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# Lithuanian Deaf and Hard of Hearing Viewers' Preferences for Sound and Music Indications in Subtitles

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**Abstract.** In a world where audiovisual media plays a central role in communication, information, and entertainment, ensuring accessibility for all viewers, including deaf or hard-of-hearing, is essential. For these audiences, subtitles are not only a means of following dialogue but also a crucial tool for experiencing sound and music, which are often key to the narrative of media content. The aim of the study is to explore and identify effective strategies for subtitling sounds and music in audiovisual media that meet the preferences and needs of the Lithuanian deaf and hard-of-hearing audience. The empirical research approach adopted for this investigation is based on semi-structured interviews with the deaf and hard-of-hearing participants and qualitative data analysis. The results reveal that the target audience prefers strategies that incorporate minimal use of colour and mixed positioning for both sound and music indication, specifically, a sound source indicated in the brackets at the centre bottom of the screen, the genre and/or the instrument represented by a note symbol at the bottom of the screen, and song lyrics transcribed verbatim and marked with the note symbol.

Keywords: SDH; media accessibility; sounds; music; preferences of the target audience.

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### Introduction

Technological advances have opened new ways to access audiovisual (AV) content. Over a decade ago, Díaz-Cintas and Anderman (2009, p. 1) insightfully observed that "[i]n the twenty-first century, the media is omnipresent: to inform, arguably sometimes to misinform, to sell, to entertain and to educate". The report released by the independent communications regulator in the United Kingdom Ofcom in 2014 revealed that "UK adults spend an average of eight hours and 41 minutes using media or communications every day, and that approximately half of that time is spent watching audiovisual content" (in Baños Piñero, Díaz-Cintas, 2015, p. 1). A report from 2011 to 2021 shows steady growth in global media consumption, rising from 7 hours 23 minutes in 2015 to nearly 8 hours in 2019 (Statista, 2024). Meanwhile, Lithuanians spent approximately four hours per day watching TV in 2020 and 2021, and their internet usage averaged 5.5 hours per day (KANTAR, 2021).

It is undeniable that AV content plays an important role in our daily lives, influencing decisions, shaping trends, raising awareness, and providing information. However, not all countries are able to implement the latest advances in AV production for diverse audiences. Furthermore, technological accessibility does not guarantee full access, as there are also sensory and language barriers that pose additional challenges to certain target audiences. Access to AV productions is important but holds little value if the viewer is unable to receive and comprehend visual and auditory information. "The Audio Visual Media Services Directive", Article 7 declares that "Member States shall encourage media service providers under their jurisdiction to ensure that their services are gradually made accessible to people with a visual or hearing disability" as "[s]ight- and hearing-impaired persons, as well as elderly people, should be able to participate in the social and cultural life of the European Union (EC, 2016). In addition, following the United Nations' "Convention on the Rights of Persons with Disabilities", Article 21 States Parties have to provide "information intended for the general public to persons with disabilities in accessible formats and technologies" as well as encourage "the mass media, including providers of information through the Internet, to make their services accessible to persons with disabilities" (UN, 2006, pp. 14-15).

Even though in 2007 Lithuania signed "The Convention on the Rights of Persons with Disabilities" (ratified in 2010), the results of a survey carried out in 2017 indicate that measures of media accessibility do not exist at a national level. In addition, around 66% of the respondents observe that people with disabilities lack accessibility to cultural events and distinguish theatre and cinema, public events, and television as the top three fields that particularly lack accessibility for disabled people (Dumbrauskaitė, 2018, pp. 16–17).

Collaboration between government institutions, organisations representing people with disabilities, and cultural and research institutions is essential. One of the target groups that has lately received more attention in Lithuania is the deaf and hard-of-hearing (DHH) community. While SDH is widely used worldwide as a primary means for making AV content accessible, this practice remains limited in Lithuania. To create more media accessible.

sibility within the country, it is essential to consider the needs, preferences and opinions of the target audience in Lithuania. Therefore, the aim of this study is to investigate and determine effective strategies for subtiling sounds and music in AV media grounded in the preferences and needs of the Lithuanian DHH community, thereby improving media accessibility.

