# CHAPTER Ⅱ

# REVIEW OF THE LITERATURE

## Introduction

This chapter presents the literature pertaining to my research study, which focuses on media accessibility for individuals with sensory impairments, particularly those with hearing impairments. The study aims to ensure equal access to AV media through the use of SDH. This chapter is organized into four main sections: (a) AV text, (b) AVT, (c) AVT and accessibility and (d) SDH.

## AV Text

Communication is a fundamental aspect of daily life, and its origins can be traced back to the human need for social interaction. The history of communication can be said to begin with the development of language. It is crucial to consider several factors in any communication process, as any hindrance in the transmission of messages can disrupt effective communication.

There are various forms of communication acts, and text can be considered as one of them. Therefore, AV texts, which encompass both auditory and visual elements, can be regarded as a distinct form of communication. AV texts encompass different genres, each characterized by its unique mode of expression. The emergence of new types of texts has given rise to new relationships between what is commonly referred to as source and target texts, which can be observed through translation across various media. The rapid proliferation of AV texts has brought about changes in the field of AVT during the late 20th century (Remael, 2010).

Modern society is heavily influenced by technology and mass media, and the advancements in technology have greatly improved international and intercultural communication. The rise of new technologies, the expansion of the Internet, and the proliferation of electronic devices have facilitated the global distribution of AV products, leading to the emergence of diverse target audiences. As a result of the social phenomenon of globalization, translators have been confronted with the pressing need to deliver high-quality translations of films.

The demand for accessible film dialogue translation emerged following the introduction of sound in films during the 1920s (Chiaro, 2009). Translating AV works involves the transfer of both verbal and non-verbal elements, encompassing visual and acoustic aspects, which differ from the translation of written texts. The combination of these various visual and acoustic elements, whether verbal or non-verbal, aims to create a cohesive final effect (Chiaro, 2009). AV products possess a polysemiotic nature as they employ both visual and audio communication channels, incorporating verbal and non-verbal signs that operate simultaneously in generating meaning (Chaume, 2004).

It is crucial for translators to have a comprehensive understanding of the interplay between these diverse codes and to consider them seriously when transferring them to another language and culture. Therefore, the development of an analytical model becomes essential for researchers, professionals, and students in this field. There are various signifying codes that can have a direct impact on translation, including the linguistic code, paralinguistic code, music and sound effect code, sound arrangement code, iconographic code, photographic code, planning code, graphic codes, and syntactic code (Chaume, 2004).

* *Linguistic code*:in an audiovisual text is a signifying code shared with all texts that can be translated.
* *Paralinguistic* codes: refer to a series of symbols which are used as a matter of convention among editors.
* *Musical code and the Special effects code*: pertain to songs or music in films, which often require adaptation in translation.
* *Sound arrangement code*: involves the translation and adaptation of diegetic (story-related) and non-diegetic (not part of the story) sounds, both on-screen and off-screen.
* *Iconographic code*: is the visual channel through which relevant information is conveyed. Generally, iconographic symbols are not linguistically translated unless accompanied by verbal explanations.
* *Photographic code*: relates to changes in lighting, color usage (such as color vs. black and white), and the conventional meaning of colors.
* *The planning code*: is significant in dubbing, where the translator must find a text that respects the lip movements of the on-screen character, particularly during the opening and closing of the lips.
* *Graphic codes*: involve the presentation of written language on the screen.

Chaume (2004) discusses these signifying codes, and Gambier (2018) applies a "flexible schema" to propose subsequent actions. Table 2 in Gambier's work classifies 14 semiotic codes significant in the meaning-making process.

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| --- | --- | --- |
| **Elements** | **Audio channel** | **Visual** **channel** |
| **Verbal Elements**  **(signs)** | * linguistic code (dialogue, monologue, comments/voices off, reading) * paralinguistic code (delivery, intonation, accents) * literary and theatre codes (plot, narrative, sequences, drama progression, rhythm) | * graphic code (written forms: letters, headlines, menus, street names, intertitles, subtitles) |
| **Non-Verbal Elements**  **(signs)** | * special sound effects/sound arrangement code * musical code * paralinguistic code (voice quality, pauses, silence, volume of voice, vocal noise: crying, shouting, coughing, etc.) | * iconographic code * photographic code (lighting, perspective, colours, etc.) * scenographic code (visual environment signs) * film code (shooting, framing, cutting, editing, genre conventions, etc.) * kinesic code (gestures, manners, postures, fascial features, gazes, etc.) * proxemic code (movements, use of space, interpersonal distance, etc.) * dress code, including hairstyle, makeup, etc. |

*Table 2.Semiotic codes of a film*

## AV Translation

AVT has evolved from a concept of simply substituting messages between source and target languages to a more inclusive and adaptable approach that incorporates new research and technologies in the field of translation studies. AVT is a distinct subfield of translation studies, defined as the translation of messages into AV format (Cattrysse, 2001). It is a dynamic and expanding area of study, as it closely follows the rapid advancements in technology. Unlike other forms of translation, AVT possesses specific characteristics that require specialized approaches and translation strategies. It involves the intricate interplay between verbal and nonverbal communication, utilizing complex systems of signs such as images, sounds, colors, kinesics, and narrative to convey meaning. AV texts are a combination of visual and acoustic elements as a communication act where the synchronization of verbal and nonverbal components is crucial (Zabalbeascoa, 2008). Translators of AVT must consider the four channels of information during the translation process, which encompass the verbal auditory channel, non-verbal auditory channel, verbal visual channel, and non-verbal visual channel (Delabastita, 1989; Gottlieb, 1998).

