 deals with the format of contextual information and it says that “Contextual information must be delivered in upper case letters in parenthesis”. Since the subtitles’ format has not been claimed to represent any issues to the (selected) Spanish Audience in the surveys conducted in Spain, no new criterion will be added to this subsection.

In the following subchapter, called ‘Position of suprasegmental elements’, it is explained that “The subtitles of the suprasegmental elements should appear in front of the text to which it applies”. Since the position of the suprasegmental elements has not been identified as problematic by the (selected) Spanish Audience in the three studies of this PhD project, no new criterion will be added to this subsection.

It is important to note that if the (selected) Spanish Audience would have been asked about this topic, maybe the results would have been different. Therefore, it would be interesting to keep inquiring with the Spanish Audience on the subtitling elements in the future in order to retrieve more information about the opinions of the audience regarding the Standard UNE 153010:2012.

Subchapter number 8.5, called ‘Synchronism in vocal sounds’, declares that “The subtitles of vocal sounds must appear the moment they occur”. As previously discussed, synchronism in subtitling services is one of the most important features of subtitles, because they convey coherence and cohesion to the story and its subtitles. However, if this feature is missing, or wrongly delivered, the viewers will eventually lose interest in the multimedia production for lack of synchronism. That is why, it is imperative for subtitles to convey the content of each scene of audiovisual products at the same time as anything happens, otherwise the public will be lost without understanding the narrative story behind it. As this criterion meets the expectations of the (selected) Spanish Audience, since it declares the synchronism of subtitles as a must, no new criterion will be added to this subsection.

Finally, subchapter number 8.6, called ‘Voice-over’, specifies that “If technology allows, the subtitles in modality ‘voice-over’ should be in italics”. Since during the studies of this PhD project the (selected) Spanish Audience was not inquired on the format of voiceover subtitling to represent an issue, no new criterion will be added to this subsection.

As it is possible to notice from the analysis of chapter 8 (‘Contextual information and voiceover’) of the Standard UNE 153010:2012, none of the subtitling elements described in the above-mentioned section were dealt with in any of the three phases of this PhD project. However, it could be interesting to further investigate this topic in order to retrieve valuable information about it to keep improving the Standard UNE 153010:2012, if possible.

Chapter number 9 is called ‘Music and songs’ and it is divided into five subsections, which are: ‘9.1 Subtitling music’, ‘9.2 Format of subtitling music’, ‘9.3 Subtitling songs’, ‘9.4 Marking of songs’, ‘9.5 Identification of characters in song lyrics’.

In the first subchapter, called ‘Subtitling music, it is explained that

“Music should be subtitled if it is important to help the viewer understand the plot, using one or more of the following three contents: a) the type of music; the sensation it transmits;

b) identification of the piece (title, author...).

When the music is subtitled, it should be subtitled describing the type of music and following the format of a sound effect: at the top of the screen, in parentheses, the first letter in capital letters and the rest in lower case”. (Standard UNE 153010:2012, page 15).¹⁹

As it is possible to notice, this criterion seems to imply that sometimes music is not relevant for the comprehension of all parts of any audiovisual productions, however in both the first and in the last surveys carried out during this PhD project the (selected) Spanish Audience manifested their disappointment with reference to the subtitling of music on the Spanish Digital Television. The reason why the participants were not pleased with the subtitling services currently offered in Spain is due to the fact that music does not seem to receive much importance in the subtitles, where it is most often simply omitted. The (selected) Spanish Audience suggested that the mere presence of music and songs must be specified in the subtitles at all times, thus it represents one of the most relevant details of any multimedia production. Indeed, most participants of both surveys, regardless of their hearing impairment or not, affirmed that knowing whether there is music—or not—and maybe even what kind of music, really improves their comprehension of the programs they watch. Therefore, this criterion could be modified as following:

9.1 Music and songs

Whenever possible, music should be subtitled, using one or more of the following three contents:

- a) the type of music;
- b) the sensation it transmits;
- c) identification of the piece (title, author, etc.).

¹⁹ Original version: “9.1 Subtitulado de música: Se debería subtitular la música si es importante para ayudar al espectador a comprender la trama, utilizando uno o más de los tres contenidos siguientes: a) el tipo de música; b) la sensación que transmite; c) identificación de la pieza (título, autor...). Cuando se subtitula la música, se debe subtitular describiendo el tipo de música del que se trata y siguiendo el formato de un efecto sonoro: en la parte superior de la pantalla, entre paréntesis, la primera letra en mayúsculas y el resto en minúsculas. EJEMPLO (Música rock), (Adagio de Albinoni) (Música de terror)” (Standard UNE 153010:2012, page 15). Translation provided by PhD candidate Roberta Cepak.

When the music is subtitled, it should be subtitled describing the type of music and following the format of a sound effect: at the top of the screen, in parentheses, the first letter in capital letters and the rest in lower case.

The following subchapter, called ‘Format of subtitling music’, declares that “When music is subtitled, it should be subtitled following the format of a sound effect”. Since the format of music in subtitles was not appointed as problematic by the (selected) Spanish Audience, no new criterion would be added to this subsection.

Next, in the subchapter number 9.3, ‘Subtitling songs’, it is specified that “Song lyrics should be subtitled if it is important to help the viewer understand the plot”. As previously discussed in subchapter 9.1, the subtitling of music and songs is vital for the correct understanding of any audiovisual production, as the (selected) Spanish Audience affirmed in both the first and in the last surveys of this PhD project. However, not always is it possible to render explicit the song lyrics of all the songs present in a multimedia product. Therefore, the criterion of subchapter 9.3 should remain the same as it is, while no new criterion would be added to this subsection.

Subchapter number 9.4, called ‘Marking of songs’, clarifies that “When song lyrics are subtitled, the symbol of a musical note (or hashtag, if technology does not allow it) should be used at the beginning of each subtitle of the song and, in the final subtitle, a start and closing subtitle”. Since the format of subtitling songs was not mentioned by the (selected) Spanish Audience in the list of subtitles’ features to be changed and/or improved in the future, no new criterion would be added to this subsection.

Finally, subchapter number 9.5, called ‘Identification of characters in song lyrics’, explains that “In the songs sung by the characters, the same character identification technique should be used as in the rest of the audiovisual work”. As for the previous subsection, nothing was mentioned by the (selected) Spanish Audience with reference to the identification of characters during songs, therefore no new criterion would be added to this subsection.

The following chapter, called ‘Editorial criteria’, is the last section of the Standard UNE 153010:2012. After this chapter there are four annexes, called ‘Annex A (Normative) Measures related to colour’, ‘Annex B (Normative) Accurate calculation of Live subtitles’, ‘Annex C (Normative) Delay in Live subtitles’, ‘Annex D (Normative) Minimum strategy for Vocabulary economization’. The four annexes would not be discussed, since they are laws and not standards.