#### 1. Media accessibility in Lithuania

In Lithuania, the predominant mode of AVT is voice-over while subtitling is mainly employed in TV broadcasts and film theatres, and dubbing is provided exceptionally for animated and family-oriented live-action films. However, audio description and SDH are scarcely practised. In Lithuania, there is generally a lack of distinction between standard subtitling and SDH among government officials, broadcasters, the hearing public, and even some members of the target audience. A survey by Koveriene and Satkauskaite (2014, p. 33) involved over 300 respondents, revealing that 34.28% claimed that (standard) subtitling was crucial for people with hearing impairments. The survey also demonstrated that the DHH community was not informed about the opportunity to formally request for SDH. Despite the Lithuanian National Radio and Television claiming that they provide subtitles during 10% of the overall broadcast time (LDA, 2017), they fail to recognise that standard subtitles do not always meet the needs of the DHH audiences. Consequently, foreign AV productions are more often subtitled to address the hearing community's linguistic barriers, while domestic productions are rarely subtitled as this is not required by the general audience.

Even considering standard subtitling as a form of media accessibility for the DHH, Lithuania still falls behind many other European countries. Data from the "Lithuanian Disability Forum Alternative Report" show that only 2.6% of all programmes on TV in Lithuania are subtitled (LDF, 2015). The situation in some neighbouring countries is comparatively better, with 25% of broadcast TV programmes subtitled in Latvia and 50% in Poland (LDA, 2017). The Lithuanian Association of People with Disabilities conducted a survey to find out the opinions of the disabled and other members of society on the implementation and effectiveness of the Convention on the Rights of Persons with Disabilities in Lithuania. Among 1,690 respondents, people with disabilities constituted 56%, and the hearing impaired comprised approximately 17%. When asked whether they believe people with hearing impairments have equal rights and access to TV programmes, films, theatre plays and other cultural activities, nearly 73% of the respondents answered negatively (LAPD, 2017, pp. 5–6; 43).

Furthermore, in 2017, the Ministry of Culture set out an aim to analyse and increase the level of media accessibility for people with disabilities. The ministry's initiative was a significant part of the "Create Lithuania" project, the results of which were released in a 2018 report that highlights the current situation of media accessibility in Lithuania, providing significant insights about the challenges faced by the DHH community and drawing attention to the reasons that limit their access to cinema (Dumbrauskaitė, 2018). When asked why they do not choose to watch films in a movie theatre, over 36% of the 135 respondents indicated that films "were not adapted to their needs," while 35% claimed they lacked information about films that were adapted to the DHH audience (ibid., p. 30). These examples prove that quite a significant gap in media accessibility exists in Lithuania, and it can be reduced only by specific measures that need to be implemented to change current practices and ensure equal opportunities for all audience members.

Even though recent surveys and reports evoke a rather pessimistic picture of the status of media accessibility, notable progress has been observed in Lithuania since the "complete analogue switch-off" on 29 October 2012 (CRA, 2017), which brought in digital television. Vilnius University Kaunas faculty launched Lithuanian's first "Audiovisual Translation" study programme the same year. Additionally, organisations and associations representing the DHH and the blind have become increasingly vocal about their unfulfilled needs. As a result, the AV landscape has been changing and becoming more inclusive. AVT research has led to successful practices and collaborations with social partners, paving the way for media accessibility projects. One of the best examples is the National Kaunas Drama Theatre, the only theatre in Lithuania technologically equipped to provide audio descriptions and surtitles. In 2015-2019, it presented five plays with audio descriptions, and in 2017, the theatre started offering surtitles for the DHH (NKDTheatre, 2018). A notable achievement includes the release of the first DVD with SDH, Emilija iš Laisvės alėjos (2017), directed by Donatas Ulvydas, offered to English-speaking audiences as Emilie. Breaking Free, along with the first cinema screening of the film with SDH Stebuklas 2017 (En. Miracle) directed by Eglè Vertelyte. In collaboration with the Lithuanian Deaf Association, the Audiovisual Works Copyright Association (AVAKA, 2018), a collective copyright management organisation for AV authors and producers' rights, initiated a project aiming to prepare SDH for at least 80 Lithuanian films during 2018-2019 (Dumbrauskaitė, 2018, p. 26). In addition, employing standardised strategies would be beneficial, as Neves (2005, p. 249) asserts that broadcasters must follow the strategy so that viewers would become familiar with the conventions and process information more easily. Although AV production for the DHH has improved, it is essential to continue discussing the need to establish unified SDH standards across various media platforms.