AVT is considered a multi-semiotic program (Chaume, 2004, Gambier2003) where various signifying codes contribute to the creation of meaning in an AV text. Translating AVT without considering these codes results in a partial translation (Chaume, 2004). Gambier (2018) introduced a flexible scheme for categorizing different types of AV texts.

Research on the needs, reception, and accessibility of AV translation has been somewhat limited, leading to potential dissatisfaction among viewers with AV services. Scholars in this field strive to address the needs of audiences and have an impact on their experience. While AV research initially emerged within the realm of film and media studies in the 1930s, it began to be studied from a translation perspective in the 1980s. The first research publications on AV translation appeared in the mid-1950s and 1960s, but significant growth in research occurred in the early 1990s (Remael, 2010). The field of AV translation encompasses a wide range of AV products that require the translation of verbal components from one language to another (Chiaro, 2013).

Further research needs to continue exploring the needs and preferences of viewers, as well as addressing accessibility issues, to enhance the quality and satisfaction of AV translation services.

AV translation encompasses a wide range of media or formats, considering the various channels involved in the source text. Unlike terms such as "screen translation," which primarily focuses on translation for screens and may exclude theater or radio, and "multimedia," which is often associated with information technology, the term "AV translation" is more comprehensive (Gambier, 2003; Orero, 2004). AV translation covers the translation of various types of media and also encompasses new areas of media accessibility, SDH, and AD for the visually impaired (Orero, 2004). It acknowledges the multisemiotic nature of contemporary AV content, highlighting the fact that broadcast programs incorporate multiple modes of communication (Gambier, 2003). The term "AV translation" thus serves as an umbrella term that encompasses a broader range of media and considers the diverse channels and modes of communication involved in translation.

## AVT and Accessibility

Indeed, communication has been an essential aspect of human interaction throughout history. Humans have employed various means to convey messages to one another. The earliest forms of communication consisted of natural language, which encompassed mimicking sounds, drawing, utilizing symbols, and oral speech. These methods allowed individuals to express themselves and transmit information. Oral verbal communication is considered the primary and most natural form of human interaction. Conversations serve as the foundation of communication, where participants decode messages through words, sensory cues, and other signs. Verbal communication involves the use of spoken or written language to express thoughts, ideas, and information.

In addition to verbal communication, humans also utilize non-verbal sign systems to convey messages. Non-verbal communication includes facial expressions, body language, gestures, tone of voice, and other non-linguistic cues. These non-verbal signs complement verbal communication and often provide additional meaning or emphasis to the conveyed message.

Overall, human communication can occur through verbal means, non-verbal sign systems, or a combination of both. These diverse forms of communication enable individuals to effectively exchange information, express emotions, and foster social connections.

The invention of writing indeed had a profound impact on human communication. It enabled individuals to engage in written communication, expanding the reach of their messages beyond direct and oral interactions. With writing, people were able to communicate with others who were not physically present or who lived in different periods. This breakthrough significantly broadened the scope of human communication and facilitated the sharing of knowledge, ideas, and experiences across time and space.

Effective communication involves the active participation of all participants, and it may or may not engage all the senses. Constraints can arise in communication when any aspect hinders the complete engagement of all senses. These constraints can be categorized as internal or external (Zabalbeascoa, 2010). Internal constraints pertain to individuals' difficulties in sensory perception. For example, individuals who are deaf, hard of hearing, blind, or have other sensory impairments may face challenges in perceiving certain forms of communication. These constraints can be addressed through various means, such as providing subtitles or sign language interpretation for individuals with hearing impairments, or audio description for individuals with visual impairments. External constraints, on the other hand, stem from societal, technological, or financial factors. These constraints might include limited access to communication tools, lack of infrastructure, or financial barriers that prevent certain individuals or communities from fully participating in communication processes. Overcoming external constraints requires efforts to improve accessibility, promote inclusivity, and provide resources and support to ensure that communication is available to all. By recognizing and addressing both internal and external constraints, society can work towards more inclusive and effective communication, ensuring that individuals with diverse abilities and circumstances can fully engage in the exchange of information and ideas.

Equality of opportunity is a fundamental right for all individuals, regardless of their differences. Achieving gender equality and ensuring equal treatment between women and men is a crucial aspect of modern society (Neves, 2005). Additionally, it is important to pay special attention to the needs of people with disabilities, as outlined in the United Nations Convention on the Rights of Persons with Disabilities (UN, 2006). Article 9 of the Convention, which focuses on accessibility, emphasizes the obligation of signatory countries to provide equal conditions and rights in civil, political, economic, social, and cultural aspects for individuals with disabilities (McCallum, 2012). It stresses the importance of ensuring equal access to information for people with disabilities and highlights the need for the development of standards and guidelines, as established by the International Union of Communities, for all state parties to follow (McCallum, 2012).

When it comes to AV media, equal access is crucial for all members of society, including individuals with special needs. One such group is those with hearing impairments. It is essential to ensure that individuals who are DHH have equal access to AV content, similar to hearing individuals. This can be achieved through the provision of accessible services such as closed captions or subtitles, sign language interpretation, and other forms of assistive technologies. By promoting accessibility and equal access to AV media, we can foster inclusivity and ensure that individuals with hearing impairments can fully participate in and enjoy AV content. This aligns with the principles of equality and non-discrimination, as well as the rights outlined in international conventions and agreements.

Media accessibility, as defined by Diaz Cintas (2005), aims to make AV content accessible to individuals who would otherwise face barriers to accessing it. This concept has gained global recognition, and many countries have implemented regulations and standards to ensure that programs are broadcast with support for audiences with sensory impairments. While the initial research on media accessibility primarily took place in English-speaking countries, the field has expanded and gained importance in numerous countries due to advancements in research and the emergence of new modalities. In Iran, AV research and media accessibility are relatively new areas, and research in this field is considered a progressive and innovative step.