Chapter number 10, ‘Editorial criteria’, is divided into ten subsections, which are: ‘10.1 Text division’, ‘10.2 Invisibility of words’, ‘10.3 Use of suspensive dots’, ‘10.4 Grammatical and spelling criteria’, ‘10.5 Official languages of the State’, ‘10.6 Characters with specific speech features’, ‘10.7 Abbreviations and symbols’, ‘10.8 Numbering’, ‘10.9 Literality’, ‘10.10 Accuracy in live subtitles’.

The first subchapter of this section, called ‘Text division’, declares that

“The division of the text into subtitles and subheadings into lines should be done according to the following criteria:

- a) take advantage of the interpretative and silent pauses.
- b) take advantage of grammar breaks or punctuation signs.
- c) write in the bottom line the conjunctions and the links.
- d) do not separate in lines the nominal, verbal and prepositional phrases.”
(Standard UNE 153010:2012, page 16)²⁰

As far as the text division of subtitles is concerned, no complaints were made by the (selected) Spanish Audience in either the first nor in the second surveys of this PhD project. Therefore, no new criteria will be added to this subsection.

Subchapter number 10.2, called ‘Invisibility of words’, declares that “Words must not be divided in two lines of subtitles”. This subtitling feature did not raise any doubts in the (selected) Spanish Audience over the three phases of this PhD study, so no new criterion will be added to this subsection.

Next, subchapter number 10.3, called ‘Use of suspensive dots’, affirms that “Suspensive dots should only be used in accordance with grammatical rules and not to divide sentences into several subtitles”. As for the two previous subsections, this particular subtitling feature did not cause the (selected) Spanish Audience in the three phases of this PhD project any problem, therefore no new criterion will be added to this subsection.

In the following subchapter, called ‘Grammatical and spelling criteria’, it is stated that “The subtitling in Spanish should follow the criteria established by the Royal Spanish Academy paying special attention to compliance with the rules of grammar and spelling”. Since no complaints were made by the (selected) Spanish Audience in either survey, no new criteria will be added to this subsection.

Subchapter number 10.5, called ‘Official languages of the State’, explains that “For subtitling in the other official languages of the State, the equivalent criteria laid down by the institutions concerned must be applied”. As this subtitling feature did not represent an issue for the (selected) Spanish Audience, no new criteria will be added to this subsection.

In subchapter number 10.6, called ‘Characters with specific speech features’, it is declared that

“Speech misstatements should be corrected except when misstated words and grammatical or regional misstatements carry information relevant to the comprehension of the plot. In this case, inaccuracies will be subtitled verbatim in italics if technology permits or in quotation marks if not permitted.

²⁰ Original version: “10.1 División del texto: La división del texto en subtítulos y los subtítulos en líneas se debería hacer de acuerdo con los siguientes criterios: a) aprovechar las pausas interpretativas y silencios; b) aprovechar las pausas gramaticales o los signos de puntuación; c) escribir en la línea inferior las conjunciones y los nexos; d) no separar en líneas los sintagmas nominales, verbales y preposicionales” (Standard UNE 153010:2012, page 16). Translation provided by PhD candidate Roberta Cepak.

NOTE If the misspellings are so widespread that they are part of the characteristics of a character (for example, Tarzan) they can be subtitled literally, without quotation marks and without italics”. (Standard UNE 153010:2012, page 17)²¹

As no comment has been made by the (selected) Spanish Audience, in either the first nor in the second surveys, with reference to characters with special speech features in subtitles, no new criterion will be added to this subsection.

Subchapter number 10.7, called ‘Abbreviations and symbols’, states that “Abbreviations and symbols that cannot be reproduced must be written in letter”. As previously mentioned, the use of icons, symbols or emojis can be quite beneficial for the subtitling practice, because it avoids redundancy as well as waste of space in the subtitles. However, it is quite understandable that in case of impossibility of reproducing a specific symbol due to technology, for example, said symbol must be rendered clear through the use of words. Since no complaint was ever made by the (selected) Spanish Audience over the three phases of this PhD project, no new criterion will be added to this subsection.

The following subchapter, called ‘Numbering’, declares that

“Ordinal or cardinal numbers from zero to ten, inclusive, and nouns of numeral significance must be written with letters; except when accompanied by abbreviations, signs or symbols, are postponed to the noun to which they refer or are dates, hours, negative quantities or decimals. In the case of ordinals, except when they indicate postal addresses or levels”. (Standard UNE 153010:2012, page 17)²²

Once again, since the (selected) Spanish Audience did not request this particular subtitling feature to be modified, or altered in any way, in the future, no new criterion will be added to this subsection.

Subchapter number 10.9, called ‘Literality’, affirms that “Subtitles should be literal”. More explanations are provided, since this is quite a wide topic,

²¹ Original version: “10.6 Personajes con habla específica: Se deben corregir las incorrecciones en el habla excepto cuando las palabras mal pronunciadas y las incorrecciones gramaticales o regionales conllevan información relevante para el seguimiento de la trama. En este caso las incorrecciones se subtitularán de forma literal en cursiva si la tecnología lo permite o entre comillas si no lo permite. NOTA Si las incorrecciones son tan extendidas que forman parte de las características de un personaje (por ejemplo, Tarzán) se pueden subtitular de forma literal, sin entrecomillar y sin cursiva” (Standard UNE 153010:2012, page 17). Translation provided by PhD candidate Roberta Cepak.

²² Original version: “10.8 Numeración: Se deben escribir con letra los números ordinales o cardinales del cero al diez, ambos inclusive, y los sustantivos de significación numeral; excepto cuando vayan acompañados de abreviaturas, signos o símbolos, vayan pospuestos al sustantivo al que se refieren o sean fechas, horas, cantidades negativas o decimales. En el caso de los ordinales, excepto cuando indican direcciones postales o niveles” (Standard UNE 153010:2012, page 17). Translation provided by PhD candidate Roberta Cepak.

“NOTE 1 By literal it is understood that the subtitles are conformed to the locution or to its exact and proper meaning. In no case does the literal subtitle interpret the figurative meaning of the locution.

NOTE 2 The ultimate goal is to make subtitles as literal as possible, but complete literality is not always possible by maintaining a comfortable reading speed (see 5.1).

NOTE 3 When the speech speed of the speaker is very high, subtitling can be assisted by certain strategies to maintain synchronization, without loss of information (see annex D).

NOTE 4 It is important not to apply censorship criteria to the editing of subtitle texts.

NOTE 5 It is important that the text of the subtitles be adapted only for the purpose of introducing the subtitles (very long sentences, high speed of speech of the speaker, etc.).

NOTE 6 In live sports delays, it is advisable to avoid the redundancy of captioning with visual information.” (Standard UNE 153010:2012, page 18)²³

This criterion represents one of the most requested elements of the (selected) Spanish Audience with reference to the subtitling services currently offered on the Spanish Digital Television. Indeed, most participants in both the first and in the second surveys—especially volunteers with hearing impairments—claimed that subtitles do not always seem to report the same words as the ones pronounced by the characters onscreen, whereas the viewers wish that the subtitling services would report the same content in the subtitles. However, to write in the subtitles the exact same words pronounced by the actors in any multimedia production is not always possible, that is why no new criterion will be added to this subsection.