# 2. Making sound accessible

Sound "is not understood in a linear way, but in an irrational and emotional way by each person individually" (Georgakopoulou, 2003, p. 73). Music is also a subjectively experienced film code. Therefore, in the case of SDH, subtitlers have to not only faithfully render verbal acoustic messages but also decode the meaning of nonverbal acoustic messages. They must then re-encode these messages visually to create an effect equivalent to the original for the hearing-impaired audience. Neves states that "to the profoundly deaf, subtitles do not complement sound. They substitute sound itself" (Neves, 2005, p. 156). Tsaousi (2015, p. 235) complements this idea by explaining that the "'zero' or marginal reliance on the soundtrack by the SDH addressees makes the need to isolate each sound

and to interpret its specific relevance for the comprehension of the programme in question even more obvious". Therefore, in aiming to create high-quality SDH, subtitlers have to understand the target audience, be familiar with the multimodal nature of AVT products as well as film codes and conventions, i.e., know the function of sound and music in films and be able to recognise, analyse and interpret them.

Several scholars have proposed methods that can be useful when dealing with the challenges that subtitlers face when labelling sounds and music into SDH. In one of the few studies addressing specifically sound effect labelling in SDH. Tsaousi (2015, pp. 234; 240–245) proposes "a three-level model of analysis for the optimal transmission of sound-effects", comprising the source, function and adequacy of sound effects. In films, sounds and music can be diegetic, belonging to the story's world (e.g., a character playing a musical instrument or singing, doors slamming), or non-diegetic, added from outside the story space, usually in post-production (e.g., narrator's commentary, background or mood music, applause, laughter) (Chaume, 2004, p. 142). It is very important to consider inserting labels when a source of sound cannot be visible on the screen. Some researchers suggest that visible sounds should not be labelled to avoid redundancy (Zdenek, 2011). Yet, Neves (2005, pp. 244-245) argues that labelling nonverbal aural elements when their source is visible is a reasonable practice as such details as intensity, volume, repetition, etc., are relevant for overall understanding of the AV material and need to be provided for the DHH viewers. She defines such labels as interpretative and confirms that the results of a study carried out with deaf people in Portugal concerning such sound indications showed a positive response from the target audience (ibid.).

Additionally, Tsaousi distinguishes different origins of sounds: human agent, animal, device, environment, and non-recognisable (2015, p. 241). Indication of the source plays an important role in sound and music labelling. While hearing can often determine where the sounds or music comes from based on acoustic features, people with hearing impairment need more information.

It is also important to understand the function of sound and music. According to Neves, who relies upon Garrett, "music and sound effects of modern media can act in similar ways to prosodic features in spoken texts – grouping items, marking boundaries, indicating historical periods or distant locations, and so on" (Neves, 2005, p. 234). The same sound or a piece of music can have different connotations in different genres (e.g., classical music in a historical drama and a modern comedy, laughter in a horror film and a comedy). Tsaousi (2015, p. 243) suggests that sound in the film serves exegetic functions (reinforces dialogue and visual implications, creates new meanings, and influences overall interpretation), narrative functions (enhances cohesion and coherence, expands the narrative, supports plot development, and guides viewers' attention), contextual functions (adds contextual information and realism), and emotive/aesthetic functions (creates or emphasises emotions. When discussing music, it is also necessary to mark the differences between background or theme music (usually non-diegetic) and foreground music (usually diegetic). Furthermore, it can be divided into identifiable (e.g., a classical piece), unidentifiable instrumental music, and songs.

In Tsaousi's third level of analysis, adequacy, subtitlers have to consider the needs of the target audience, which means choosing effective strategies to convey sound and music verbally based on empirical research and SDH guidelines. Sets of guidelines from different countries show that sounds and music are conveyed in different ways, varying from square and round brackets, capital letters, different text and background colours to italicised font and asterisks. Most guideless recommend the note symbol for music in SDH, though octothorpe, capital letters, colours, italicised font, asterisks, square and round brackets are also used. Nevertheless, a subtitler's rule is to maintain consistency with the chosen style for conveying music and sound.

Finally, addressing the intended silence in SDH is important as its effect might be difficult for some DHH audience members to understand. Intended silence holds significant importance in films, serving functions such as foreshadowing events, building suspense, evoking feelings of fear, surprise, etc. Extended pauses without any subtitles may lead viewers to question what is happening. Neves acknowledges that "silences are equally meaningful because they are intentionally built into the audiovisual construct" (Neves, 2005, p. 159). Muller offers an example of France in cases of silence, thus, "[a]n absence of sound for more than 20 seconds, a subtitle indicating ellipsis, i. e. (...), is displayed in white at the bottom left-hand side of the screen" (Muller, 2015, p. 177). Not only meaningful sounds and music have to be labelled, but long intervals of silence, when all sounds instantly cease or music stops, have to be indicated in SDH to effectively convey the full message encoded in the soundtrack.

