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# **Interpreting the Lived Experiences of Using Music and Movement for the Well-Being of Children with Dyslexia**

## Abstract

This qualitative study, framed within a phenomenographic theoretical framework, investigates the perspectives of four participants, comprising three teachers and one teacher-student (two of whom have dyslexia). The focus is on the utilization of music and movement to enhance the well-being of dyslexic students in a classroom setting. The emergent categories from the interviews encompass the following themes: *Reaping the Benefits*, *Music as a Complement to Text-Centered Education*, *Music and Movement as a Multisensory Approach*, *Pulse and Rhythm as Language Strengthening*, *Music as a Sanctuary*, and *Compensation*. The key findings emphasize that, considering the potential anxiety associated with reading for dyslexics, alternatives to traditional text-based approaches may be explored to facilitate a more accessible learning experience. Music is identified as a sanctuary, offering social benefits and providing dyslexic students with a supportive environment for academic tasks, potentially boosting self-efficacy. Moreover, the interconnection of music and language suggests that a music and movement approach could enhance reading abilities. Collectively, these aspects of music present promising paths for supporting dyslexic individuals in their journey towards well-being.

**Keywords:** Categories of Description, Dalcroze Eurythmics, Decoding, First and Second Order of Perspectives, Outcome Space, Phonemic Awareness, RAN, Word Segmentation, Working Memory

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# Introduction

In a society where reading stands at the apex of the information hierarchy, individuals with dyslexia may encounter a deficiency of self-efficacy, potentially resulting in detrimental effects on their overall well-being (Novita, 2016). As an individual with dyslexia, I possess first-hand experience in coping with the substantial academic demands encountered throughout one's educational journey. From a tender age, I perceived myself to be struggling compared to my peers, thereby adversely impacting my self-esteem regarding literacy skills.

Difficulties in reading, such as dyslexia, have the potential to present significant challenges for students and adversely impact their lives, particularly in a society where visual literacy holds a paramount position (Novita, 2016).

This study explores lived experiences of using music and movement for the well-being of children with dyslexia. The study will primarily focus on the movement aspect of the Dalcroze method in relation to dyslexia and intends to provide insight for future educational practices.

## Definitions of key concepts

*Dyslexia* is categorized as a specific learning disorder falling under the broader umbrella term known as "disorders in reading and writing." It is essential to recognize that various factors contribute to reading difficulties, and not all of them are attributed to dyslexia. These factors may include, among others, visual impairment, limited vocabulary, and issues related to concentration, such as Attention Deficit Hyperactivity Disorder (Specialpedagogiska Skolmyndigheten, 2020).

Dyslexia is characterized by difficulties in grapheme-to-phoneme conversion, which reflects an impaired capacity to access information when interpreting symbols, such as written text or sheet music. Phonemic awareness, exemplified by the ability to identify and relate component phonemes, such as "c-r-i-c-k-e-t," is instrumental in the process of learning to read and write (Sruthi, 2022).

A commonly associated term in the context of dyslexia is "rapid automatized naming" (RAN), which denotes the skill of recognizing a word visually and promptly retrieving its meaning. In contrast to individuals without dyslexia, who can instantaneously derive word meanings upon sight, individuals with dyslexia encounter signal rerouting, a phenomenon that significantly impairs their working memory. This limitation is frequently observed in individuals with dyslexia (Sruthi, 2022).

This study refers to the *Dalcroze method* as a point of reference; however, it will not be used exclusively in this context. Therefore, the term *movement* also encompasses the description of physical movement such as dance, and its perceived impact on well-being.

*Dalcroze Eurythmics* is a movement-based music pedagogy that emerged in Switzerland during the early 20th century. Its creator, Émile Jacques-Dalcroze, a prolific pianist, believed that musicians of his era were deficient within their movements and lacked expressive vigor. Drawing inspiration from the world of circus and ballet, he developed Dalcroze Eurythmics as a pedagogical approach that integrates movement to address music learning and performance (Atlas of Eurythmics, 2023).

*Walking Syllables* is a technique utilized in the Dalcroze method, where individuals walk through the syllables of a word to comprehend the fundamental components of language, utilizing the natural pulse associated with walking. This not only enhances linguistic development but also fosters a holistic understanding of rhythm and movement (Wedin, 2013).

## **Background**

Several studies have explored the link between early literacy and music and movement. Rolka and Silverman (2015), assert that individuals with dyslexia exhibit deficits in information processing. Hence, incorporating music as a multisensory intervention can potentially benefit literacy abilities. Nonetheless, the problem is that there appears to be a paucity of studies concerning the perspectives of educators regarding the utilization of music and movement interventions as an approach and their perceived influence on their well-being. Therefore, I anticipate that this study, which aims to explore alternative methods such as movements and music may aid individuals with dyslexia.

## **Literature on the Problem**

This study examines several existing publications. These include Heikkila and Knight's (2012) investigation of inclusive settings for dyslexic individuals in the music classroom. It also includes Lifshitz-Ben-Basat and Fostick's (2019) examination of temporal processing in dyslexia and potential interventions. Additionally, Lewis's (2016) exploration of the impact of music on life skills through lived experiences is considered. Cancer and Antonietti (2022) and Tierney and Kraus (2013) analysis of the correlation between reading and music is also reviewed. Finally, Schmidt et al's (2022) examination of the lived experiences of physical interventions in the classroom is included.

Upon reviewing the existing literature, several subcategories of interest have surfaced, and the literature can be classified into distinct topics such as music, well-being, and movement. All three main topics have their subtopics. Within this body of literature, there exist various subcategories pertaining to music including, but not limited to, *the impact of music education on reading disabilities*, *musicians with dyslexia*, *the relationship between music and language/reading*, *music-based interventions for reading difficulties*, *the effect of music interventions on academic achievement* and *dyslexia and music*.

The objective of the initial music-related topics has been to provide sufficient background to examine the issue from multiple perspectives, both on a small and large scale. The aim has been to analyze various aspects, such as the experiences of musicians with dyslexia and compare them to the overall effects of music-based interventions on academic performance.

Lewis (2016) found that participants in her study perceived effective communication, interpersonal skills, stress management, and teamwork as skills that were developed through participation in an orchestra. Additionally, leadership, multitasking, and taking responsibility were moderately supported among the participants. This finding aligns with the study conducted by Habibi, Damasio, and Damasio (2021), which reports a positive effect of music on executive function and cognition. However, these results must be compared to the more conservative viewpoints presented in Sala and Gobet's (2020) and Schellenberg's (2011) studies, which question the supposed impact of musical intervention on intelligence and cognitive function, asserting that "The benefits of music training are empirically unjustified and stem from misinterpretation of the empirical data and, possibly, confirmation bias" (Sala & Gobet, 2020). Binur's (2022) work on musicians with dyslexia emphasizes the neural resource-sharing between language and music processing in the brain, suggesting that music interventions might be beneficial for individuals with dyslexia. Similarly, Tierney and Kraus (2013) propose that the training of rhythmic abilities, such as beat synchronization, may contribute to the development of a more stable representation of sound. This, in turn, could potentially help improve linguistic skills, including enhanced phonological awareness and reading proficiency.

A recent study, conducted by Bailey (2023), has undertaken a self-evaluation study where control groups of participants in an ensemble and another control group assessed their level of well-being. Bailey (2023) reports that "students who participated in music ensembles reported higher life satisfaction, self-esteem, and social connectedness scores". These findings are consistent with the outcomes reported by Lewis (2016) in a similar study. Bone and Fancourt (2022) underscore the purported benefits of music and the arts on well-being in their study. This research offers a



comprehensive examination of well-being, exploring various facets, including the role of music in reducing cortisol levels, enhancing self-efficacy, motivation, and mental stimulation. Despite some studies presenting inconsistent findings, there is an indication of a potential positive impact of dance and music participation on children's self-efficacy. Additionally, the study delves into the arts capacity to instill motivation, suggesting a synergistic effect on academic achievement. Noteworthy is the assertion that regular engagement in music, dance, and visual arts classes during preschool correlates with greater school readiness, including heightened social and self-awareness, along with improved vocabulary. Furthermore, the study investigates subjective well-being across four dimensions: Evaluative well-being, eudaimonic well-being, experienced well-being, and social well-being. Subjective well-being, as defined by the authors, involves an individual's evaluative and cognitive assessment of their life, encompassing dimensions such as happiness, life quality, fulfillment, contentment, satisfaction, purpose, and meaning (Bone & Fancourt, 2022).