Lastly, subchapter number 10.10, called ‘Accuracy in live subtitles’, explains that “Live subtitles should be as precise as possible depending on the technological possibilities of

²³ Original version: “10.9 Literalidad: Los subtítulos deberían ser literales. NOTA 1 Por literal se entiende que los subtítulos son conformes a la locución o a su sentido exacto y propio. En ningún caso, el subtítulo literal interpreta el sentido figurado de la locución. NOTA 2 El objetivo final es que los subtítulos sean lo más literales que sea posible, pero la literalidad completa no siempre es posible manteniendo una velocidad de lectura cómoda (véase 5.1). NOTA 3 Cuando la velocidad de locución del orador es muy alta, el subtítulo correspondiente puede ayudarse de ciertas estrategias que permitan mantener la sincronización, sin pérdida de información (véase anexo D). NOTA 4 Es importante no aplicar en ningún caso criterios de censura para la edición de textos de subtítulos. NOTA 5 Es importante que la adaptación de los textos de los subtítulos se haga únicamente por cuestiones de presentación de dichos subtítulos (frases muy largas, alta velocidad de locución del orador, etc.). NOTA 6 En las retransmisiones deportivas en directo conviene evitar la redundancia del subtítulo con la información visual” (Standard UNE 153010:2012, page 18). Translation provided by PhD candidate Roberta Cepak.

the moment”. As for the previous criterion, also this norm reveals the impossibility of conveying in the subtitles an equal message to the one pronounced by the speakers onscreen. Therefore, the content of this subsection could be modified as following:

10.10 Accuracy in live subtitles

Live subtitles should be as precise and as literal as possible, depending on the technological possibilities of the moment. If both the length of the subtitle, and the time requested to produce it, allow it, verbatim can also be used in order to provide the identical content of the characters’ speech.

From this review it can be concluded that the Standard UNE 153010:2012 seems to keep satisfying the Spanish audience, even after a decade of its implementation. In order to further improve the accessibility of the multimedia content available on the Spanish Digital Television, thus creating *Inclusive Subtitling* for the majority of the people in the audience to enjoy, a few criteria could be added to the already existing guidelines. For example, the viewers could be given the possibility of customizing the subtitling services to their liking in terms of font size, colour and background colour, and subtitling’s speed. If these guidelines would be added to the Spanish Standard, the audience could customize their subtitles to their needs and preferences in order to improve the accessibility of the subtitling services. Moreover, the Spanish Standard could ask for the addition of two new Teletext pages, called ‘Vocabulary’ and ‘Plot’. Every day, the former could provide updated information regarding the meaning of all the most challenging words, metaphors and expressions used in each program transmitted on TV, while the latter would give the audience the possibility to access a short summary of each program available on TV.

As suggested on pages 172 and 173, the guidelines on the representation of sound effects in both pre-recorded and live subtitles could be modified to encourage subtitlers and stakeholders to provide the representation in the subtitles of all background sounds—noises, voices, sounds and music—at all times. If all background sounds would be reported on screen whenever possible, instead of whenever relevant, the Spanish audience would be able to better enjoy the multimedia content available on TV, as its accessibility would greatly improve.

The guideline regarding rhythm and synchronism of sound effects could be modified as stated above (page 174) to ensure synchronism between scenes and sound effects at all times, which could represent another important improvement in the accessibility of SDH in Spain. Indeed, the already existing criterion could be modified to include the words ‘at all times’ to underline the importance of synchronism between multimedia content and subtitles in each scene, otherwise subjected to the subtitlers’ and stakeholders’ discretion.

Another criterion that could be improved regards the representation of music and songs (page 177). The words ‘whenever possible’ could be added to the guideline to encourage subtitlers and stakeholders to acknowledge the presence of music and songs in the subtitles whenever possible, instead of whenever relevant, thus bettering the accessibility of Spanish SDH on TV.

Finally, the guideline regarding the accuracy in live subtitles could be modified as explained above (page 181), in order to give the subtitlers and stakeholders the possibility to also consider the use of verbatim in live subtitles. By doing so, live subtitles could report the same words as the ones used in live shows, thus reducing the loss of information otherwise caused by the reformulation of sentences in live subtitles.

6. Conclusions

This PhD thesis aims at reaching eight objectives (page 19) through a three-phase- research study. Each part of this research was designed independently from the other two, as each phase has its own goals and expectations. However, each phase was fundamental for the creation of the following one and the results obtained in each phase were taken into consideration for the design of the other ones as well.

Part I (page 64) was created in order to reach O1, O2 and O3; Part II (page 105) was meant to achieve O4; Part III (page 142) was carried out in order to complete O5 and O6; while O7, O8 and O9 were meant to be achieved after the conclusion of the three phases. The results retrieved from each part of this study were taken into consideration in the design of the following phases, as the results obtained from Part I were kept in mind in the design of Part II and the data retrieved from Parts I and II were acknowledged in the creation of Part III.

Part I consists of a survey about Subtitling for the Deaf and Hard-of-Hearing provided by the Spanish Digital Television, which was distributed in Spain among both hearers and people from the Deaf Community of Spain. The survey—which is divided into ‘Personal Data’, ‘Video-based survey’, and ‘Special needs’—aimed at testing the comprehension skills of the (selected) Spanish audience through six videos from three different types of audiovisual productions (advertising, short movies and feature films). Participants were asked to watch the clips without sound or subtitles and then answer some questions regarding: 1) the main message conveyed in each video; 2) the need for subtitles and sign language interpretation felt in each video; 3) the possible additional information that they wished they would have received in each video. Finally, the last section inquired the participants about their personal needs with regards to the subtitling services offered by the Spanish Digital Television.

The reason why the clips were presented to the participants without audio or subtitles was to allow all participants to take part in the study equally, since nobody could benefit from information provided by sounds/music or background noises. The lack of sound and subtitles led participants to struggle more in the comprehension of those clips with more dialogue (Videos 2, 5 and 6) as the respondents were required to process more information in comparison to those clips with less dialogue (Videos 3 and 4). Even though certain videos appeared easier to comprehend than others, participants only understood which one was the main message of clips 1 and 4, while for example Video 3 received the lowest number of correct answers in this clip. Still, Video 3 was thought to be one of the easiest clips to understand without sound or subtitles.

It is important to note that DHH respondents showed greater difficulty understanding the meaning of clips in comparison to the hearers, which proved hypothesis 1 (page 16) wrong. Due to their highly developed observational skills, DHH were expected to demonstrate a better comprehension of the videos in comparison to the hearers, who are usually not used to watching multimedia production without sound or subtitles. However, it seems that the Deaf and Hard-of-Hearing may not be able to interpret and understand the plot of any audiovisual production—advertisement, short movies, feature films—without the use of subtitles or sign language interpretation.