This research considers sound and music indication strategies employed by European countries with established SDH traditions. In 2012, the Spanish Association for Standardization and Certification (AENOR) offered the "UNE-153010" subtitling guidelines, which have several sound and music indication characteristics. According to the Spanish guidelines, the most peculiar aspect of sound and music indication is the positioning, as both sounds and music labels have to be placed at the top right corner, except when that obstructs some essential visual information. Such mixed positioning is only used in Spain (AENOR, 2012, p. 8). However, the data from a survey carried out in Spain by Arnáiz-Uzquiza in 2012 shows that "[a]ll the deaf participants prefer the subtitles (dialogues+sound information) to be displayed at the bottom of the screen, as it is currently done in DVD and cinema subtitling", and most hard-of-hearing (60%) agree with this view (Arnáiz-Uzquiza, 2012, p. 82), which indicates that an extensive number of the respondents from the target audience does not prefer the national norm. In addition to positioning, the guidelines suggest displaying information about sounds and music in round brackets and using an octothorpe or a note symbol when indicating song lyrics. These two indication strategies are also quite common in other guidelines. French SDH guidelines rely mainly on a colour code, using red for sounds and magenta for music and song lyrics (CSA, 2011, p. 2). However, a recent study in France shows that over 41% of respondents do not know the colour code by heart, and over 70% find the use of colours satisfactory (Muller, 2015, p. 173–178). According to the BBC Subtitle Guidelines (Version 1.2.3), sound effects should be typed in white capital letters on a separate line

to the left of the screen unless the sound source is obviously to the right, and arrows can be used to indicate the direction of out-of-vision sounds when the origin of the sound is not apparent (infrequently used); song lyrics are usually subtitled verbatim and marked with an octothorpe or a note symbol (BBC, 2024). Moreover, the positioning is also quite specific: sounds have to be placed at the bottom left of the screen unless the sound source is obviously to the right, in which case it has to be placed to the right, but song lyrics have to be centred (BBC, 2024). Overall, the SDH guidelines across Europe cover key strategies for sound and music indication in Europe, focussing on the type of indication, label position, and label content. However, there is variability in user preferences and the practical applicability of these guidelines. Future developments in SDH practices should consider these preferences to enhance accessibility and user satisfaction.

#### 3. Methodology

Semi-structured in-depth interviews (DiCicco-Bloom, Crabtree, 2006, p. 315) formed the basis for the empirical research of the current study. They allowed collecting valuable insights about the preferences of the Lithuanian target audience. Semi-structured interviews were chosen as they give the freedom to the interviewees to express their views in their own terms and provide reliable data. The interviews were conducted via Lithuanian sign language interpreters.

In total, 30 DHH people from 17 to 67 years old participated in the study. All the participants claimed they used the Lithuanian sign language as the primary means of communication, a few could also read lips, and 66% were bilingual and used both the Lithuanian sign language and Lithuanian in everyday communication.

The following aspects of sound, music and song indication were applied: type of indication, placement on the screen, and the information provided in the subtitle. The questions related to sound indication were formulated as follows: "How" (answer options: square and round brackets, capital letters and colour); "Where" (answer options: bottom, centre, bottom left, top right, close to the source), and "What" (answer options: source, description, imitation of sound). The questions related to music indication were formulated as follows: "How" (answer options: note symbol, capital letters, colour), "Where" (answer options: bottom, centre, bottom left, top right, close to source), and "What" (answer options: genre, instrument, author and title). In total, there were 22 questions: questions 1 to 7 were about the interviewees' background (age, education, level and onset of hearing loss, language profile); questions 8 and 9 referred to habits related to watching AV production; questions 10 to 14 investigated participants' knowledge about SDH and opinions on sound and music indication in SDH; and questions 15 to 22 aimed to determine the interviewees' preferences in regard to type or means of indication, placement and information provided in content of the sound and music labels. During the first part of the interview, the participants answered questions from 1 to 14, were then asked to watch clips with different sound and music indication strategies, and were asked to answer questions from 15 to 22. Notably, some participants saw SDH for the first time, which naturally brought up mixed emotions, including confusion and excitement.