Additionally, there is a considerable body of literature that links moderate intense aerobic exercise to the improvement of cognitive function (Chang et al., 2013; Chen et al., 2018). The study conducted on kindergarten children indicates that exercise may have a notable impact on executive functions, enhancing thinking, planning, and task execution (Chang et al., 2013). Considering the potential challenges faced by individuals with dyslexia in this realm, it may be of interest to explore the correlation between music and physical movement and its impact on overall well-being. The subcategories concerning movement that have been studied further are, *physical activity integration into the classroom, music and movement and movement and well-being*.

In summary, upon reviewing the relevant literature, it appears that sources that highlight the potential positive effects of music and movement exist. Furthermore, studies have been conducted wherein participants reported their personal experiences of music. Nevertheless, there is a conspicuous lack of literature that examines the perspectives of educators with regard to teaching students with dyslexia using movement and music. Therefore, this research endeavor seeks to address the gap in the existing literature and contribute to the extant body of knowledge.

## **How My Study Differs from the Above-Mentioned Studies**

Numerous studies have explored the association between music and well-being, including investigations by Clift (2020), Eerola & Eerola (2014), Macdonald (2013), and McLellan et al. (2013). The latter investigation employs a quantitative methodology to examine the social benefits arising from the prolonged incorporation of music within the school setting.

Nonetheless, to the best of my knowledge, no research has yet investigated the perspectives of educators regarding the potential impact of music and movement intervention on pupils with dyslexia within a classroom setting. Despite McLellan et al.'s (2013) examination of the relationship between music and well-being through a qualitative phenomenological lens, their study was conducted within a medical context, rather than an educational one. Notably, previous research has demonstrated the potential benefits of music for individuals with dyslexia, as exemplified by Flaughnacco et al.'s (2015) study that explored the relationship between language and music and its potential therapeutic applications for dyslexia. Taken together, these studies highlight the multifaceted nature of this topic and the diverse approaches that have been taken to investigate the relationship between music and dyslexia.

Furthermore, literature exists regarding the relationship between music and well-being, as well as the efficacy of the Dalcroze approach (Habron, 2014; Sailer, 2011). However, to date, there is a lack of literature or studies exploring the potential benefits of the Dalcroze approach for the well-being of individuals with dyslexia in a classroom setting. While previous research such as that conducted by Habron (2014) and Bogdanowicz (2016) has examined the benefits of the Dalcroze approach for children, the latter is a quantitative study that specifically focuses on ADHD, rather than dyslexia. Bogdanowicz (2016) mentions that “Participation in Dalcroze Eurhythmics increased the childrens’ ability to control motor activity or concentrate attention and lessened the tendency to distraction.” In contrast, Sailer's (2011) study addresses the topic and explores the potential impact of a Dalcroze intervention on individuals with dyslexia. However, it fails to mention the crucial aspect of well-being in this context. Despite the promising results of the above-mentioned studies, additional research is needed to fully understand the potential impact of the Dalcroze approach on the well-being of dyslexic individuals in an educational setting.

The proposed study has employed a phenomenographic lens, an infrequently employed approach compared to existing studies on the subject matter. Despite extant literature indicating the potential benefits of music on individuals with dyslexia, the practical implications of these findings remain unclear. The present study seeks to address this disparity between theory and practice, and thus, aims to bridge this gap by providing valuable insights into the practical implications of utilizing music and movement interventions for the well-being of dyslexic individuals in a classroom setting.

## **Purpose Statement and Research Questions**

This study aims to interpret the varied meanings ascribed by two Eurhythmics teachers, a music teacher with dyslexia, and a teacher student with dyslexia to their experiences of teaching, learning, and well-being within the realm of music education and dyslexia.

## Research Question

What meanings do two Eurythmics teachers, a teacher with dyslexia, and a teacher student with dyslexia ascribe to their experiences of being taught and teaching children with dyslexia?

## Research Approach

The chosen paradigm for this study is constructivism, aligning with the overarching objective to interpret and analyze the varied subjective perspectives on music and movement, with a specific focus on the Dalcroze method among teachers. The research specifically aims to investigate the meanings attributed to this phenomenon, particularly within the context of instructing children with dyslexia, as outlined by Creswell et al. in 2023.

# Theoretical Lens

## Phenomenography

The primary objective of the phenomenographic method is to systematically delve into the intricate and qualitative interpretations of various concepts, with a specific focus on identifying discrepancies in these interpretations among participants. These so-called categories of description are subsequently juxtaposed to discern the qualitatively distinct ways in which a phenomenon is understood. Phenomenography does not concern itself with discovering an absolute truth, but rather with comprehending the multifaceted perspectives on a concept. Phenomenography delves into the first and second orders of perspective, where the first order entails an objective observation of the world around us, while the second order pertains to individuals' understanding of a phenomenon (Marton, 1981; Tväråna, 2019).

For example, one may describe the laws of gravity from a physics standpoint, representing the first order, and then explore how people perceive gravity, which corresponds to the second order perspective, and so forth. Phenomenography is primarily concerned with the latter, where the collective viewpoints of different participants contribute to the outcome space. As a result, the formulation of interview questions should align closely with this objective, necessitating the use of open-ended inquiries that enable participants to provide comprehensive descriptions without undue influence from the researcher (Marton, 1981; Tväråna, 2019). However, the researcher should exercise careful discretion when introducing follow-up questions during the interview, allowing for a deeper exploration while maintaining a judicious distance from steering the direction of the conversation (Marton, 1981; Tväråna, 2019).

While both theories delve into individuals' perspectives and understanding of a phenomenon, notable distinctions exist. The phenomenological approach prioritizes individual understanding and perspective, whereas the

phenomenographic approach is more focused on the diverse perspectives within a group. Notably, the phenomenographic approach finds common application in pedagogical settings, while phenomenology is more prominently associated with disciplines such as Philosophy, Psychology, and Sociology (Bryman et al., 2018; Creswell et al., 2023; Eriksson, 1999).

## **Method**

### **Research Design**

This study utilizes a phenomenographic approach to explore the lived experiences of both Dalcroze-Eurythmics music teachers working with dyslexic children and the experiences of the dyslexic music teachers themselves. The objective has been to develop a nuanced understanding of how these individuals perceive the potential effects of dyslexia and the variations in their perspectives.

According to Bryman et al. (2018), a common critique of qualitative research is its limited reproducibility due to the influence of participants' unique views and the researcher's interpretation. While the qualitative approach is often criticized for its subjectivity compared to quantitative methods, the primary focus of this study has been to explore people's understanding rather than uncover objective scientific truths. Therefore, a mixed methods or quantitative approach was not appropriate for the scope of this investigation.

### **Participants**

This study conducted interviews with two Swedish Dalcroze-Eurythmics teachers and two non Dalcroze-Eurythmics teachers with dyslexia located in Sweden. The participants were selected using convenience sampling rather than purposive sampling, as the nature of this study does not require a typical randomized participant selection. In line with Bryman et al. (2018), probability sampling has not been employed as the aim of this study was not to generalize findings to a broader population, but rather to gain insights from specific individual's perspectives.