‘Accessibility’ is not a synonym for ‘usability’, as demonstrated by the fact that the participants had the possibility to use the videos by watching them in the survey, yet they could not properly access them without sound or subtitles. The lack of accessibility in the SSDHIN19 proved that to be able to access a good does not mean to own it, to watch it or to be able to reach it, but it means “being able to use, interact with, and enjoy that good” (Greco, 2018: 208). The ability to enjoy something is strictly connected to its accessibility, which leads to the conclusion that not being able to access a multimedia production makes it less enjoyable too. As stated in section ‘2. Theoretical Framework’ (page 23), to have physical access to an audiovisual production does not ensure the *access to the enjoyment* of that product. If the videos would have been presented to participants with subtitles or sign language interpretation, they could have become more accessible to the respondents. This is why, after each clip, participants were asked to declare whether they had felt the need for subtitles and/or sign language interpretation for a better understanding of the videos. All participants, DHH and hearers both, declared a clear need for subtitles in almost all six clips, with the exception of Video 4, where respondents were divided (page 82).

With regards the need for sign language (SL), the data show that most participants consider SL to be relevant in the comprehension of the clips. What’s more, the need for SL was felt slightly more by the hearers’ share in comparison to the DHH, as it was assumed. What is surprising is that DHH people are usually familiar with one—or more— sign languages, while generally hearers do not know any (page 71). Therefore, the fact that people who do not even speak any SL wished that they would have had SL interpretation for a better understanding of the clips highlights the importance of this service for the entire audience. It is important to note that SL was recognized as necessary in all clips, without a distinction between the three fields.

The last question of the ‘Video-based survey’ inquired the participants on the additional information that would have helped them understand the videos. The results highlighted the participants’ need to discover whether sounds, noises or voices were present in the background of the clips—which was the most voted answer in all six videos—thus confirming hypothesis 4 (page 17). The next most voted option was ‘a summary of the clips’ content’, which partially corroborated hypothesis number 2 (page 17), as the need for this additional information was felt mostly by hearing respondents in almost every clip. ‘A description of the characters’ resulted in the third most voted option, while the lowest percentages were found for the remaining options ‘something else’ and ‘nothing’. Although hearers were expected to value the content summary more than the acknowledgement of background sounds, this was not the case. The reason behind this lies in the fact that respondents might be afraid of ruining their enjoyment of any audiovisual production by discovering too much information in a summary, which would result in spoilers. The data retrieved from this answer show that the summary of the content is not as relevant to the audience as the lack of information regarding background sounds.

The questions regarding the personal needs of the audience with reference to the SDH provided by the Spanish Digital Television highlighted that both the overall readability and the general quality of the SDH service were considered acceptable. The data retrieved in these questions seemed to be almost the same for hearers and DHH participants. It is important to note that no distinction in the survey was made between live subtitles and pre-recorded subtitles, therefore the survey might have produced different results if such a distinction would have been made in the questions. Indeed, as the hearing population is not as familiar with SDH as the DHH share is, respondents may have been considering

pre-recorded programs only, where subtitles usually adjust to the UNE standard. Yet, live programs (sport, news, concerts etc.) might show more imperfections in their subtitles, as they are subtitled in real time.

As one might have predicted, the majority of DHH respondents affirmed to choose which TV channel to choose according to whether it offers Spanish SDH or not. The TV shows more frequently watched by the majority of participants—regardless of their hearing impairment—are movies/TV series, followed by news and documentaries, which confirms the findings of the *Long questionnaire in Spain* by Arnáiz-Uzquiza (2015), and *Long questionnaire in the UK* (2015a), directed by Romero-Fresco. With regards to the TV channels that the respondents watch most, they are: Antena 3, RTVE and La Sexta.

With reference to the possible aspects of the Spanish SDH that respondents would improve, the majority of them affirmed they would change the font size, the colour, the speed and the lexicon of subtitles. Respondents did not mention the reason why they wanted these elements to be modified or improved, they simply made a list of the subtitling characteristics that they wished would be better or different. It is important to note that DHH respondents considered the subtitles' lexicon should be improved, while hearers found the subtitles' speed the most challenging aspect of SDH. The data retrieved by this question suggest that the guidelines provided by the Standard UNE 153010:2012 regarding the font size, the colours and the speed of subtitles could be further improved.

As for the respondents' preferences about the identification of characters during a media production, most of them prefer colours, an opinion shared by DHH and hearers both. As explained in '4.1 f) Discussion of Part I' (page 100), the Spanish audience might be already used to the characters being identified through the use of colours, as in Spain colour is a common identification strategy, which could be the reason behind this preference.

The last question of SSDHIS19 addressed the creation of a new accessible TV page called 'Vocabulary' for the Spanish audience. This TV page could be added to the Teletext on Spanish Digital Television for anyone in the audience to access it via remote control and would include explanations regarding the meaning and use of metaphors that could be difficult for them. Although the opinions were divided, a slight majority stated that they would definitely use it, thus confirming in part hypothesis 3 (page 17).

As stated above (page 185), Part I was designed to achieve O1, O2 and O3. As for the first objective, I think that Part I achieved the goal of providing "an overview of the effectiveness of the Standard UNE 153010:2012 in Spain through a first survey, [...] answered by both hearers and d/Deaf informants". Indeed, the survey was completed by both hearers and DHH participants of Spain, who affirmed that the overall readability and the general quality of SDH in Spain are acceptable. Moreover, thanks to the answers collected it was possible to discover that subtitles and sign language are vital in the accessibility of multimedia content, which is an opinion shared by hearers and DHH both. Respondents declared their need for all background sounds (noises, voices and music) to be reported on screen at all times, and not only when the subtitlers or the stakeholders find them relevant, as stated in the Standard UNE 153010 (page 100). The (selected) Spanish audience also asked for the improvements of the font size, the colour, the speed and the lexicon of subtitles. While the identification of characters on screen suggested by the Standard UNE 153010:2012—the use of colours—was confirmed by the data collected in the survey. Finally, a slight majority of participants showed interest in the creation of a new TV page called 'Vocabulary'.

Personally, I believe that the survey SSDHIS19 was able to “provide a comparison of the SDH available on the Spanish Digital Television and the Spanish Audience’s requests retrieved in the first survey” (page 19) thus completing O2. As a matter of fact, by analysing the data retrieved in Part I, a comparison was generated between the guidelines provided in the Standard UNE 1503010:2012 and the needs and preferences of the (selected) Spanish audience. Thanks to this comparison, it was possible to determine the similarities and differences between the already existing guidelines and the answers collected in the survey. Finally, Part I confirmed “the validity of the Standard UNE 153010:2012 for the Spanish Audience through said survey” (page 19).