Various modalities exist for AV translation, with AD for the visually impaired and subtitles for the DHH being the two most well-known forms. In this research, the focus is on the SDH.

Creating high-quality subtitles for DHH, adhering to international guidelines, is crucial for effective media accessibility. Subtitlers must possess a deep understanding of the characteristics and expectations of this community, which has been the subject of extensive research in other parts of the world. However, the evaluation of subtitle quality for DHH has not been conducted in Iran due to the lack of local guidelines for subtitle preparation. It is hoped that this research will evaluate the quality of produced subtitles and determine whether subtitlers have employed a consistent approach in their preparation. This assessment will contribute to improving the standards of subtitling and enhancing media accessibility for the DHH community in Iran.

Indeed, accessibility has become a crucial aspect of the telecommunications industry, including AV media (Gambier, 2006). The concept of accessibility primarily revolves around ensuring that individuals with disabilities have equal access to transportation, facilities, media, and other resources. It has gained significant attention within the field of AV translation (Bogucki, 2013). Media accessibility, as a broader concept, aims to make AV content readily accessible to individuals who cannot access it in its original form (Greco, 2016). This includes individuals with sensory impairments, such as the visually impaired and the DHH.

Among the various forms of accessibility, AD for the visually impaired and SDH are the most commonly known methods that facilitate access to AV media. In this context, the focus will be on SDH. It is important to note that hearing loss can vary across a spectrum, ranging from mild to profound. Neves (2008b) highlights that what distinguishes subtitles for the DHH is that the primary audience, the deaf community, has limited or no access to sound and, in some cases, may struggle with reading skills, which affects their ability to process the same quantity and quality of textual information as hearing readers (Jensema et al., 1996). SDH possesses specific linguistic, semantic, and syntactic features that make subtitles more accessible to this audience (Neves, 2005). The issue of constrained communication and accessibility is significant when considering the needs of individuals with sensory impairments. Several techniques and procedures have been developed to assist individuals with sensory impairments in accessing media. These include intralingual subtitles and sign language interpretation for the DHH, as well as AD for the blind and visually impaired (Chiaro, 2013).

Ensuring the quality of AV products, particularly when catering to viewers with sensory impairments, is of utmost importance. Television and film, as forms of mass communication, play a significant role in this regard. While this discussion focuses on film in a general sense, it is essential to consider the accessibility of AV content across various media platforms to ensure that individuals with special needs can fully engage with and comprehend the content.

### SDH and its origin

The use of SDH in films was introduced in the 1970s and 1980s. However, as noted by Romero-Fresco (2013), any form of accessibility service was disregarded due to perceived high costs and the perception of catering to a limited and specific population. The introduction of captioning by the Captioned Films for the Deaf (CFD) in the United States in 1950 marked a significant milestone. It produced open captions, which are always visible and cannot be turned off. The CFD changed its name to Captioned Films and Telecommunications in 1974 and allocated funds for the captioning center at WGBH in Boston. In 1971, the ABC Television Network introduced a closed captioning system that allowed viewers to toggle the captions on and off. The success of these events led to the establishment of the National Captioning Institute in 1979 and marked the inception of television captioning on U.S. television. As a result, the three national networks PBS, ABC, and NBC began broadcasting 16 hours of closed-captioned programs per week. In Europe, the origins of subtitling for the DHH individuals are closely tied to television. The BBC introduced its Ceefax Teletext service in 1972 and commenced offering SDH in 1979. In the same year, France 2 provided subtitles for a weather forecast program using Teletext technology. In the 1980s, several other European countries followed suit and began offering SDH. Germany, for instance, initiated a project involving the two public broadcasters ARD and ZDF. In Belgium, SDH was introduced by the channel VRT in 1983, primarily for sports programs. Italy followed suit three years later by introducing SDH, initially by subtitling the Italian-dubbed version of Alfred Hitchcock's Rear Window. Spain and Portugal also began offering SDH services in the 1990s (Romero-Fresco, 2018).

English-speaking countries, including the UK, USA, Canada, and Australia, have played a pioneering role in research and the development of SDH and AD (Diaz Cintas & Anderman, 2009; Szarkowska et al., 2011). They have recognized the importance of accessibility in AV translation, and SDH and AD are widely accepted as integral parts of the field (Diaz Cintas & Anderman, 2009; Szarkowska et al., 2011). Research indicates the significance of accessibility in AVT, and scholars and practitioners in the field of AVT recognize that SDH and AD are integral components of AVT (Diaz Cintas, 2008). The efforts of professionals and academics have resulted in the development of guidelines that have served as standards for many years. These guidelines aim to ensure the accessibility of AV media for individuals with hearing impairments. They provide a framework for the preparation and implementation of SDH and other accessibility services. It is worth noting that the field of media accessibility continues to evolve, and guidelines are regularly updated to reflect advancements in technology and research. As new technologies and platforms emerge, the need for accessible AV content remains a priority to ensure equal access for all individuals, regardless of their sensory abilities.

The research highlights that Deaf individuals whose mother tongue is sign language tend to be slower readers compared to other groups (De Linde & Kay, 1999; Jelinek Lewis & Jackson, 2001; Jensema, 1998). Eye-tracking studies have also shown that DHH individuals spend more time reading subtitles (Szarkowska, 2013; Szarkowska et al., 2016). Preferences for verbatim subtitles, which provide a word-for-word rendering of the audio content, have been reported among DHH viewers who seek equal access to information, similar to hearing individuals (Neves, 2008a). The reading skills of the audience are closely linked to their comprehension of subtitle content (Jelinek Lewis & Jackson, 2001). This suggests that factors such as reading proficiency and language abilities can impact the effectiveness of subtitles for individuals with hearing impairments.