Four participants were chosen, as having more participants may have led to data saturation, as discussed by Marshall et al. (2021). Additionally, four perspectives offer a sufficient basis for contrasting viewpoints. The names assigned to the participants are fictional to maintain participant confidentiality. The following pseudonyms are used: the two Eurythmics teachers are referred to as Charlotte and Iris, the dyslexic teacher student is named Nelson, and the other dyslexic teacher is referred to as Sandra.

Charlotte and Iris hold teaching degrees in music pedagogy with a specialization in Dalcroze Eurhythmics, bringing extensive teaching

experience across various levels and age groups. Sandra, while having a degree in music pedagogy without a formal Dalcroze Eurhythmics specialization, has significant experience incorporating Dalcroze movement into her teaching. Sandra offers unique insights into teaching while navigating dyslexia challenges. Nelson, the other dyslexic participant, is currently pursuing studies to become a music teacher, gaining valuable experience as both a music student and an emerging figure in the teaching field. It's noteworthy that Nelson doesn't possess a formal degree in Eurythmics, although it is part of his education.

## **Role of the Researcher**

I, Oscar Spendrup, am currently enrolled as a student at the Royal Academy of Music in Stockholm, pursuing a teaching degree. As an individual with dyslexia, I possess a profound personal connection to the topic at hand, which elicits a deep emotional resonance within me. Moreover, my specialization in Dalcroze movement holds immense personal significance, further motivating my choice to explore this specific subject. Drawing upon my distinctive background and position, I firmly believe that I was well-equipped to undertake this study and contribute significantly to the field.

Assuming the role of researcher, I shouldered the responsibility of designing the research, selecting appropriate participants, conducting interviews, and employing a phenomenographic approach to analyze the gathered data. Paramount among my objectives was the maintenance of objectivity throughout the research process, with utmost diligence to minimize any potential bias. Furthermore, I pledged unwavering adherence to ethical guidelines, placing the utmost importance on preserving the confidentiality of participants' information.

## **Data Collection**

The interviews were conducted via Teams, providing the participants with enhanced flexibility in managing their schedule, particularly in cases where availability could pose a constraint. Moreover, the employment of this platform facilitates effortless session recording.

Furthermore, the interviews adopted a semi structured approach, accompanied by open-ended questions, thereby affording the participants a valuable opportunity to expound upon specific subjects with greater freedom than would be feasible within a more rigid interview framework (Creswell et al., 2023; Kvale & Brinkmann, 2021; Marton & Booth, 2005). Please refer to Appendix A and Appendix B for the attached interview questions and consent form utilized in this research.

The interview duration averaged just under an hour, with questions carefully designed to explore the lived experiences and professional expertise of teachers in instructing individuals with dyslexia. The focus was specifically

on aspects related to their well-being, movement, and learning. These questions were customized to incorporate the personal experiences of dyslexic teachers within these domains. In essence, the interview aimed to investigate the potential integration of music and movement into dyslexic education, while also garnering insights into future teaching practices.

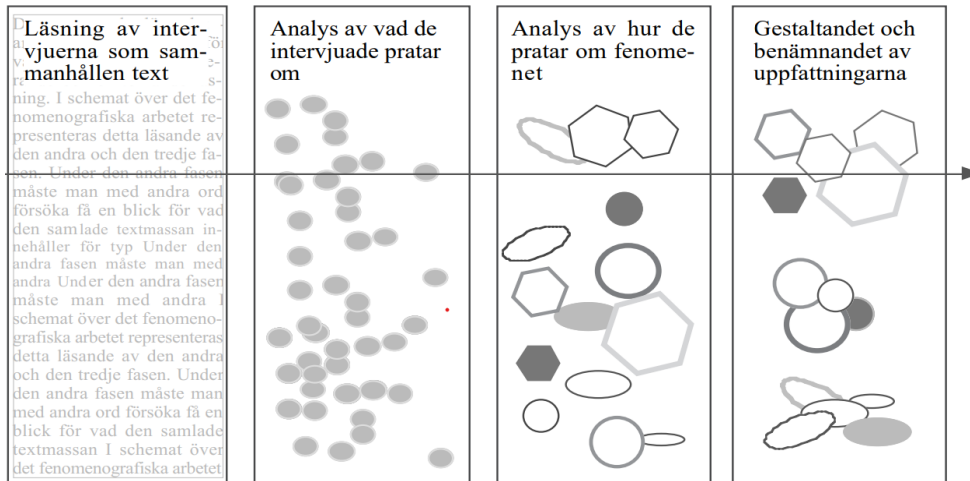
## Data Analysis

The data collected through interviews underwent a rigorous process of meticulous transcription and comprehensive coding using phenomenographic inductive analysis. Subsequently, the diverse themes were carefully sorted into distinct categories, facilitating a detailed comparison to illuminate the participants' understandings and highlight both similarities and differences among them. The information was then subjected to rigorous analysis, driven by the ultimate objective of comprehending the participant's perceptions pertaining to the potential impact of music and movement with focus on the Dalcroze method on students with dyslexia (Marton & Booth, 2005).

The quotations, as presented in the results section, underwent careful editing to enhance readability without altering their intended meaning. This adjustment was made to address the notable distinctions between written and spoken language, as individuals often use expressions like "mmm hmmm" and "uumm."

As a visual representation of the analysis process in this study, a parallel can be made to Inger Eriksson's model of phenomenographic analysis, outlined in four distinct steps. The initial step involves a thorough reading and re-reading of transcribed material to cultivate a profound familiarity with the content. The subsequent step entails a meticulous analysis of the expressed content. The third step involves examining how individuals articulate their perspectives on the phenomena. Lastly, these insights are organized into categories, highlighting the most significant and recurrent themes. (Eriksson, 1999, p. 33). See Eriksson's figure below, illustrating the process of phenomenographic analysis (also translated into English above the figure).

Reading the interviews as a cohesive text	Analyzing the content of the interviews	Examining how they discuss the phenomenon	Shaping and naming of perceptions
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## Validation Strategies and Trustworthiness

Several strategies exist to enhance the validation and trustworthiness of a study. One such approach is triangulation, which involves the utilization of multiple data sources and diverse methodologies to ensure a comprehensive perspective (Grönlund et al., 2021). However, in the context of the present study, where the emphasis lies on exploring individuals' viewpoints rather than establishing absolute truth, the necessity of triangulation was not deemed necessary.

Another crucial step is peer debriefing, whereby colleagues engage in a critical evaluation of the research, encompassing its design, findings, and deliberations on the choices made (Creswell et al., 2023). While peer debriefing is an ongoing process facilitated by a research supervisor, it is beneficial to include a third-party or external auditor to maintain an objective stance and eliminate potential biases (Creswell et al., 2023).

Additionally, member checking represents a valuable measure for enhancing validity, aligning with ethical considerations. This practice entails providing participants with the opportunity to review the study's findings before publication, ensuring accurate representation of their expressed intentions during the interviews (Creswell et al., 2023).

## Ethics

Given the involvement of individuals in this study, ensuring the preservation of their anonymity held paramount importance (Creswell et al., 2023). In order to maintain confidentiality, participants were not identified by their actual names but were given fictional names (Creswell et al., 2023; Vetenskapsrådet, 2023).

Throughout the process of peer debriefing, it was crucial to refrain from disclosing any information that could potentially reveal the identities of the participants, such as their names or specific details that may lead to their

identification (Creswell et al., 2023). Moreover, this study strictly adhered to essential ethical considerations, which encompassed obtaining informed consent from participants and handling and storing data in an ethically responsible manner (Creswell et al., 2023; Vetenskapsrådet, 2023).

A comprehensive consent form was provided to the participants, encompassing all pertinent information pertaining to the study. Special emphasis was placed on highlighting the voluntary nature of participation and the participants' prerogative to withdraw at any point. Additionally, member checking was incorporated, affording participants the opportunity to review and provide feedback on any potential instances of miscommunication or misunderstanding (Creswell et al., 2023; Vetenskapsrådet, 2023).