The aim of Part II was to achieve O4, which was to “provide a comparative analysis of the subtitling services offered on three well-known OTT platforms—Netflix, Amazon Prime Video and HBO—to highlight similarities and differences among them” (page 19). Thanks to this study, it was possible to retrieve valuable information regarding the subtitling services provided on Netflix, Amazon Prime Video and HBO, as well as the elements that made one platform more, or less, accessible to the viewers in comparison to the other ones. Three series were selected for this study: *Game of Thrones* (available on HBO), *La casa de papel* (Netflix) and *Grey’s Anatomy* (Amazon Prime Video). After analysing four episodes per series, it can be inferred that HBO is the only OTT streaming platform offering subtitles but not captions, while both Amazon Prime Video and Netflix provide the audience with both subtitling and captioning services. As stated above (page 38), ‘closed captions’ and ‘subtitles’ are very different subtitling services, which do not provide the audience with the same type of information. While subtitles are usually written for people who are learning a new language, closed captions are designed to be used by the Deaf and Hard-of-Hearing, among others. While the former report either the intralingual or the interlingual translation of the characters’ speech, as well as the one of signs or newspaper headlines, the latter provide the audience with extra information regarding the presence of background sounds and music. As HBO provides only subtitles to its viewers, it appears that among the three OTT platforms analysed in this study, it is the least accessible one, as far as the comparative analysis of the subtitling services available on *GOT* is concerned. On the other hand, Netflix seems to be the most accessible streaming platform among the three, as it presents the viewers with subtitles, captions and audio description. Indeed, by providing the audience with this extra accessibility option, Netflix ensures the most accessibility for a much wider audience with reference to the comparative analysis conducted in this research project.

As far as the audience’ experience is concerned, Amazon Prime Video is the only OTT platform that allows its viewers to customize the subtitles/captions in terms of colour, background colour and font size, while neither Netflix or HBO provide such an option. The possibility of customizing the subtitling services to one’s needs and preferences results to be a great help for the audience, who is able to increase the accessibility of the media production they choose to watch just by regulating the subtitles. It is worth noting that Netflix also gives its viewers the chance of increasing the accessibility of the streaming platform by allowing them to regulate the playback speed of all audiovisual content available.

With regards to music, background sounds and other noises, Netflix seems to be the only OTT platform that provides any notification of them in its subtitles or captions. Moreover, while in the first season of *La casa de papel*, the presence of background sounds and music

were reported in the subtitling services only when relevant, in the fourth season of the series all background sounds whose original source are invisible to the audience are always rendered explicit to the viewers in squared brackets, like [gun shots] or [helicopters] (page 140). From the data retrieved in the comparison between the first and the fourth seasons of *La casa de papel* it can be inferred that the relevance of background sounds and music has greatly increased over the years, which made the subtitling services provided by Netflix much more accessible to the audience. Amazon Prime Video and HBO generally do not offer such a service.

Nevertheless, while in the first season of *GOT* music is never reported in the subtitles, in the 16th season of the TV series, the lyrics of a song sung by one of the characters are reported in the subtitles. Therefore, also in the case of HBO it can be assumed that the importance of music for the correct understanding of multimedia content has intensified over the years.

With regards to the identification of a L3 in each TV series, no information could be retrieved regarding the standards applied by Amazon Prime Video, as no L3 is used in the four episodes analysed in this study. On Netflix the presence of a L3 is reported on screen through a change of the captions' format, while no interlingual translation is provided to the viewers. Finally, on HBO the presence of a L3 is notified through a change in subtitles' format—in S1 of *GOT* it happens through the use of the colour yellow instead of the usual colour white, while in S16 the subtitles' format would change from plain to bold—and through the interlingual translation of the characters' speech.

Finally, with reference to the number of lines allowed in the subtitling services provided by the three OTT streaming platforms, Amazon Prime Video and Netflix allow up to three lines, while HBO only tolerates two lines of subtitles as maximum.

Although this study could not determine with utmost certainty whether Netflix, HBO or Amazon Prime Video is the most accessible among the three OTT platforms here analysed, as a thorough analysis of each OTT platform would be required in order to reach such a conclusion, the data collected in Part II resulted to be extremely useful in the design of Part III of this research study, and it was also implemented in the review of the Standard UNE 153010:2012.

The aim of Part III was to achieve objectives 5 and 6 (page 19). As it can be seen in section '4.3 d) Discussion of Part III' (page 155), a second and last survey regarding *Inclusive Subtitling* was distributed in Spain among DHH and hearers both in order to obtain information regarding the audience's opinion on the subtitling services currently offered by the Spanish Digital Television, thus completing O5: "Provide the Spanish Audience's opinion on some of the features of the Standard UNE 153010:2012 through a second survey, which will be answered by both hearers and d/Deaf informants. The questions of the second survey will be based on the data retrieved in the previous two studies" (page 19).

With regards to the results obtained from Part III, the first question respondents had to answer was whether, or not, they usually watch multimedia content with the subtitling services provided by the Spanish Digital Television. Most participants confirmed to use them. As to the reasons for the use of SDH, 'accessibility' received the highest number of votes, 'language(s) comprehension' was the second most selected option, 'L2 learning' was put in third position and finally 'other reason' was left as fourth choice. 'Accessibility

reasons' was selected mostly by DHH volunteers, thus proving wrong once again hypothesis 1 (page 16), whereas it is worth noting that the majority of people who chose 'language(s) comprehension' were hearers.

Following, respondents were inquired about their satisfaction with the font size of Spanish SDH, which was declared to be adequate by most participants. It is worth noting that such an opinion was shared mainly by DHH respondents, while most hearers chose the option 'not sure'.

As for the possibility of customizing the font size of Spanish SDH through the use of the remote control, most participants affirmed to like this option. What's surprising, though, is that the majority of the respondents who selected it were hearers. Indeed, it was assumed that the possibility of customizing the font size of the subtitles would have interested both DHH and hearers equally, but that was not the case, thus confirming hypothesis 5 only in part (page 18).

With regards the possibility of customizing the colours of Spanish SDH through the use of the remote control, most respondents declared to like this option, thus confirming in part hypothesis 5 (page 18).

As for the possibility of customising the subtitling speed of Spanish SDH through the use of the remote control, also here most participants affirmed to like this option, thus confirming in part hypothesis 5 (page 18). Once again, even though it was assumed that the DHH respondents would have shown a great interest in the possibility of customizing the speed of the subtitles, they seemed to be divided on this topic.

With reference to the participants' preferences regarding the identification method of the various characters of multimedia contents, most participants chose the option 'use of colours', an opinion shared almost evenly by both the DHH respondents and the hearers, which confirmed the findings of Part I.

Following, respondents were inquired on which background sounds should be reported on screen by the Spanish SDH. The data retrieved in this question suggest that the vast majority of the Spanish Audience would appreciate all background sounds, music, voices and noises to be reported in the subtitles offered on the Spanish Digital Television, thus confirming once again hypothesis 4 (page 17).

As for the creation of a new TV page called 'Vocabulary', a slight majority of participants affirmed to like this option, an opinion shared almost evenly between hearers and DHH, thus confirming hypothesis 3 (page 17).