The main principle of SDH is to make auditory information visible, ensuring that the essential audio content is conveyed through the subtitles (Neves, 2008b). This involves accurately representing spoken dialogue, sound effects, and other relevant auditory elements to provide an inclusive viewing experience for individuals who rely on subtitles.

Indeed, it is crucial to conduct investigations specifically tailored to the Iranian context in order to comprehend the preferences and requirements of the DHH community. Research conducted in Iran has revealed a dearth of fundamental accessibility services for this community, underscoring the importance of media accessibility and the associated rights (Shokoohmand & Khoshsaligheh, 2019). Additionally, studies have highlighted the need for knowledge and expertise in producing high-quality SDH in Iran (Khoshsaligheh et al., 2020).

There is a lack of explicit mention of the rights of people with disabilities, including the right to media accessibility, in the constitution of Iran (Shokoohmand & Khoshsaligheh, 2019). Unfortunately, AV media accessibility in Iran has a relatively short history, and fully accessible programs on television, cinema, and DVD platforms are scarce.

In the context of the film industry, there are only a limited number of theaters in Iran where subtitles are accessible (Shokoohmand & Khoshsaligheh, 2019). This suggests that the provision of SDH in the film industry is not widespread, which can significantly impact the accessibility of films for individuals with hearing impairments.

The lack of comprehensive accessibility services in Iran's AV media highlights the challenges faced by individuals with disabilities in accessing information and entertainment. It underscores the need for awareness, advocacy, and policy initiatives to promote and ensure the rights of people with disabilities, including their right to media accessibility.

### SDH in Iran

There is growing awareness about media accessibility rights in Iran, leading to increased accessibility for individuals with hearing impairments. In the past, there were programs on television that used sign language for the DHH community, particularly for news broadcasts, and sign language interpretation was also used in cinema and other platforms.

In Iran, there has been notable progress regarding the availability of SDH in AV products. With the increasing demand for SDH, scholars in Iran have started producing subtitles specifically for DHH viewers. However, it is important to note that the accessibility of subtitles in the film industry is still limited to a few theaters in Iran (Shokoohmand & Khoshsaligheh, 2019).

One of the challenges mentioned in the research is the lack of specialized expertise and proper instruction in the field of SDH in Iran, which may affect the quality of the produced subtitles. This suggests that there is a need for professional training and guidance to ensure the production of high-quality subtitles. In the research conducted by Khoshsaligheh, Ameri, Shokoohmand, and Mehdizadkhani (2020), the classification of SDH in Iran has been divided into two categories: quasi-professional SDH and non-professional SDH. These classifications likely reflect the varying levels of proficiency and expertise among practitioners in the field. Further examination of these categories could provide valuable insights into the current state of SDH in Iran.

#### Quasi- professional SDH

The Iranian VOD services have been utilizing an accessibility service for DHH viewers by applying local studies of SDH. However, it seems that most of the products do not meet the requirements of professional SDH practices. It is important to note that even if the SDH follows professional standards, they cannot be considered professional products without the presence of national guidelines for SDH practice.

The absence of national guidelines for SDH in Iran may contribute to the challenges faced in achieving professional standards. National guidelines can provide a framework and set standards for SDH practitioners to ensure the production of high-quality and accessible subtitles. These guidelines can address various aspects such as linguistic accuracy, synchronization, readability, and other important factors that contribute to effective SDH. The development of national guidelines for SDH in Iran would be beneficial in promoting consistency, quality, and accessibility across different media platforms. It can also serve as a valuable resource for SDH practitioners, helping them enhance their skills and expertise in producing professional SDH.

Efforts to establish national guidelines for SDH in Iran should involve collaboration among relevant stakeholders, including accessibility experts, SDH practitioners, and representatives from the DHH community, policymakers, and industry professionals. By working together, it is possible to develop comprehensive guidelines that can contribute to the improvement of SDH practices and the accessibility of AV content for individuals with hearing impairments.

#### Non- professional SDH

It's interesting to note that amateur subtitlers in Iran are making efforts to create subtitles for the DHH community. While these subtitlers may lack knowledge of SDH, their attempts demonstrate the potential for development in this field. SDH aims to make auditory information visible (Neves, 2008), allowing individuals with hearing impairments to access AV content effectively. The emergence of amateur subtitlers and fansubbers producing SDH over the internet reflects a growing trend in Iran. These individuals are providing services to make a range of AV programs accessible to the DHH community. This grassroots movement indicates a response to the need for greater accessibility in the media and highlights the demand for SDH among viewers with hearing impairments. While the efforts of amateur subtitlers are commendable, it is important to recognize the importance of professional expertise and adherence to guidelines in ensuring the quality and accuracy of SDH. As the field of SDH continues to develop in Iran, it would be beneficial to provide training and support for amateur subtitlers, enabling them to enhance their skills and knowledge to produce more effective and professional SDH.

The research highlights important factors to consider when producing subtitles for the DHH community. It is true that individuals whose mother tongue is sign language may have slower reading speeds compared to other groups, as evidenced by studies (Conrad, 1977; Jensema, 1998; de Linde and Kay, 1999; Jelinek Lewis and Jackson, 2001). Eye-tracking research has also shown that DHH individuals spend more time reading subtitles (Szarkowska, 2013; Szarkowska et al., 2016). The comprehension of subtitle content is closely related to the audience's reading skills and their level of understanding of the subtitle text (Burnham et al., 2008; Diao et al., 2007; Jelinek Lewis & Jackson, 2001). This emphasizes the importance of producing subtitles that are clear, concise, and easily readable to facilitate comprehension for viewers with hearing impairments.