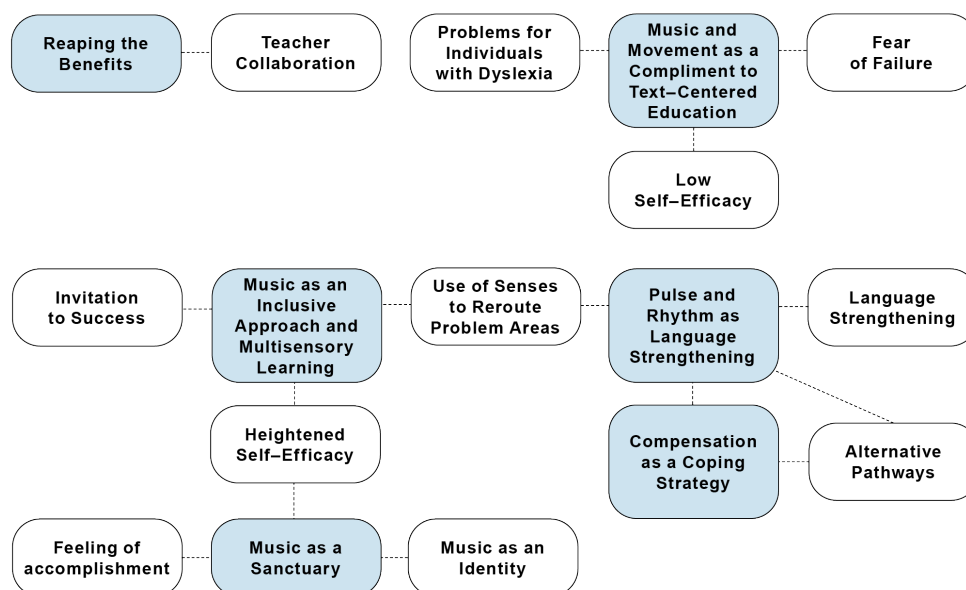
Lastly, this study incorporated negative case analysis to ensure the inclusion of all relevant findings, irrespective of their positivity or negativity. This approach served to guard against the exclusion of any undesired or unexpected findings and contributed to a comprehensive and impartial examination of the research topic (Creswell et al., 2023; Vetenskapsrådet, 2023).

## Result

Following a comprehensive analysis of the interviews, six primary categories of description, each accompanied by associated subcategories, have surfaced. These overarching categories include *Reaping the Benefits, Music and Movement as a Compliment to Text-Centered Education, Music as an Inclusive Approach and Multisensory Learning, Pulse and Rhythm as Language Strengthening, Music as a Sanctuary, and Compensation as a Coping Strategy*. The corresponding subcategories further refine the understanding of these topics, addressing aspects such as *Music as an Identity, Feeling of Accomplishment, Heightened Self-Efficacy, Invitation to Success, Alternative Pathways, Language Strengthening, Problems for Individuals with Dyslexia, Fear of Failure, Low Self-Efficacy, Teacher Collaboration, and Use of Senses to Reroute Problem Areas*.

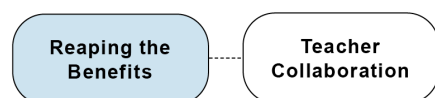
The visual aid, designed to be read from left to right, outlines the primary categories with clear blue boxes representing main categories, while the associated white boxes contain linked subcategories. It is important to note that certain main categories share specific subcategories with other main categories, as illustrated in the spider map.





(Figure 1) The outcome space is illustrated by the categories of description in (blue), accompanied by corresponding subcategories in (white)

## Reaping the Benefits



The subject of collaboration was raised by several participants, with one particular account standing out. Charlotte emphasized the advantages of incorporating music and movement for a group of children with diverse learning disabilities. She conveyed that teachers from non-music disciplines had observed a significantly more peaceful and composed classroom atmosphere following Eurhythmic classes.

The teachers wanted to have their lessons after the Eurhythmic lesson, not as the last thing of the day, because they wanted to be able to continue working with the students. They also wanted to avoid having it right before lunch and instead have time after the Eurhythmic training. The other teachers pointed out that the students seemed happier and more relaxed, and even though it might have to do with the movement breaks in themselves, I found it interesting that the teachers valued this so highly (Charlotte).

The participants exhibit varying perspectives and modes of articulation concerning their understanding of the significance of employing music and movement for the well-being of dyslexic students. One facet of their insights pertains to the broader impact of music and movement on various aspects of their lives, including enhanced concentration, memorization of extensive material, learning effectiveness, comprehension of complex concepts, and a sense of inclusivity within a shared experiential context. These accounts imply that the participants perceive music and movement

not merely as ends in themselves but as instrumental means to achieve broader objectives.

Charlotte reported that students were assigned the task of listening to a 15-minute experimental composition by Stockhausen, known for its complexity, especially challenging for young children. The students were instructed to move freely to the music with their eyes closed, immersing themselves in the auditory experience without the discomfort of feeling observed. Subsequently, during the same week, the children expressed a desire for her to replay the music, citing the pleasant nature of the experience. In this context, movement is highlighted as a facilitator for concentrating on and comprehending rather intricate musical compositions.

A recurring theme in the interviews is the challenge of discerning the specific impacts of music and movement on dyslexic students compared to those with other disabilities.

It's challenging for me to distinguish the well-being of dyslexic students from that of other students. However, while working with a group of children facing language difficulties, the majority of whom were dyslexic, I observed that incorporating movement, rhythm, and pulse in various ways was highly beneficial (Charlotte).

Similarly, Iris expressed caution when trying to distinguish between dyslexics and non-dyslexics, stating that music and movement are beneficial for everyone. In contrast, Sandra did not express any concerns about the difficulties of making such distinctions.

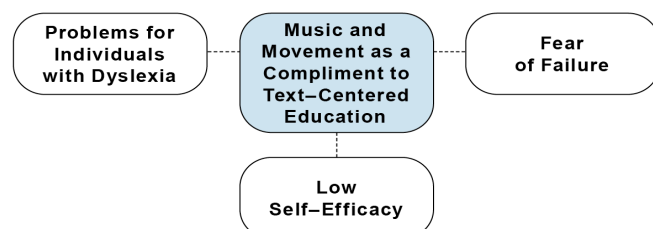
Nelson who, without personal experience in utilizing movement, emphasizes the advantages of incorporating music into the learning process, especially in the realm of reading. The method of word segmentation, which involves movement to different syllables, is described. On a personal level, Nelson underscores the positive impact of music on concentration and academic performance, drawing from his own high school experience. Unlike other participants who rely on personal experiences in educational settings, these insights are solely derived from participation in a teacher program. Nelson doesn't recall using movement or being exposed to Dalcroze Eurhythmics in his childhood education. However, he fondly remembers participating in dance class, expressing joy, and noting that it gave him a sense of belonging. He believes that it might have contributed to his perception of pulse.

Additionally, the role of movement in enhancing concentration and aiding memory, particularly for non-musical subjects, is underscored. For Sandra, movement is characterized as integral to kinesthetic memory, asserting that it aids in remembering tasks connected to other activities.

Iris expounds on the role of movement as a valuable tool for comprehending challenging concepts. The significance of movement in assisting students in

understanding and learning complex material is emphasized, citing an example of teaching note values by physically manipulating them, which proves advantageous.

## Music and Movement as a Compliment to Text-Centred Education



A recurring theme that emerged pertains to the text-centred nature of our society, which, as noted by Charlotte, presents significant challenges for dyslexic individuals due to the inherent weaknesses associated with text-based learning. As she briefly puts it,

Learning existed before the advent of reading and writing; there is no compelling reason for text-based learning to dominate, especially when there are other equally effective forms of acquiring knowledge (Charlotte).