The AV material selected for the study consisted of the only Lithuanian feature films with SDH, namely *Emilija iš Laisvės alėjos* (2017) (En. *Emilia. Breaking Free*) directed by Donatas Ulvydas where music and songs strongly complement the dramatic story of the screenplay and *Stebuklas* (En. *Miracle*), directed by Eglė Vertelytė. Six clips were prepared for the interviewees: four with sound and music labels and two with song indications.

During the process of conducting the current research, several organisations representing the DHH were contacted in five big cities in Lithuania. Semi-structured interviews were arranged with the participants who belong to one of the six organisations: Kaunas Rehabilitation Centre for the Deaf, Kaunas Deaf Youth Organization, Kaunas County Sign Language Interpreters Centre, Šiauliai Rehabilitation Centre for the Deaf and Hearing Impaired, Klaipėda Rehabilitation Centre for the Deaf and Hearing Impaired and Klaipėda Technology Training Centre.

The results were analysed by employing contrastive analysis, which helped identify cohesion among participants' responses and supported the formation of the study's conclusions.

### 4. Sound and music indication in SDH: Preferences of the target audience

The analysis of sound and music indication strategies in the two Lithuanian films revealed some notable differences in their approaches. In *Emilija iš Laisvės alėjos*, all information is placed at the bottom of the screen, dialogues are written in white colour (except translations from Russian that are written in red), and characters are identified with name labels. Moreover, instrumental music and songs are marked with note symbols, while sound labels are displayed in square brackets (see Fig. 1).



Fig. 1. Sound and music indication in Emilija iš Laisvės alėjos (Source: a screenshot from a DVD)

In *Stebuklas*, mixed positioning is applied: dialogue, paralinguistic elements and song lyrics are placed at the bottom of the screen. In contrast, labels of sounds and instrumen-

tal music are placed on the top left corner. Colours are used for character identification. Information about paralinguistic elements, sounds and instrumental music is provided in square brackets, while for song lyrics, a double strategy is used as both colour and note symbols (see Fig. 2).



**Fig. 2.** Sound and song lyric indication in *Stebuklas* (source: an example offered in Dumbrauskaitė, 2018)

One of the reasons for these inconsistencies could be the fact that there were no official guidelines for SDH and standard subtitling in Lithuania at the time. It should be mentioned that guidelines for adapting AV products to improve media accessibility for the blind, visually impaired and DHH audiences are currently available in Lithuania, serving as a valuable resource for researchers and practitioners in the field (Kerevičienė, Niedzviegienė, 2022).

In exploring the perspectives and preferences of the target audience, the semi-structured interviews revealed a few valuable insights, highlighting both diverse viewpoints and shared concerns regarding SDH in Lithuania.

Participants' answers regarding TV and cinema showed a clear trend: at least 60% of all the respondents indicated the importance of subtitles. Some commented that they only watch TV programs and films at the cinema when subtitles are provided; others claimed that they do not watch or rarely watch TV because of the lack of subtitles. When discussing the cinema experience, one respondent explained that no subtitles were available for children's films. This lack of media accessibility is a significant reason why their family did not attend film theatres at all:

There are no subtitles for the children. That's why we don't go to the movies with the whole family. (29DM29)

At least three respondents expressed their disappointment regarding the absence of subtitles for Lithuanian films:

*Lithuanian films are problematic; subtitles are necessary.* (8MH52) *I sometimes watch Russian TV programs and films because they have subtitles. As for Lithuanian production, the subtitles are missing.* (11MD57)

Although some local broadcasters provide subtitles for foreign shows and TV series in Lithuania, they are typically standard subtitles that focus solely on translating spoken dialogues without incorporating sound cues and other information essential for DHH viewers. On the other hand, programs produced in Lithuania rarely receive the same level of subtitling attention. Nevertheless, several participants indicated that they had seen Lithuanian films with SDH:

I have seen a film about deaf people at the Deaf Club and it had SDH, information about sounds was written in brackets. (17WH20)

This inconsistency means that DHH people have better access to subtitled foreign content compared to domestic programming, which often lacks the necessary features to fully convey the auditory elements of the media.

It is important to clarify that the subtitles referenced by the interviewees above are not in all cases, specifically SDH. The interviewees did not always distinguish between standard subtitles and SDH. More than 50% of participants claimed to know the difference, and 70% had encountered SDH examples. When asked to explain the difference between the two types of subtitles, the participants most often mentioned sounds and music indicated in SDH.