Research conducted in Iran has highlighted the lack of basic accessibility services for the DHH community, including media accessibility (Shokoohmand & Khoshsaligheh, 2019). Additionally, there is a lack of knowledge and expertise in producing SDH in Iran (Khoshsaligheh et al., 2020). However, there has been progress in recent years, with growing awareness of the rights of people with hearing impairments and improvements in the quality of produced subtitles. Nevertheless, there is still a gap in terms of establishing a consistent style for SDH production and aligning it with international guidelines due to the absence of national guidelines designed specifically for the DHH community.

Considering international guidelines is crucial in ensuring that SDH meets recognized standards of accessibility. National guidelines tailored to the needs of the DHH community would be valuable in promoting uniformity, quality, and accessibility in SDH practices within Iran. Such guidelines can provide specific recommendations regarding subtitle style, synchronization, readability, and other important aspects of SDH production.

## SDH

Indeed, there has been a significant increase in interest and recognition in the field of media accessibility in recent years. SDH is one such area that has gained prominence. SDH involves the conversion of all the audio and visual information in a video into written form, making it accessible to viewers with hearing loss. It aims to provide equal access to AV content for individuals who cannot rely on the auditory component. SDH serves as an accessibility service by making auditory information visible through the presentation of text on the screen (Neves, 2008). It bridges the gap between different modalities, such as aural, oral, and visual, allowing individuals with hearing loss to access and comprehend AV materials. It recognizes that hearing-impaired viewers may have different abilities and processing capacities when it comes to reading texts compared to hearing readers (Jensema et al., 1996).

The availability of SDH expanded globally in the 1980s, with many countries adopting and implementing it as a means of providing access to AV content for the DHH community (Roboson, 2004). This growth in SDH availability is a significant step towards inclusive media practices and ensuring that individuals with hearing loss can fully engage with AV materials.

The development and widespread adoption of SDH reflect a growing awareness of the importance of accessibility and the rights of individuals with disabilities to access information and entertainment. It is a positive trend that promotes inclusivity and equal participation in the media landscape for individuals with hearing impairments.

### Target audiences

There is a comprehensive description of the diverse groups within the d/Deaf and hard of hearing community. It is essential to recognize that this community is not homogeneous and consists of individuals with varying degrees of hearing impairment and different communication preferences. The classification categorizes individuals based on the level of hearing impairment and the onset of hearing loss. The three main groups are the Deaf, the deaf, and the hard of hearing. The Deaf refers to individuals who belong to linguistic minority groups and primarily use sign language as their first language. The deaf group includes individuals who use oral language or lip reading as their primary means of communication. The hard of hearing group consists of individuals who have residual hearing and can have varying degrees of access to the auditory world.

Additionally, audiological parameters classify hearing loss into four types based on the decibel level of impairment. These types range from mild hearing loss (20-40 decibels) to profound hearing loss or deafness (more than 90 decibels). Understanding these classifications helps to emphasize the heterogeneity within the DHH community.

It's important to consider the diverse linguistic and reading skills, educational backgrounds, communication expectations, and levels of comprehension within this community. Individuals with different degrees of deafness may have varying abilities and needs when it comes to accessing and understanding subtitles (Neves, 2008). Providing subtitles that consider these differences and cater to the specific needs of different subgroups within the DHH community can contribute to more effective communication and inclusion.

### General Features of SDH

SDH, also known as closed captioning, is a form of AV communication specifically designed for people with hearing loss. It differs from regular subtitling due to the unique needs and restrictions of its target audience. SDH goes beyond the simple translation of dialogue and includes additional information to provide a more comprehensive AV experience for viewers with hearing loss. This includes the description of sounds, music, and the identification of speakers, allowing the audience to have a complete understanding of the audio elements in the content (Szarkowska et al., 2011). Paralinguistic features, such as indicating the tone of voice or sound effects, are also incorporated into SDH, making auditory information visible to the viewers (Neves, 2008b). These additional features are aimed at enhancing the accessibility of AV content for the d/Deaf and hard of hearing audience.

One of the significant achievements of SDH is its ability to make these audio elements easily accessible to individuals with hearing loss. By providing descriptions of sounds, music, paralinguistic features, and speaker identification, SDH ensures that viewers with hearing loss can have a more immersive and inclusive viewing experience. It allows them to access not only the dialogue but also the non-verbal audio cues that contribute to the overall AV context.

The inclusion of these elements in SDH is crucial for providing equal access to AV content and enabling viewers with hearing loss to fully engage with the AV medium. It recognizes the importance of providing a comprehensive AV experience that goes beyond conveying dialogue alone, thus enhancing the overall accessibility and enjoyment of AV materials for the DHH community.

#### Speaker identification

Different methods are used to identify speakers in SDH, and these methods can vary depending on the country and the media that prepares the SDH. Here are some of the commonly used methods:

* *Displacement*: In this method, the subtitles are positioned in different parts of the screen based on the character's position in the frame. This positioning helps viewers associate the subtitle with the corresponding character on the screen.
* *Dashes*: Some SDH formats use dashes before the speech of each character. These dashes serve as visual cues to indicate which character is speaking.
* *Colors*: Colors can be employed to identify different characters in SDH. Each character may be assigned a specific color, which is consistently used throughout the program. For example, in France, white may be used for on-screen characters while yellow may be used for off-screen characters. Additionally, different colors may be used for different voices.
* *Labels with names*: Another approach is to use name tags or labels before the dialogue of each character. These name tags can be placed in parentheses, or square brackets, or start with a capital letter. They serve to explicitly indicate which character is speaking.