Within this context, Charlotte emphasizes the importance of avoiding extensive presentations of written text when teaching dyslexic students. Instead, she advocates for alternative methods such as visual, auditory, movement-based, and multisensory approaches.

Both dyslexic and non-dyslexic participants mentioned the aspect of fear, either from personal experiences or from working with dyslexic individuals. One dimension of this fear is the dread of having to read aloud in the classroom, which can be a traumatic experience for many dyslexics. Sandra recalls, "I spent a lot of time in the classroom, anxious about the possibility of being called upon to read aloud." For some dyslexics, this repeated exposure to failure can have a detrimental impact on their self-efficacy, as described by Charlotte.

Working with Dalcroze Eurythmics allows me to remove certain aspects that can be challenging for students with dyslexia, which has proven to be beneficial. In my class, students feel assured that they won't be required to read aloud, offering a safe and supportive environment (Charlotte).

In line with these considerations, Sandra asserts that the widespread influence of text norms in society underscores the potential advantages of employing rhymes and verses as instructional tools, offering a means to overcome challenges associated with text-based learning. She further argues that, particularly in dyslexic learning, diverting the focus from words may

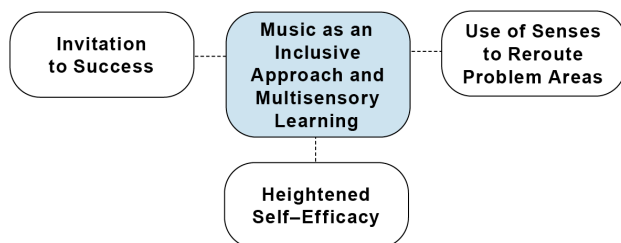
prove beneficial. Sandra emphasizes that music is its own language and a way to communicate and absorb information, especially in a school setting where the text norm is very strong. She mentions that music can be an alternative way to communicate and find one's identity, particularly for those who don't primarily communicate through text. For students, it's important to be able to find their identity and feel secure, and music may play a central role in this. Sandra discusses how learning and collaborative skills can be enhanced by learning through rhythm, rhyme, and chants. She also shares personal experiences of how chants helped her learn notes and sheet music when she was younger. "If you learn the rhyme, you know the information" (Sandra).

Building on this perspective, Iris suggests that engaging in wordless learning could instill a sense of enthusiasm in dyslexic students. This approach may contribute to fostering a belief among dyslexic students that they can operate at the same level as their peers, thereby enhancing their self-efficacy. Moreover, she emphasizes the potential for cultivating a heightened sense of "I can."

But it becomes practical. Learning doesn't have to be through reading or formulating things; instead, they can just do it more verbally, both in learning and in practise. And I mean, it could be a movement, like playing an instrument or working with movement in some way, but yeah. I think that the wordless aspect where both writing and speaking are involved. Many like it, but they usually succeed, and then they tend to be quite motivated (Iris).

Nelson suggests that incorporating walking syllables would be beneficial, particularly for enhancing children's motor skills. He emphasizes the importance of children getting to know their bodies, which is also advantageous for ergonomic considerations when working with musical instruments.

## Music as an Inclusive Approach and Multisensory Learning



A significant theme found in the interviews centers around the concept of inclusivity, specifically the inclusive nature of music and movement education, perceived as a realm where students have the opportunity to achieve success. Inclusive teaching approaches were emphasized, with Iris

highlighting the importance of making learning equitable for students with varying learning styles.

The participants underscored the significance of multisensory learning, especially when instructing dyslexic individuals, noting that this pedagogical approach can benefit all students. Using all the senses was seen as a way to address educational challenges from various angles, potentially facilitating a deeper comprehension of the subject matter. Some participants mentioned their utilization of visual aids and the use of multiple perspectives in explaining concepts, circumventing the need for reliance solely on text-based input, crucial for dyslexic individuals who often struggle with reading. Nelson notes, "When working as a teacher, I always aim to complement my text with visual aids, even though it might demand a considerable amount of time and effort."

Additionally, Charlotte reported encouraging students to explain tasks to one another to ensure diverse explanations were provided, recognizing that different students may possess varying internal understandings of specific concepts. For example, if she says, "yellow as the sun," a student might visualize a sunset with shades of red, resulting in a potential misunderstanding. Therefore, she occasionally allowed peers to explain in their own words, making the content more accessible to all.

Furthermore, Iris underscored the role of movement as a pedagogical tool, seen as a method to enhance learning by engaging multiple senses simultaneously. Integration of movement into music education, for instance, was described as facilitating a more comprehensive understanding of the connection between notation and rhythm, offering dyslexic individuals an alternative approach to comprehending music theory.

We started with professions, and everyone had to come up with a profession that could be performed in rhythm. So, we played around with it, and they had to find some kind of rhythm that matched their job. Then, we connected it to musical note values. When they saw the note values on large sheets of paper, they could link the image of the note value to what they had done in their bodies, like cooking or chopping. They did many different things, and that's where they found their way into an understanding through movement. (Iris)

An account highlighted in the interview pertains to the utilization of colours when presenting chords in music class, aiming to enhance readability. Although text is considered challenging for individuals with dyslexia, the participant suggests that there are methods to facilitate comprehension, such as the strategic use of colour coding.

Some students find text liberating and it's useful. However, it's important that the text is a complement among others. I always strive to provide compliments to the text, can it be made with colors? There are many alternatives to visualization; there's not only one way. I ask

myself, what needs to be written? If I have lyrics to a song, can I maybe draw them instead? (Charlotte)

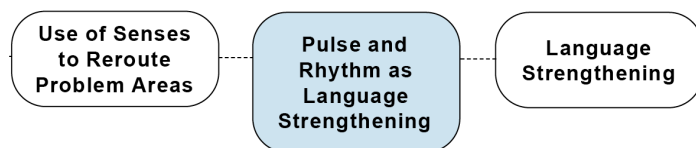
Another aspect discussed by the participant involves bodily visualization.

There are alternatives to visualization. There's not only one way of visualizing a thing; if I can illustrate it with movement, I try to apply that method as much as possible. It may appear that I do not use text at all, but this is not the case. It is beneficial to practice with text, but I always strive to approach it using, for instance, hand signs to complement the text. (Charlotte)

Sandra highlights the significance of dyslexics visualizing their tasks, resembling the process of thinking in pictures. It is asserted that, at times, dyslexics may find it more effective to visualize the movement rather than the movement itself.

While most of the accounts express positivity towards the use of a multisensory approach in learning, Nelson mentions a lack of practical experience with multisensory approaches, at least as far as memory allows regarding personal education. Despite this, he acknowledges that movement has aided him in concentration. Although no explicit connection is discerned between, for example, movement in education, memories from a dance background are evoked. He recalls how the body retained moves as a kinesthetic memory during the time as a dancer. This narrative contrasts with Sandra who deems kinesthetic memory as crucial for dyslexic learning and memorization. Despite the challenge in establishing a clear link between movement and learning, participation in music classes is credited with aiding Nelson in other academic subjects.

## **Pulse and Rhythm as Language Strengthening**



Another aspect that emerged from the interviews was the connection between pulse and rhythm, as mentioned by some participants in relation to movement and music. Charlotte, Iris, and Sandra reported incorporating movement into their music pedagogy. Even Nelson acknowledged the benefits of movement, although extensive utilization was not part of his approach. There appeared to be a shared emphasis on the significance of music and movement in strengthening language skills.

For the children attending a special unit for students with various language disorders, valuable work involved engaging with movement, rhythm, and pulse in various ways (Charlotte).

During the interview, accounts of pulse being an important piece of the puzzle concerning dyslectics surfaced. Although the participants mentioned it as a rarity, they reported that among students lacking a sense of pulse perception, the majority were dyslectics. Charlotte highlighted that even though dyslectics may sometimes struggle with pulse perception, learning pulse in music is relatively straightforward, requiring a bit more effort. The participant further stated that this is why extensive focus has been on pulse with this group.