Some sounds are written in the specialised subtitles, if someone is knocking at the door, if there is music playing. (25MD32)

*In SDH, sounds are included. For example, a person turns around, and it tells you what sound caused that, what the emotion was.* (2WD26)

For example, if there is laughter or a knock on the door, if the sound comes from the left or from the right side, the subtitle is on that side where someone speaks. They [SDH] are very, very different. (29MD29)

When the interviewees were asked to share their thoughts about the importance of sound and music indication in SDH, the majority of the participants showed appreciation for the inclusion of sound information and song lyrics in SDH. They emphasised that these elements not only enhance their understanding of the content but also significantly improve their overall viewing experience by providing essential context that would otherwise be missed:

Yes, it is necessary. We want to have equal access. I think all sounds should be included. (2WD26) Absolutely necessary. I would say the most important thing of all. (4WH25) I think it would be easier to understand everything if sounds were included. (12WD20) You, for example can hear it, right, well, I want to hear it as well. (30MD42).

One participant also suggested incorporating more detailed sound descriptions in SDH could further broaden their vocabulary. The interviewee explained that precise sound cues not only enhance comprehension of the content but also introduce viewers to new words and phrases:

#### It is very good for broadening your vocabulary. (15MH22)

This indicates that the inclusion of sound information in subtitles not only supports a better understanding of the media content but also contributes to linguistic development.

Regarding music, the interviewees expressed a rather complex relationship with it. The participants either did not provide answers to many questions regarding music or said "maybe" when asked about music indication, which is understandable due to the fact that some of the participants had never encountered SDH and were only accustomed to the standard subtitling, which does not usually include the elements they were questioned about:

#### I didn't even know that that was possible. (2WD26)

Several participants expressed their surprise after learning that SDH has the capability to convey the essence and meaning of song lyrics. One participant seemed particularly excited after learning of this prospect:

#### Of course, I would like to know what they are singing about! (3MD25)

Such excitement expressed by the interviewees shows that they truly value when subtitles capture the emotional tone and thematic elements of songs, which not only makes the content easier to understand but also enriches the overall viewing experience. The participants appreciate music and emphasise its significance in their lives as music can evoke strong emotions regardless of an individual's ability to hear it fully:

#### I actually like listening to music, but I don't always hear it well, music is important. (15MH22)

The last and arguably most important part of the interviews addressed participants' preferences regarding sound and music indication. Based on participants' overall feedback, the following preferences emerged regarding sound and music indication in subtitles. For sound indication, participants prefer brackets, followed by colour and capital letters; for the placement of sound subtitle, participants prefer the bottom centre; and for the information provided in the subtitle, participants prefer the source of the sound indicated. Regarding music indication, participants prefer note symbols, followed by colour and capital letters; as with sound labels, participants favour bottom centre placement. The respondents indicated that they would like to see the genre or the instruments indicated in the music

label. Finally, for song indication, participants unanimously prefer the note symbol, bottom centre placement and song lyrics with the title and artist's name as secondary details.

It is crucial to note that in some responses, more than one strategy was chosen as participants were unsure which would be the best. Such answers as "I don't know which to choose" or "I like them all" show that further investigation needs to be carried out in the future.

### Conclusion

In Lithuania, only a limited number of examples of AV productions with SDH can be identified. As a result, the DHH audiences have to rely on standard subtitling, which does not adequately meet their needs.

The findings of the study reveal that the DHH viewers appreciate the inclusion of sounds and music in SDH. The data analysis demonstrates a preference for the indication of sound sources placed in the brackets at the centre bottom of the screen. Regarding the music, participants expressed a preference for labels that specify the genre or the instrument, denoted by the note symbol at the bottom of the screen. Additionally, they indicated that song lyrics should be transcribed verbatim and marked with the note symbol at the bottom of the screen.

The results of the study contribute to the growing field of media accessibility studies and provide insights regarding sound and music indication for DHH viewers. The insights gathered from this research and semi-structured interviews can contribute to the development of SDH practices in Lithuania. This study presents several limitations that should be considered when interpreting the findings. Firstly, a larger and more diverse sample could provide a more comprehensive understanding of the target audience's perspectives and preferences regarding SDH in Lithuania. Secondly, the study primarily focused on the inclusion of sound information and song lyrics within SDH, potentially overlooking other critical musical elements, such as rhythm, tempo, harmony, and dynamics.

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### **Author contributions**

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