It's important to note that the specific method used for speaker identification in SDH can vary between countries and even among different media producers. These methods aim to make it easier for viewers to distinguish between different characters and follow the dialogue more effectively. The choice of speaker identification method depends on various factors, including cultural norms, accessibility guidelines, and the preferences of the target audience. The use of consistent and easily recognizable speaker identification techniques enhances the accessibility and comprehension of SDH for viewers with hearing loss.

#### Description of Sounds and Music

In AV texts, sounds are presented in both speech and non-speech forms. The speech form encompasses linguistic and paralinguistic elements, while the non-speech form encompasses natural sounds, sound effects, and music (neves2005). The former, speech, serves the purpose of telling a story, while the latter, non-speech elements, create an atmosphere that captures the viewer's attention and enhances their engagement with the screen (neves2005). Describing sounds effective while maintaining brevity is indeed a key element in providing a comprehensive AV experience for viewers with hearing loss. There are some commonly used techniques for describing sounds and music in SDH. Descriptive labels and onomatopoeia are general techniques for subtitling sounds. Describing sounds in SDH can involve the use of descriptive labels that provide a brief explanation of the sound. Onomatopoeic words, which mimic the sound being described, can also be used. These techniques help convey the nature of the sound without excessive text. Additionally, sound and music descriptions can take different grammatical forms, including nouns or combinations of words. The choice of the grammatical form depends on the specific sound being described and the preferences of the SDH provider. Onomatopoeias are often used more frequently in SDH for children, as they can enhance the understanding and engagement of young viewers. However, both descriptive labels and onomatopoeias can be used together, as suggested by the CMP Caption Key (robson2004). Various options are available for subtitling and describing music in SDH, depending on the relevance of the music to the plot. Some strategies include:

* *Labels accompanied by titles or descriptions*: Relevant information about the music, such as the song title or a brief description, can be included in the subtitles.
* *Including song lyrics*: If the lyrics of a song are important to the understanding of the scene or plot, they can be included in the subtitles to provide a complete AV experience.
* *Music note symbol (♪)*: The use of a music note symbol at the beginning, end, or both, of a subtitle can indicate the presence of music in the scene.
* *Symbol to mark music*: In the UK, the # symbol is sometimes used to mark the presence of music in the subtitles, particularly when it is relevant to the scene or plot (Ofcom, 2017).

It's important for SDH providers to follow relevant guidelines and recommendations regarding sound and music descriptions. These strategies contribute to enhancing the accessibility and enjoyment of AV content for viewers with hearing loss.

#### Paralinguistic features

Paralinguistic elements, such as intonation, accents, whispering, and emphasis, are important aspects of communication that may not be visible on the screen and are inaccessible to viewers with hearing loss. Subtitling these paralinguistic features is essential for providing a more comprehensive and accurate representation of the AV content. By including subtitles for these elements, individuals from the DHH community can access a more inclusive viewing experience. Without the presence of subtitles for paralinguistic features, the subtitles may seem inadequate or odd to the DHH community (neves2005). Here are some general techniques that can be used for subtitling paralinguistic features:

* *Labels*: Labels can be used to indicate specific paralinguistic elements. For example, a label such as "whispering" or "emphatic tone" can be added before the subtitle to inform the viewer about the specific characteristic of the speech.
* *Colors*: Colors can be utilized to differentiate paralinguistic elements from regular dialogue. For instance, using a different color can indicate a change in emphasis.
* *Italics*: Italicizing the text can be employed to represent paralinguistic elements. Italicized subtitles can convey emphasis, or other variations in speech.
* *Round brackets*: Round brackets can be used to enclose text that represents paralinguistic features. For example, (whispering) can provide additional information about the specific way the dialogue is delivered.

These techniques help to bridge the gap between the inaccessible paralinguistic elements and the DHH viewers by providing visual cues and additional context. By incorporating these techniques into the subtitles, the DHH community can have a more accurate representation of the AV content, resulting in a more natural and meaningful viewing experience.

### Typology

Intralingual subtitling, which involves creating subtitles in the same language, is primarily intended for people with hearing impairments. However, it can also be helpful for other individuals such as immigrants and foreign language students (danan1992, 2004, vanderplank1988, 1992). This type of subtitling provides accessibility and facilitates language learning by providing a written representation of the spoken language.

In addition to intralingual subtitling, there is also interlingual subtitling, which enables the DHH community to access foreign language programs through subtitles (neves 2009, scarkowska 2013). This type of subtitling allows individuals to understand and enjoy AV content in languages they may not be familiar with. Subtitlers should have a deep understanding of the DHH community, including their communication needs, language proficiency, and cultural background. This understanding helps subtitlers create subtitles that accurately convey the intended message. Subtitlers in the field of SDH need to possess specific skills and knowledge to ensure effective accessibility for their target audience. Here are some characteristics that subtitlers should consider when producing subtitles for people with hearing impairments: (neves2008)

Accessibility features: Subtitles for people with hearing impairments may require additional accessibility features. These can include speaker identification, sound descriptions, and on-screen text descriptions to provide a more comprehensive viewing experience.

Linguistic considerations: Subtitlers need to be proficient in both the source language (the language being spoken in the audio) and the target language (the language in which the subtitles are written). They should be aware of linguistic variations, colloquialisms, and cultural references to ensure accurate and culturally sensitive subtitles.

Technical considerations: Subtitlers must be familiar with the technical aspects of subtitling, such as timing, text placement, and readability. They should adhere to industry standards and guidelines to ensure that the subtitles are synchronized with the audio and can be easily read by the audience.

By considering these specific characteristics and needs of the DHH community, subtitlers can produce adequate subtitles that enhance accessibility and provide an inclusive AV experience for this unique audience. It's worth noting that subtitlers in the field of deaf and hard of hearing subtitling play a crucial role in bridging the communication gap and ensuring that individuals with hearing impairments can fully engage with AV content.