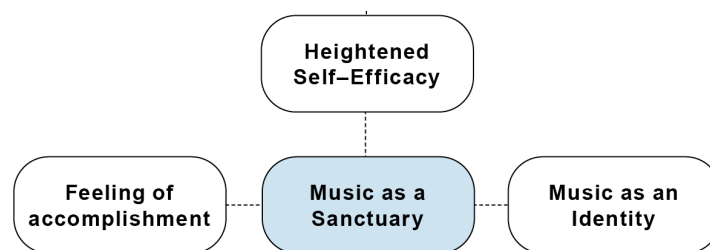
Not all dyslexics have a weak sense of pulse; however, in those cases where my students have shown signs of difficulties with pulse, they have been dyslexics (Iris).

Nelson currently undergoing teacher training underscores the effectiveness of the technique known as "walking syllables," where individuals walk in pulse, emphasizing word segmentation. Despite having encountered this method during formal education, the participant admits to not having implemented it as a teacher in a classroom setting.

Music and rhymes were acknowledged for their potential to assist in word segmentation and the understanding of word sounds, contributing to phonemic awareness, a crucial element in the process of learning to read (Binur, 2022; Cancer & Antonietti, 2022). As Charlotte expressed,

Engaging with phonemes through singing is not only connected to language comprehension but also serves as an effective way to practice pronouncing sounds with your mouth. (Charlotte)

## Music as a Sanctuary



A prevalent perspective, widely shared by the majority of the interviewees, revolves around the concept of music as a refuge or sanctuary for individuals with dyslexia. It is perceived as a safe haven where these individuals can be free from the anxiety of being compelled to read aloud or confront text-heavy tasks.

Experiencing constant focus on reading, making reading the sole aspect of learning, can be incredibly traumatic. It's when the body and physical learning, oral storytelling, and all these aspects become vital. I think it's something that all teachers should incorporate into their training. (Charlotte)

This recurring theme underscores a substantial challenge encountered by individuals with dyslexia, which involves a prevailing fear of underperformance in comparison to their peers. Nelson further adds,

Music has been a safe haven for me, a place where I can excel. It has provided me with a sense of drive and inspiration that I believe has helped me with other non-musical subjects.  
(Nelson)

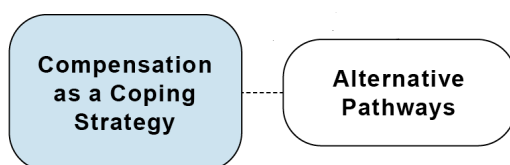
As explained by one participant, this apprehension of not measuring up holds particular significance for many students, potentially resulting in traumatic experiences and a profound impact on their self-efficacy.

As reported by the participants, the music curriculum serves not only as a platform for student achievement but also as a means for students to explore their individual identities. It was highlighted that many dyslexic students struggle with a sense of identity deficiency in the context of traditional academic subjects, primarily due to their difficulties with spelling and text-based tasks, which can leave them feeling devoid of unique talents or strengths.

Consequently, Iris emphasized her proactive approach to offer these students opportunities to discover their identities. This is accomplished by entrusting them with substantial responsibilities within the domain of music education, thereby empowering them to excel.

Furthermore, Iris states that teachers from various academic disciplines often marvelled at her students' exceptional performances on the musical stage, unburdened by their learning disabilities. In general, the prevailing consensus drawn from the interviews suggests that music instils in students a profound sense of "I can!" This newfound self-efficacy is believed to have a potential cascading effect, positively influencing their performance in non-musical subjects. Similarly to Iris, Sandra notes that it's important for students to find their role, and she actively works on helping her students discover their strengths. She has observed that dyslexics may sometimes lack the sense of "I can," and music often serves as a means to fill that void and excel. Furthermore, she adds that in her youth, she recalls subjects like arts and crafts and music playing a significant role in her self-efficacy, emphasizing the importance of this feeling for one's well-being.

## Compensation as a Coping Strategy



The aspect of compensation is a topic that was discussed by Nelson. He consistently articulated his tendency for seeking alternative strategies to



overcome the challenges he faced. Nelson vividly recounted the profound difficulty he encountered when attempting to decipher sheet music, which seemed like an insurmountable obstacle in his aspiration to play bebop music. Indeed, he went to great lengths to circumvent sheet music and musical notation due to the significant challenges it presented. Instead, he turned to improvisation, harmonies, and chord structures, in which he exhibited a high degree of proficiency. When questioned about whether Nelson perceived his dyslexia as an obstacle in his music practice, he responded affirmatively, stating, "I have relied on an oral-based approach." Similar sentiments were echoed by Sandra, who also expressed a predilection for improvisation. Furthermore, she underscored that dyslexic individuals frequently exhibit remarkable prowess in improvisation and oral comprehension.

Another compensatory strategy observed in Sandra was having her grandmother read all of her homework aloud from the age of 12. According to Sandra, if it hadn't been for her grandmother's assistance, she wouldn't have been able to manage it.

## **Discussion**

### **Result Discussion**

#### **Movement and Executive Function**

As noted by the participants, movement appears to play a multifaceted role in education, contributing to diverse areas such as memorization, creating a serene and concentrated classroom environment, enhancing comprehension of intricate music, and providing an alternative approach to learning. In a study conducted by Yu-Kai Chang exploring the impact of exercise on executive functions in kindergarten children, exercise demonstrated a significant influence on the children's executive functions, regulating their thinking, planning, and task execution (Chang et al., 2013). This implies that movement itself holds inherent benefits for children's concentration and focus in the classroom, aligning with the participants' observations of other teachers aspiring to synchronize their classes with Eurythmics sessions. This is in line with Bogdanowicz, (2016) study that studied that concluded that, "Participation in Dalcroze Eurhythmics enhanced the children's ability to control motor activity and concentrate attention, while reducing the tendency for distraction."

While the majority of participants shared a collective perspective on the challenge of segregating the experiences of dyslexic and non-dyslexic students in relation to the influence of music and movement, it can be inferred that dyslexics, often grappling with working memory issues, might find additional advantages from movement (Chen et al., 2018). This not

only stands as a beneficial practice in itself but also addresses a specific challenge commonly encountered within this group.

In Sala and Gobet's (2020) and Schellenberg's (2011) investigations, a notable absence of a significant correlation between musical engagement and executive cognitive function was observed. This intriguing revelation suggests that the influential factor may not be the musical aspect per se, but rather the incorporation of movement, as exemplified in Eurythmics, which appears to exert the most substantial impact on executive function. However, in a more recent study, Habibi, Damasio, and Damasio (2021) suggests that music indeed plays a role in cognition and executive function, creating a conflict with Sala and Gobet's and Schellenberg's conclusions.

Given this perspective, one might argue that individuals grappling with dyslexia in their academic endeavors could find advantages in a heightened integration of music and movement into their educational experiences. This gains significance, especially considering Bone and Fancourt's (2022) study on subjective wellbeing, suggesting that interventions involving music and movement may have the potential to enhance wellbeing across multiple dimensions, encompassing satisfaction, motivation, stress reduction and cognitive and social health.

### Music's Transformative Social Role

Further exploration into additional dimensions of music is warranted, specifically those extending beyond the realm of executive function. Lewis (2016) underscores the beneficial role of music in stress management, interpersonal skills development, leadership, multitasking, and communication, thereby suggesting that music holds potential benefits on a social level.