Finally, with reference to the creation of another new TV page called 'Plot', the majority of respondents affirmed to like this option, thus confirming hypothesis 2 (page 17).

From the data retrieved in Parts I, II and III it was possible to complete a review of the Standard UNE 153010:2012, which saw the creation of new guidelines that could be possibly integrated in the already existing Spanish Standard in the future, some of which include providing the Spanish Audience with the possibility of customizing certain features of the subtitling services offered by the Spanish Digital Television. The review of the Standard UNE 153010:2012 allowed me to achieve O6: "Provide a list of criteria for translators in the creation of future *Inclusive Subtitles*, based on the results obtained from all three studies" (page 19).

The three-phase-research study highlighted the fact that the Spanish Standard seems to please the (selected) Spanish audience as it is. However, the data retrieved from this PhD study also suggest that the Standard UNE 153010:2012 could make Spanish SDH even more accessible through the addition, and modification, of a few new guidelines.

In order to create *Inclusive Subtitling* for the majority of the people in the audience, thus increasing the *access to enjoyment* of the viewers, the viewers could be given the possibility of customizing the subtitling services to their needs and preferences in terms of font size, colour and background colour, and subtitling's speed. The Spanish Digital Television could add the two new Teletext pages 'Vocabulary' and 'Plot', which could be accessed every day through the use of the remote control, thus allowing the audience to increase the accessibility to the multimedia production they decide to watch, as well as the *access to enjoyment*. Indeed, if the audience would be given the chance to consult the meaning of words, metaphors or expression, as well as the plot of the audiovisual of their choice, the enjoyment of said audiovisual production would most probably deepen.

The guideline regarding the representation of sound effects in both pre-recorded and live subtitles could be modified to encourage subtitlers and stakeholders to provide the representation in the subtitles of all background sounds at all times (page 172), as the results obtained in both Part I and Part III showed the relevance of background sounds in the understanding of the multimedia content.

The criterion about rhythm and synchronism of sound effects could also be modified as stated on page 174 to ensure synchronism between scenes and sound effects at all times. Indeed, the lack of synchronism between scenes and sound effects reduces the *access to enjoyment* of the audience, who cannot properly follow the development of the multimedia content of their choice.

The guideline regarding the representation of music and songs in *Inclusive Subtitling* could be modified by adding the words 'whenever possible' to encourage subtitlers and stakeholders to acknowledge the presence of music and songs in the subtitles whenever possible, instead of whenever relevant, thus bettering the accessibility of the subtitling services (page 177).

Lastly, in the criterion about the accuracy in live subtitles it could be added that subtitlers and stakeholders could also consider the use of verbatim in live subtitles, thus reporting the same words as the ones used in each live performance, which could help reducing the loss of information caused by the reformulation of sentences in live subtitles (page 182).

The survey used in Part I could be used again as a quantitative method for other researchers to use, which means that objective 7 has been completed: "[To] transform the survey of Part I of the PhD project into a quantitative method for other researchers to use" (page 19). Furthermore, I think that this three-phase-research has contributed, within its own limitations, to the fields of AVT and SDH, thus achieving O8: "[To] open a new door to the world of the Deaf and HoH in a new and direct way by scholars and translators" (page 19).

Certainly, this PhD project is not without limitations. To begin with, the empirical scope of this study is limited and therefore it would be unwise to make valid generalizations about the results obtained. With reference to Part I and Part III, a larger population would need to be tested to generalize the findings. Moreover, it would have been interesting to

see whether the results would have been different if a higher number of seniors would have taken part in the surveys. In Part I it would be desirable to expand

the number of videos analyzed and/or include other questions so as to provide more general results. Moreover, in order to determine whether Netflix, Amazon Prime Video and HBO is the most accessible OTT platform, a thorough analysis of each of streaming platform would be required. The accessibility of each streaming platform should be taken into consideration, with regards to the accessibility services provided on each main page. Moreover, the presence, of lack thereof, of audiodescriptions services or other accessibility services should be investigated, and multiple audiovisuals should be analysed in order to generalize the data retrieved. These limitations are a blueprint for further research which might help obtain a deeper understanding of the needs and wishes of the Spanish audience regarding the subtitling services currently offered on the Spanish digital television.

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ANNEXES

Annex I

Survey nr. 1

Personal data

1. Age: 18-30 / 31-45 / 46-55 / 56-65 / Over 65

2. Gender:

Female Male I'd rather not say

3. Mother tongue (More than one option is possible):

Spanish Catalan LSE LSC Other

4. Most used language(s) and means of communication (More than one option is possible):

Spanish LSE LSE + Lip reading Lip reading
 Catalan LSE LSC + Lip reading Other

5. Education:

Primary School Technical/Vocational School Other
 Secondary School University

6. Occupation:

I study I'm retired I'm studying and working
 I work I'm unemployed Other

7. Are you...?

Prelingual d/Deaf: 0-2 years old
 Postlingual d/Deaf: + 4 years old

- Hard-of-Hearing
Hearer

8. When did you become d/Deaf or Hard-of-Hearing?

- From birth 5-19 years old + 50 years old
 - 2 years old 20-29 years old I'm a hearer
 2-4 years old 30-49 years old

9. Do you use a hearing aid/ or cochlear implant?

- Hearing aid Cochlear implant None of them

10. How many hours a day do you watch TV?

- 30 minutes 1-2 h + 3h
 30 mins/ 1h 2-3 h

Video-based survey (first two videoclips)

Videoclip 1: 2 minutes 31 seconds

1. Difficulty of clip n. 1 (from 1 to 5):

- 1 (very easy) 2 3 4 5 (very difficult)

2. What is the main meaning of clip n. 1?

- It's a clip about poverty
 It's an advertisement about unemployment among the elderly
 I'm not sure

3. Does clip n. 1 need subtitles?

- Yes, it does.

- No, it does not.
- I don't know for sure, but I would have understood more with subtitles.

4. Does clip n. 1 need sign language interpretation?

- Yes, it does.
- No, it does not.
- I don't know for sure, but I would have understood more with SL interpretation.

5. Which of the following additional information would you have appreciated while watching clip n. 1?

- Nothing
- A summary of the clip
- A description of the characters
- To be aware of the presence of music/sounds/voices
- Other

Videoclip 2: 1 minute 17 seconds

1. Difficulty of clip n. 2 (from 1 to 5):

- 1 (very easy) 2 3 4 5 (very difficult)

2. What is the main meaning of clip n. 2?

- It's an advertisement about the political party 'Podemos'
- It's an advertisement about the amount of Ubers in Spain
- I'm not sure

3. Does clip n. 2 need subtitles?

- Yes, it does.
- No, it does not.
- I don't know for sure, but I would have understood more with subtitles.

4. Does clip n. 2 need sign language interpretation?

- Yes, it does.
- No, it does not.
- I don't know for sure, but I would have understood more with SL interpretation.