# CHAPTER Ⅲ

# METHOD

## Introduction

This research aims to identify how to transmit non-verbal information and render it in subtitles for the DHH individuals watching Iranian feature films on the Filimo streaming platform. Additionally, it assesses the quality of the produced SDH on Filimo in order to address the research questions. The study was conducted using a descriptive design, and the materials used in the research consisted of five Iranian feature films from the drama genre, which are available on the Filimo platform. To analyze the non-verbal data and its rendition in the selected films, a descriptive/explanatory approach was employed. The relevant sections of this information were identified in the original version and compared with their rendition in the subtitled version for individuals with hearing impairment.

The chapter is organized into two main sections: Materials and Procedure. The main motivation behind this study is the extensive research conducted worldwide on media accessibility for all members of society, regardless of their limitations. In our study, we focus on the DHH population. Despite the gradual growth of media accessibility in the Iranian community, there is limited literature and research specifically addressing the sub-field of SDH. Therefore, this study aims to contribute to the area of subtitling for the DHH in Iran. The research questions that guide this study are as follows:

1. Is non-verbal information presented in Persian subtitles for individuals who are DHH?
2. How are these renditions represented in media?

## Materials

The use of the corpus, despite its small size, has been a valuable resource for this study and has been employed by users. It has helped to identify characteristics that are partially under investigation in this research. This exploratory study aims to identify and examine non-verbal components as significant defining characteristics of SDH. The four non-verbal acoustic components of AV texts that are central to SDH include character identification, sound effects, music & songs, and paralinguistic features (Neves, 2005). Therefore, this qualitative study focuses on these components in the SDH versions of the selected feature films and how their renditions are presented in the intralingual SDH. To achieve this, the study utilizes a monolingual comparable corpus. The corpus consists of five Iranian feature films with intralingual SDH, which were purposefully selected for data collection (Dornyei, 2007) to investigate the non-verbal acoustic elements.

The five feature films with SDH were selected from Filimo, a VOD service in Iran. The selected movies are as follows: "No Date, No Signature" (2017), "Swear" (2019), "Castle of Dreams" (2019), "Rage and Pandemonium" (2015), and "About Elly" (2009). Both the original versions and the SDH versions of these feature films are available on the Filimo streaming platform and have been chosen for the analysis of non-verbal elements and their rendition. Table 3.1 provides detailed information about each film.

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Film Director | First Aired | Length |
| No Date, No Signature | Jalilvand | 2017 | 1h 43m |
| Swear | Tanabandeh | 2019 | 1h 24m |
| Castle of Dreams | Mirkarimi | 2019 | 1h 21m |
| Rage and Pandemonium | seyyedi | 2015 | 1h 36m |
| About Elly | Farhadi | 2009 | 1h 58m |

Table 3.1. Films Information

Social issues are represented in different ways across various contexts, and cinema films and visual imagery are among the primary mediums for depicting these concerns. It is not surprising considering cinema's role as a reflection of our own lives. It provides an emotional portrayal of life and offers potential solutions to the conflicts we may face in reality. The five feature films mentioned above were selected based on the drama genre, with the assumption that they directly or indirectly address social issues. The drama genre presents realistic characters and their internal or external conflicts with themselves or the world around them.

One of the main reasons for choosing these films in the drama genre is the dominant theme that covers certain social issues prevalent in Iranian society, whether presented directly or indirectly. Additionally, it can be assumed that the target audience for these films is predominantly adult individuals of any gender and age. Therefore, the themes depicted in these films may resonate with the entire community, including individuals with special needs such as the DHH population. According to the Declaration of Principles on equality, people with special needs, particularly DHH individuals, have the right to access and enjoy films of various genres. However, the lack of films with subtitles for the DHH population restricts media accessibility within the Iranian community, which hinders their ability to fully engage with cinematic content.

## Procedure

Before introducing the research method, it is important to explain the nature of non-verbal acoustic elements in AV texts and their approach to rendition.

Films are inherently multimodal, utilizing both visual and audio channels to convey messages (Zabalbeascoa, 2008). Therefore, the perception of AV signs in a film is crucial for interpreting the story's message. The AV text consists of two communication channels (audio and visual) and two types of signs (verbal and nonverbal), resulting in four components: audio-verbal, audio-nonverbal, visual-verbal, and visual-nonverbal signs.

Considering the target community of this research, individuals with hearing impairment who face difficulties in perceiving the audio channel of communication, it becomes evident that they may encounter limitations when watching films. Among the four components of the AV text, DHH individuals encounter challenges specifically with the audio-verbal and audio-nonverbal signs. While audio-verbal components are addressed in SDH, it is crucial to also present audio-nonverbal components, which are the focus of this research. These audio-nonverbal components include character identification, sound effects, music & songs, and paralinguistic features. To analyze these non-verbal components, the following categorizations are presented to characterize the types of audio-nonverbal components and the strategies employed for their rendition in SDH.

The audio non-verbal components and general techniques for their rendition in SDH are as follows (neves2005):

Character Identification:

* *Displacement*: The subtitles are positioned on or near the character to whom the dialogue belongs.
* *Dashes*: Dashes are used to indicate a change in the speaker.
* *Colors* *(usually yellow, green, and cyan)*: Different colors are employed to differentiate between different characters.
* *Labels with name*: Labels are used to explicitly identify the speaker by name.
* *Combination of the above*: Multiple techniques may be combined to ensure clear identification of characters.

Sound Effects:

* *Descriptive Labels*: Labels are used to describe the sound effects occurring in the scene.
* *Onomatopoeia*: Onomatopoeic words are used to represent specific sounds.