The accounts provided by the participants regarding dyslexic students' lack of self-efficacy tied to academic schoolwork hint at the possibility that music could play a transformative role in the social domain, providing these students with an opportunity to shine and enhance their well-being. Echoing the sentiments of the participants, the music subject emerges as a sanctuary for many dyslexics, offering a refuge from the anxiety associated with reading and creating a space where the dominant text-centric societal pressures are less pronounced. Within this context, music assumes the role of a facilitator, potentially contributing to the development of a dyslexic person's identity and providing an avenue to discover and excel in areas crucial for overall self-efficacy. These observations align with the research conducted by Bailey (2023) and Lewis (2016), both of whom assert that music has the potential to enhance individuals self-esteem. Consequently, in light of these findings, music can be considered advantageous, given its potential to assist dyslexic students in addressing their potential challenges within the broader academic context. Winner and Hetland (2001) affirm that success in the realm of music can substantially contribute to a student's sense of identity, potentially leading to positive effects on their overall

academic progress. They further argue that heightened self-assurance is likely to stimulate increased motivation and diligence, ultimately resulting in enhanced academic performance.

Although such integration may contribute to academic progress within this demographic, it is crucial to recognize that it might not serve as a universal remedy for the entirety of a dyslexic individual's well-being.

### Music, Language and the Multisensory Approach

The accounts derived from the interviews highlight shared elements in nuanced distinctions. Emphasizing the potential impact of music and movement in advancing the understanding of intricate subjects, one participant delves into embodied learning, highlighting the potential benefits of involving the body in the learning process. Another participant focuses on the power of concentration and active listening. Introducing the concept of integration, a dimension not explicitly explored by others, a participant's examination of kinesthetic memory could also be interpreted as a form of integration, involving the incorporation of bodily movement into the memory process.

In contrast, two other participants approach the topic of memory from distinct perspectives. One articulates thoughts using the term "kinesthetic memory," shedding light on the role of bodily movements in memory retention. Drawing from a dance background, the other explores memory within the context of dance. Moreover, one participant emphasizes movement integration in educational settings, while the other expands the discourse to underscore the supposed beneficial relationship between movement, music, and the enhancement of reading skills.

Drawing from these accounts over the varying ways and aspects and understandings of music and movements many usages, one could posit that integrating diverse learning styles holds potential benefits for all students, as it allows the utilization of multiple senses, thus casting a broader educational net. While distinguishing between dyslexic learning and learning for neurotypical individuals is challenging, considering the difficulties faced by dyslexics, such as working memory issues and language difficulties, suggests that integrating movement and music in teaching may not only be harmless but potentially advantageous.

Addressing the challenges associated with dyslexia, especially working memory issues and language difficulties, incorporating movement and music alongside traditional reading methods could possibly provide valuable benefits. This proposition finds support in the work of Rolka and Silverman (2015), who argue that incorporating music as a multisensory

intervention can potentially contribute to the development of literacy skills. Additionally, Tierney and Kraus (2013) emphasize the interconnectedness of music and language, suggesting a shared neural resource utilization within the brain, a concept supported by Binur (2022) and Cancer and Antonietti's (2022) research findings.

In light of these insights, music and movement emerge as potentially valuable tools for facilitating reading and writing skills. This inclusive approach avoids sole reliance on traditional reading methods and complements them with a range of sensory inputs. Such an approach holds the potential to enrich the overall learning experience for individuals with dyslexia, thereby fostering their well-being within the educational context.

Another facet that the participants addressed was pulse, recognized as a vital element in literacy development, especially notable due to its connection with dyslexics, who frequently demonstrate diminished pulse perception. This underscores the significance of integrating exercises related to pulse to potentially improve the reading abilities of individuals with dyslexia.

Novita's study (2016) brings to light the heightened anxiety associated with reading among dyslexics in comparison to the control group. Interestingly, no abnormal anxiety was detected in other aspects of their academic pursuits. This underscores the significance of addressing areas that can enhance reading abilities, potentially fostering a positive impact on the overall well-being of dyslexic individuals and equipping them with tools to alleviate and overcome challenges related to reading. Recognizing that reading constitutes a substantial challenge for dyslexics, it becomes imperative to focus on this aspect and explore potential strategies to navigate these difficulties effectively. Despite the inherent challenges dyslexics face in reading, it is essential to acknowledge the inevitability of reading in our society. In navigating this balance, educators must consider when it is appropriate to incorporate text and when alternatives can be effectively employed.

## **Method Discussion**

Phenomenography was deemed a suitable method for this research due to its primary focus on clarifying the diverse ways in which the participants perceive the phenomenon of music, movement, and well-being. However, despite its appropriateness for this particular objective, the method does present some inherent challenges. One notable observation during the application of this method was the occasional difficulty in discerning sufficient variation in the participant's perspectives. There were instances where their views appeared remarkably similar, posing challenges in distinguishing nuances. This homogeneity could be attributed to the

extensive group of participants operating within the same professional field. A more diversified sample might have facilitated a broader range of perspectives. Interestingly, despite their similar professional backgrounds in education within Sweden, it remains intriguing why their understandings align so closely. While not necessarily negative, this observation prompts an exploration of the factors contributing to this similarity.

Another challenge encountered was the occasional difficulty in eliciting depth in the participant's descriptions. This could be attributed, in part, to the constraints of the one-hour interview duration. Although the use of Teams provided flexibility, the question arises as to whether face-to-face interviews might yield more profound responses. Despite efforts to craft questions that invite in-depth answers, achieving the desired depth proved challenging, albeit some instances of success.

Additionally, a potential weakness inherent in phenomenographic interviews and other qualitative methods is the substantial responsibility placed on the researcher to maintain transparency. With a background as a Eurythmics teacher student and a dyslectic, my personal biases and interests unavoidably influence the study's content. In qualitative research of this nature, the researcher is not expected to remain entirely absent and neutral. While this subjectivity is acknowledged, it raises the intriguing question of how the study might differ in the hands of another researcher. Such divergence is acceptable in qualitative research, which does not demand the same level of reproducibility as quantitative research. In the latter, adherence to specific instructions should ideally lead to consistent conclusions.

## **Conclusion and Further Research**

In conclusion, a consensus appears to emerge regarding the potential advantages of incorporating music and movement into education. Music assumes a significant role as a viable alternative to traditional text-based subjects, offering an immersive multisensory experience that provides a refuge for students with dyslexia. Within this domain, these students may express themselves and engage on an equitable footing with their peers, free from the constant reminder of their disability.

Examining some of the challenges encountered by dyslexic individuals in an educational setting, it becomes evident that the emphasis on reading, which constitutes a significant aspect of our society, should be supplemented with alternative forms of input. Introducing methods such as listening to text or having a teacher read aloud can offer viable alternatives. When feasible, students, especially those with dyslexia, should be presented with diverse means of accessing information to alleviate the anxiety associated with reading challenges. Additionally, it is crucial to recognize the importance of fostering a sense of self-efficacy in students who may encounter difficulties in the traditional educational setting. This aligns with Skolverket's (2023),

the (Swedish National Agency for Education) assertion that all children have the right to support tailored to their specific needs. This perspective underscores the notion that an equitable education doesn't entail treating everyone the same but rather involves a consideration of each individual's strengths and weaknesses.

As a potential direction for future research, it would be compelling to broaden the scope by incorporating perspectives from younger dyslexic students and delving into their experiences regarding challenges within their educational environment. This expanded investigation holds the potential to offer unique insights that could contribute to a more comprehensive understanding of the adjustments needed to further improve the equitable education of dyslexic students.

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# Appendix

## Appendix A

Hello,

My name is Oscar Spendrup, and I am studying the teacher training program in Dalcroze Eurhythmics at the Royal College of Music in Stockholm. I am reaching out to you regarding my master thesis, which explores the connection between dyslexia, music, and movement, with a specific focus on well-being.

I am wondering if you would be willing to participate in an interview where I can explore your experiences in this field. The plan is to conduct the interview via Teams and record it for further analysis. If you prefer to remain anonymous, your name will not be mentioned.