5. Which of the following additional information would you have appreciated while watching clip n. 2?

- Nothing
- A summary of the clip
- A description of the characters
- To be aware of the presence of music/sounds/voices
- Other

Following two videoclips

Videoclip 3: 2 minutes 2 seconds

1. Difficulty of clip n. 3 (from 1 to 5):

- 1 (very easy) 2 3 4 5 (very difficult)

2. What is the main meaning of clip n. 3?

- Honesty is very important to this family
- Honesty is not important to this family

- I'm not sure

3. Does clip n. 3 need subtitles?

- Yes, it does.
- No, it does not.
- I don't know for sure, but I would have understood more with subtitles.

4. Does clip n. 3 need sign language interpretation?

- Yes, it does.
- No, it does not.
- I don't know for sure, but I would have understood more with SL interpretation.

5. Which of the following additional information would you have appreciated while watching clip n. 3?

- Nothing
- A summary of the clip
- A description of the characters
- To be aware of the presence of music/sounds/voices
- Other

Videoclip 4: 1 minute 34 seconds

6. Difficulty of clip n. 4 (from 1 to 5):

- 1 (very easy) 2 3 4 5 (very difficult)

7. What is the main meaning of clip n. 4?

- We must stop bullying in schools
- Bullying is not an important social issue

- I'm not sure

8. Does clip n. 4 need subtitles?

- Yes, it does.
- No, it does not.
- I don't know for sure, but I would have understood more with subtitles.

9. Does clip n. 4 need sign language interpretation?

- Yes, it does.
- No, it does not.
- I don't know for sure, but I would have understood more with SL interpretation.

10. Which of the following additional information would you have appreciated while watching clip n. 4?

- Nothing
- A summary of the clip
- A description of the characters
- To be aware of the presence of music/sounds/voices
- Other

Last two videoclips

Videoclip 5: 1 minute 10 seconds

1. Difficulty of clip n. 5 (from 1 to 5):

- 1 (very easy) 2 3 4 5 (very difficult)

2. What is the main meaning of clip n. 5?

- The man is looking for the culprit of a crime
- The man is looking for a volunteer to solve a problem
- I'm not sure

3. Does clip n. 5 need subtitles?

- Yes, it does.
- No, it does not.
- I don't know for sure, but I would have understood more with subtitles.

4. Does clip n. 5 need sign language interpretation?

- Yes, it does.
- No, it does not.
- I don't know for sure, but I would have understood more with SL interpretation.

5. Which of the following additional information would you have appreciated while watching clip n. 5?

- Nothing
- A summary of the clip
- A description of the characters
- To be aware of the presence of music/sounds/voices
- Other

Videoclip 6: 1 minute 44 seconds

1. Difficulty of clip n. 6 (from 1 to 5):

- 1 (very easy) 2 3 4 5 (very difficult)

2. What is the main meaning of clip n. 6?

- The boy is looking for a missing relative
- The boy is helping the ladies of the village with their research
- I'm not sure

3. Does clip n. 6 need subtitles?

- Yes, it does.
- No, it does not.
- I don't know for sure, but I would have understood more with subtitles.

4. Does clip n. 6 need sign language interpretation?

- Yes, it does.
- No, it does not.
- I don't know for sure, but I would have understood more with SL interpretation.

5. Which of the following additional information would you have appreciated while watching clip n. 6?

- Nothing
- A summary of the clip
- A description of the characters
- To be aware of the presence of music/sounds/voices
- Other

Special needs survey

1. Is it easy to read the subtitles offered by the Spanish Digital Television?

- Yes, it is. No, it is not. Sometimes it is.

2. How would you evaluate the quality of the subtitles offered by the Spanish Digital Television, where 1= Very deficient and 5= Excellent?

1= Very deficient 2 3 4 5= Excellent

3. Do you choose TV programs based on whether they have subtitles or not?

Yes, I do. No, I do not. It depends.

4. Which TV shows do you watch most often? (More than one option is possible)

News Talk shows or debates Sport
 Other
 Movies or TV series Quiz shows Documentaries

5. Which TV channels do you watch most often? (More than one option is possible)

RTVE Telecinco TV3 Other Antena 3
 La Sexta DKiss

6. What should be improved in subtitles for the Deaf and Hard-of-Hearing? (More than one option is possible)

Subtitling speed Foreign languages should be identified
 Lexicon Subtitles' position on the screen
 Format (size and/or colour) Nothing
 More info should be added Other

6a. If you chose "other", please write here your suggestions for improvement.

7. How would you prefer the characters to be identified?

Colours Dash Other
 Labels Without ID

7a. If you chose "other", please write here your suggestion for improvement.

8. Would you use a specific page to consult the vocabulary used in each television program, if it existed?

- Yes, I would. No, I would not.

Thank you for your time!

Answers Questions 6a & 7a

The respondents who chose the option ‘something else’ in question number 6a of the ‘special needs’ section could specify what they were referring to and the answers obtained are as follows:

1. Respondent Number 6: “Information about the noises present in the scenes should be included”;
2. Respondent Number 24: “The characters’ speech and the corresponding subtitles should coincide”;
3. Respondent Number 28: “No information should be removed or censored”;
4. Respondent Number 44: “Information of the noises, music and other sounds present in the background should be included”;
5. Respondent Number 50: “The problem with subtitles is that they usually do not correspond to the real words used by the characters on screen”;
6. Respondent Number 60: “Live subtitling is always full of mistakes: translators make up words that do not make sense, which leads to a misinterpretation of the entire message. At times this is the reason why I decide to stop watching a certain TV show or movies. The fabrication of words or the creation of sentences with no sense (grammatical mistakes, lip reading that does not match the subtitles...) makes me feel like a ‘second-class-viewer’. Moreover, in animated movies many words are not faithful to what is presented on screen, which leads to a loss of trust from the viewers’ part”;
7. Respondent Number 64: “I did not choose the option ‘something else’, but I would like to specify that the majority of TV shows do not offer any subtitles and, if they do, the subtitle is predictive text which does not match the scene on screen, as if it would be a mix of Youtube and Google Translate. Some work related to these problems should be carried out, because it would represent a great help for the

d/Deaf's enjoyment. I usually watch Netflix or Amazon Prime Video and on both platforms the selection of subtitles and language happens by default. I did not use to use Digital Television for the reasons above mentioned: the SDH service offered to the audience is either non existing or simply not adequate”;