Music & Songs:

* *Labels*: Labels are used to indicate the presence of music or songs in the scene.
* *Lyrics of Songs*: The lyrics of songs are transcribed in the subtitles.

Paralinguistic Features:

* *Intonation*: Labels are used to convey the intonation of the speaker.
* *Accents, dialects*: Labels are used to indicate the presence of accents or dialects.
* *Whisper*: Labels are used, often enclosed in round brackets, to indicate whispered speech.
* *Emphasis*: Emphasis is conveyed through the use of capitals, colors, or italics in the subtitles.

These techniques are employed to ensure that the non-verbal acoustic elements in AV texts are effectively conveyed to the DHH audience through SDH.

In this research, a qualitative research method was employed to examine the non-verbal elements present in the original films and their renditions in SDH. The focus was on analyzing and categorizing the non-verbal information into four main categories: character identification, sound effects, music & songs, and paralinguistic features.

Qualitative research allows for an in-depth exploration and understanding of the complexities and nuances of the non-verbal elements in the selected films. It involves analyzing the existing non-verbal components in the original films and comparing them to how they are presented in the SDH versions. This approach enables researchers to gain insights into how these non-verbal elements are rendered in SDH and how they contribute to the overall AV experience for individuals with hearing impairment.

By categorizing the non-verbal information into the four identified categories, the research aims to provide a comprehensive analysis of the various non-verbal acoustic elements present in the films and their representation in SDH. This analysis will contribute to a better understanding of how these non-verbal elements are adapted and conveyed in a way that ensures accessibility and enhances the viewing experience for individuals with hearing impairment.

For the research corpus, five Iranian feature films were selected using the purposive sampling data collection method within the drama genre. As previously mentioned, each of these films includes both the original version and the subtitled version specifically created for the DHH individuals on the Filimo streaming platform. These versions serve as the primary data for the research analysis. It is assumed that the selected films have SDH versions available on the Filimo platform and that they address social issues prevalent in Iranian society, both directly and indirectly. The films were chosen based on their potential for depicting and exploring these social issues, making them suitable for the research objective of analyzing non-verbal elements and their rendition in SDH.

By examining the selected films and their SDH versions, the research aims to gain insights into how non-verbal elements are represented and translated through the subtitling process. This analysis will contribute to a better understanding of how these films portray social issues and how the SDH versions facilitate accessibility and comprehension for the DHH audience on the Filimo platform.

In the research process, the first step involves a careful and comprehensive observation of the original version of the film. During this observation, the researcher pays close attention to the non-verbal information related to character identification, sound effects, music & songs, and paralinguistic features. These non-verbal elements are identified and recorded as data for further analysis. Once the non-verbal information has been collected, the next step is to categorize the data according to the predetermined categories mentioned earlier. This categorization allows for a systematic organization of the non-verbal elements and facilitates a structured analysis of their rendition in SDH. In the subsequent stage, the SDH versions of the films are examined. The focus of this investigation is on how the non-verbal information is transmitted and rendered in the SDH subtitles, as well as the overall presentation strategy employed. It is important to note that the rendition in the SDH versions may not necessarily align with the original version. There may be differences or discrepancies in the presentation strategy, as the adaptation process aims to ensure accessibility and comprehension for the DHH audience. By analyzing the rendition and presentation strategy in the SDH versions, the research aims to gain insights into how non-verbal information is effectively conveyed to individuals with hearing impairment. This analysis provides valuable information on the strategies employed to make the films accessible while considering the unique needs and experiences of the target audience. In the final stage of data analysis, the non-verbal information obtained from both the original version of the films and the SDH versions is compared to its classification. This comparison allows for a comprehensive evaluation of the rendition and presentation of non-verbal elements in the SDH subtitles.

The data analysis process can be summarized in three stages:

1. Using the original version of the films: In this stage, the non-verbal information relevant to character identification, sound effects, music & songs, and paralinguistic features is identified and documented based on careful observation of the original version. This serves as the baseline for understanding the non-verbal elements present in the films.
2. Using the SDH versions: The focus in this stage is to determine the amount of non-verbal information present in the SDH subtitles and how it is presented to the d/Deaf and hard of hearing audience. This involves examining the rendition and presentation strategies employed in the SDH versions.
3. Comparison of non-verbal information: The final stage involves comparing the non-verbal information obtained from the two versions of the films. This comparison allows for an evaluation of how the non-verbal elements are adapted and conveyed in the SDH subtitles, considering any discrepancies or differences between the original version and the SDH versions.

By completing these steps, it becomes possible to evaluate the quality and process of the provided SDH subtitles and the employed strategies used for subtitling specifically for the DHH audience. This evaluation provides insights into the effectiveness of the SDH versions in conveying non-verbal information and ensuring accessibility for individuals with hearing impairment. It also offers an opportunity to assess the overall success of the subtitling process in making the films inclusive and enjoyable for the target audience.

## Summary

This chapter serves as an overview and recap of key elements in the research study. It begins by restating the purpose of the study and presenting the research question that the study seeks to address. The chosen corpus for the study, consisting of five Iranian feature films, is then explained, highlighting the use of purposive sampling and providing the rationale behind this decision. The chapter further discusses the data collection procedures employed in the study, providing an overview of how the non-verbal information from the original films and their SDH versions were observed, identified, and recorded. This step is crucial in gathering the necessary data for analysis. Lastly, the methods of data analysis for each of the research questions are presented. These methods outline the approach the researcher will take to analyze and compare the non-verbal information in the original films and their SDH versions, assessing the rendition and presentation strategies used in the subtitles.

Overall, this chapter provides a concise summary of the key components of the research study, including the purpose, research question, corpus selection, data collection procedures, and methods of data analysis.

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