My research adheres to the ethical guidelines of the Swedish Research Council, and I look forward to hearing your response. If you have any questions or need more information, please feel free to contact me using the following contact details:

Phone Number: \*\*\*\*\*

Email: oscar.spendrup@\*\*\*\*\*

Thank you in advance,

Oscar Spendrup

[Hereby, I consent to the above study]

(Swedish translation)

Hej,

Jag heter Oscar Spendrup och studerar lärarprogrammet i rytmik vid Kungliga Musikhögskolan i Stockholm. Jag kontaktar dig med anledning av min masteruppsats som utforskar sambandet mellan dyslexi, musik och rörelse med särskilt fokus på välmående.

Jag undrar om du skulle vara villig att delta i en intervju där jag kan utforska dina erfarenheter inom detta ämnesområde. Planen är att genomföra intervjun via Teams och spela in den för vidare analys. Om du föredrar att förbli anonym kommer ditt namn inte att nämnas.

Min forskning följer de etiska riktlinjerna från Vetenskapsrådet, och jag ser fram emot att höra ditt svar. Om du har några frågor eller behöver mer information, är du välkommen att kontakta mig via följande kontaktuppgifter:

Telefonnummer: \*\*\*\*\*

E-post: oscar.spendrup@\*\*\*\*\*

Tack på förhand,

Oscar Spendrup  
[Härmed samtycker jag till ovanstående studie]

## **Appendix B**

(Interview questions in English)

- How long is your work experience, and what education or experience do you have in the field of children with dyslexia?
- Can you share your thoughts on how movement can affect the well-being of individuals with dyslexia? Are there specific situations or experiences you can recall where you have observed or experienced its impact?
- Can you share your thoughts on how movement can influence the learning of individuals with dyslexia? Are there specific situations or experiences you can think of where you have observed or experienced its impact?
- What is your perspective on the significance of music in supporting individuals with dyslexia? Can you share some examples of how music can be beneficial or meaningful for them?
- Can you recall a moment or experience when you felt particularly engaged or connected during a movement or music lesson? What made it meaningful for you?
- Can you share an experience when you noticed that your students were particularly engaged or connected during a movement or music lesson? What do you think contributed to making that experience meaningful for these students?
- What are your thoughts on how movement and music education can impact the overall well-being of individuals with dyslexia? Can you share some ways in which you have seen or experienced these benefits?

- Have you noticed any variations in how different dyslexic individuals respond to movement and music education? What factors do you think may influence these variations?
- Can you describe any challenges or obstacles that you or others have encountered when trying to integrate movement and music education into programs that support individuals with dyslexia?
- What do you consider to be the key factors that can make the experience of movement and music meaningful for individuals with dyslexia? Are there any specific techniques or approaches that you have observed as particularly significant?
- How do you view the interaction between movement and music? Do you believe they complement each other, and if so, in what ways?
- Can you share any personal stories or experiences of positive changes you have experienced through participating in movement and music education?
- Can you share any personal stories or experiences of positive changes you have observed in individuals with dyslexia as a result of their participation in movement and music education?
- What recommendations or suggestions do you have to improve the design and implementation of movement and music use for individuals with dyslexia to enhance their well-being?
- How do you think the perceptions and experiences of individuals with dyslexia may evolve over time with continued exposure to movement and music?
- Is there anything I haven't asked about that you would like to bring up?

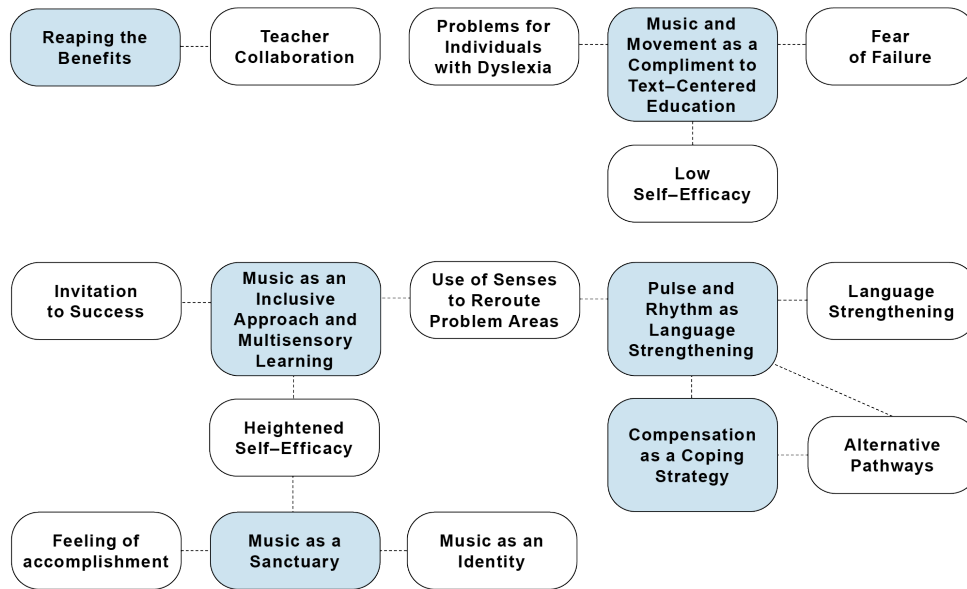
(Interview questions in Swedish)

- Hur lång är din arbetslivserfarenhet, och vilken utbildning eller erfarenhet har du inom området barn med dyslexi?
- Kan du dela med dig av dina tankar om hur rörelse kan påverka dyslektikers välmående? Finns det specifika situationer eller erfarenheter som du kan tänka dig att berätta om där du har observerat eller upplevt dess påverkan?
- Kan du dela med dig av dina tankar om hur rörelse kan påverka dyslektikers lärande? Finns det specifika situationer eller erfarenheter som du kan tänka dig att berätta om där du har observerat eller upplevt dess påverkan?

- Hur ser du på musikens betydelse för att stödja dyslektiker? Kan du dela med dig av några exempel på hur musik kan vara givande eller meningsfullt för dem?
- Kan du minnas ett ögonblick eller en upplevelse när du kände dig särskilt engagerad eller ansluten under en rörelse- eller musiklektion? Vad gjorde det meningsfullt för dig?
- Kan du dela med dig av en upplevelse när du har märkt att dina elever var särskilt engagerade eller anslutna under en rörelse- eller musiklektion? Vad tror du bidrog till att göra den upplevelsen meningsfull för dessa elever?
- Vilka tankar har du om hur rörelse- och musikundervisning kan påverka det allmänna välbefinnandet hos dyslektiker? Kan du dela med dig av några sätt på vilka du har sett eller upplevt dessa fördelar?
- Har du märkt några variationer i hur olika dyslektiska individer reagerar på rörelse- och musikundervisning? Vilka faktorer tror du kan påverka dessa variationer?
- Kan du beskriva eventuella utmaningar eller hinder som du eller andra har stött på när ni har försökt integrera rörelse- och musikundervisning i program som stödjer dyslektiker?
- Vad anser du vara de centrala faktorerna som kan göra rörelse- och musikupplevelse meningsfulla för dyslektiker? Finns det några specifika tekniker eller tillvägagångssätt som du har observerat som särskilt betydelsefulla?
- Hur ser du på samverkan mellan rörelse och musik? Tror du att de kompletterar varandra, och i så fall, på vilka sätt?
- Kan du dela med dig av några personliga berättelser eller upplevelser om positiva förändringar du har upplevt genom att delta i rörelse- och musikundervisning?
- Kan du dela med dig av några personliga berättelser eller upplevelser om positiva förändringar du har observerat hos dyslektiker som en följd av deras deltagande i rörelse- och musikundervisning?
- Vilka rekommendationer eller förslag har du för att förbättra utformningen och genomförandet av rörelse och musikanvändning för dyslektiker för att förstärka deras välbefinnande?

- Hur tror du att dyslektikers uppfattningar och erfarenheter kan utvecklas över tiden med fortsatt exponering av rörelse och musik?
- Finns det något jag inte frågat om som du vill ta upp?

**Figure 1**



**Figure 2**