8. Respondent Number 97: “Translators should improve the colours used to identify the various characters on screen and they should add a notification of noise/music/etc. on the upper part of the screen, if any of those are present”;
9. Respondent Number 101: “Translators should write in all media production, TV shows or news what it has been said exactly the way it was said, without censoring the content in the first place just to say something else later or writing something else without having finished explaining what has happened earlier. This sort of things happens all the time and that is why I do not follow the news. Indeed, what usually happens is that what is written in the subtitles is different from what you hear on screen, the words do not match the content of the speech. This happens also in the movies, on Youtube... I am tired of saying that they should improve the service offered to the audience, because translators make up things that have nothing to do with what really happens. Translators skip many

words, while they add other ones. Generally, I see this happening on many TV channels, but it also happens on Youtube, which is a pity because there subtitles usually match with the speech. However, even on that platform things are mixed. I am Hard-of-Hearing on one ear, on which I have a hearing aid that allows me to hear till 80% or 90%, while I am 100% d/Deaf on the other one. In my opinion, subtitles' rate should be slower, because sometimes it is difficult to keep up with them. Moreover, I think that subtitles should match what has been said on screen, or translators should at least rewrite the speech in a similar way that would be understood by a d/Deaf person. Additionally, I think that the black background and the colours that each character has are very important on screen. Also, subtitles should be bigger, not much, but the right size, and they should always be written at the bottom of the screen, never on top or in the middle. And please, since you're on Youtube, could you please talk with someone and ask to start subtitling there too? It is very stressful to me, because on Youtube there are movies, series and videos from which you can learn a lot, but they are usually all in English and never in Spanish. Thank you for doing this, I hope I have been helpful.”;

10. Respondent Number 103: “I want the SDH service to be efficient, like everybody else is saying. I want to read everything that has been said without the text to be adapted and made easier for d/Deaf people”;
11. Respondent Number 104: “Translators should write SDH that matches what has been said on screen”.

Respondents who chose the option ‘something else’ in question number 7a of the ‘special needs’ section had the possibility to specify what were they referring to and the answers we obtained are as follows:

1. Respondent Number 38: “Translators should use colours to identify all the various characters the same way, without making a distinction between good and bad characters”;
2. Respondent Number 64: “Screenplays or names of the characters talking, for example”;
3. Respondent Number 103: “Translators should also write the lyrics of the songs present in the media production”.

Annex II

Survey nr. 2

Personal data

1. **Age:** 18-30 / 31-45 / 46-55 / 56-65 / Over 65
2. **Gender:** Female Male I'd rather not say
3. **Mother tongue (More than one option is possible):**
 Spanish Catalan LSE LSC Other
4. **Most used language(s) or other means of communication (More than one option is possible):**
 Spanish LSE LSE + Lip reading Lip reading
 Catalan LSE LSC + Lip reading Other
5. **Education:**
 Primary School Technical/Vocational School Other
 Secondary School University
6. **Occupation:**
 I study I'm retired I'm studying and working I work
 I'm unemployed Other
7. **Are you...?**
 Prelingual d/Deaf: 0-2 years old
 Postlingual d/Deaf: + 4 years old

- Hard-of-Hearing
Hearer

8. When did you become d/Deaf or Hard-of-Hearing?

- From birth 5-19 years old + 50 years old
 - 2 years old 20-29 years old I'm a hearer
 2-4 years old 30-49 years old

9. Do you use a hearing aid/ or cochlear implant?

- Hearing aid Cochlear implant None of them Another hearing aid

10. How many hours a day do you watch TV?

- 1h 1-2 h 2-3h +3h

11. In what language(s) do you watch television?

(More than one option is possible)

- Catalan Spanish English Original version Other

Subtitling Features of the Spanish Digital Television

1. Do you use subtitles when you watch TV?

- Yes, I do. No, I do not. Sometimes I do.

2. If you chose 'Yes, I do', why do you use them?

- Accessibility—I need subtitles to access audiovisual content
 Language Comprehension—To improve comprehension when I watch a program in the original version and/or in a language other than my native language
 Language learning—To learn a foreign language
Other

3. How would you evaluate the size of the subtitles offered by the Spanish Digital Television?

Too small About right Too big I'm not sure

4. Would you like to regulate the size of the subtitles through your remote control?

Yes, I would. No, I would not. Maybe I would.

5. Would you like to regulate the colour of the subtitles through your remote control?

Yes, I would. No, I would not. Maybe I would.

6. Would you like to regulate the speed of the subtitles through your remote control?

Yes, I would. No, I would not. Maybe I would.

7. How would you prefer the characters to be identified?

Colours Dash Other Labels Without ID

7a. If you chose "other", please write here your suggestions for improvement.

8. What sound effects should be identified?

Noises Voices Music All sound effects None

9. Would you like to consult the vocabulary of each television program through teletext, if possible?

Yes, I would. No, I would not. Maybe I would.

10. Would you like to consult a summary of each television programme via teletext, if possible?

Yes, I would. No, I would not. Maybe I would.

Thank you for your time!

Answers Question 7a

All those participants who selected the option 'other' were asked to explain their choice by writing their personal suggestions on how to best identify the characters of multimedia content. Their opinions are reported as following:

- Volunteer 19 suggested a combination of colours and names;
- Volunteer 24 suggested sign language;
- Volunteer 37 suggested a written explanation;
- Volunteer 96 suggested the first letter of the character's name;

Volunteer 114 suggested the use of names, as well as a 'creative subtitling style' that would allow subtitles/captions to float under each character's face when they're speaking.

List of abbreviations and acronyms in alphabetical order

AD	Audiodescription
ADA	Americans with Disabilities Act
<i>AEDEMO</i>	<i>Asociación Española de Estudios de Mercado y Opinión</i>
AENOR	Association of Normalization and Certification
AEPAE	Association for the Prevention of Bullying at School
AFM	Accessible Filmmaking
AODA	Accessibility for Ontarians with Disability Act
AS	Accessibility Studies
ASL	American Sign Language
AVT	Audiovisual Translation
AVTS	Audiovisual Translation Studies British
BSL	Sign Language
CC	Closed Captions
<i>CESyA</i>	<i>Centro Español del Subtitulado y la Audiodescripción</i>
CIREP	Comisión Institucional de Revisión Ética de Proyectos
COVID-19	Coronavirus
CRPD	Convention on the Rights of Persons with Disabilities
CVAA	Communication and Video Accessibility Act
DHH	Deaf and Hard-of-Hearing
DVT4ALL	Digital Television for All
EAPN-ES	European Anti-Poverty Network of Spain
EASIT	Easy Access for Social Inclusion Training
EEG	Electroencephalography
FCC	Federal Communication Commission
<i>FESOCA</i>	<i>Federació de Persones Sordes de Catalunya</i>
<i>GECA</i>	<i>Gabinete de Estudios de Comunicación Audiovisual</i>
GOT	Game of Thrones
HoH	Hard-of-Hearing
H2020	Horizon 2020
ID	Identification
L1	Language number 1
L2	Language number 2
L3	Language number 3
L3ST	Language number 3 Source Text
L3TT	Language number 3 Target Text
<i>LSC</i>	<i>Lengua de Signos Catalana</i>
<i>LSE</i>	<i>Lengua de Signos Española</i>
MA	Media Accessibility
OTT	Over-The-Top
PWHI	People with hearing impairment
SDH	Subtitling for the Deaf and Hard-of-Hearing
SL	Source Language

ST	Source Text
SSDHIS19	Survey on SDH in Spain 2019
TT	Target Text
VOD	Video on Demand
WCAG	Web Content Accessible Guidelines
WHO	World Health Organization