

## **LITERATURE REVIEW ABOUT THE LEARNING ENGAGEMENT IN PRESCHOOL AND PRIMARY SCHOOL MUSIC EDUCATION**

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### **Abstract**

*The impact of music has been studied, and there is a growing body of evidence according to which playing a musical instrument has a positive impact on academic achievement in school. It is important for music teachers to know how to support students' motivation to learn music. A person can be motivated in intrinsic or extrinsic ways, and the motivation to learn is revealed in learning activities expressed as learning engagement. However, a different perspective on engagement raises the question of how to be coherent with the data presented in the studies. As early engagement predicts future levels of engagement, this paper presents an integrative review that explores learning engagement in preschool and primary school music lessons and identifies that more research is needed in this area of learning engagement in music.*

**Keywords:** *motivation to learn, learning engagement, music lessons, preschool, primary school, review article*

### **Introduction**

The value of (school) music has been interpreted in history, and nowadays, in the context of aesthetics and culture, it is represented as a mediator of values and ideologies. In ancient Greek society, music was practical and integrated with ceremonies, celebrations, feasts, rituals, entertainment, education, ethical

development, emotional regulation and therapy (Elliott & Silverman, 2012). Today, the meaning and impact of music at school has been extensively studied, and there is accruing evidence that playing a musical instrument has a positive impact on attainment in school (Hallam & Rogers, 2016) and that music making is associated with the measures of academic achievement among children (Johnson & Memmott, 2006; Southgate & Roscigno, 2009; Guhn et al., 2020). Students who have experienced learning to play an instrument or voice become more motivated to learn and practise other school subjects (McPherson & O'Neill, 2010). In the debate over whether playing a musical instrument should be enabled for all children, regardless of their musical abilities, we can now rely on neuroscience, which shows that although music and language are distinct auditory domains serving different communicative uses, children with musical training show enhanced language abilities (Marin, 2009; Tierney et al., 2013; Hallam, 2017), and sensorimotor-auditory training in the context of instrument playing leads to greater plasticity in the human auditory cortex compared to mere auditory training (Pantev et al., 2009). The roots of research on the relationship between cognitive and linguistic development lead to psychologists Jean Piaget (1896–1980) and Lev Vygotsky (1896–1934). Nowadays, in classroom settings, researchers have found that young children's music experiences may positively impact language development (Bolduc et al., 2021). According to Guhn et al. (2020), positive relationships between music engagement and academic achievement were found concerning the positive connection between school music engagement and higher exam scores in English and mathematics at the high school level. Additional benefits of music in the 21<sup>st</sup> century are described in research as psychosocial benefits (Crooke et al., 2016), for example, as a source of feeling of belonging for immigrant students (Marsh, 2012) or the potential of musical interactions to influence emotional, social and cognitive development (Williams et al., 2015) and self-regulation (Williams, 2018).

According to Bates (2019), students are motivated to learn only when they see the need to learn, believe in their potential to learn and prioritize learning. Meaningful learning experiences and engagement in studying and practising are important for every learner's well-being and motivation. A person can be motivated in intrinsic or extrinsic ways; intrinsic motivation is clearly seen in children's spontaneous music playing (Krull, 2001; Young, 2003), and it systematically decreases during the transition from primary to secondary school (Gillet et al., 2012). A person is eager to learn with fun or challenge instead of with external pressure or rewards. Intrinsic motivation involves a meaningful relationship between the learner and the activity or task, which itself motivates a person (Ryan & Deci, 2000). Understanding *motivation* is important for practitioners in music education to understand how music learners persist through the challenges of learning and practising an instrument (Evans, 2015). In group music lessons, every wrong note is noticeable to other students, and every failure is immediately heard. Teachers need to acquire strategies to optimize students' motivational orientation, reduce the learner's fear of failure and help them make a more sustained effort to succeed. Lack of motivation not only hinders learning but also cultivates bad behaviour and disciplinary problems, so it is important for the teacher to be able to notice a decrease or lack of motivation. As motivation is private and difficult to monitor, especially in a classroom with many pupils (Middleton, 1995), and motivation to learn is revealed in learning activities, being expressed as learning engagement (Skinner & Pitzer, 2012), engagement is considered to be an important

motivational outcome measure (Stroet et al., 2013) because compared to motivation, it is more visible (Newmann, 1992; Appleton et al., 2008; Finn & Zimmer, 2012).

Engagement is a multidimensional construct that includes behavioural, cognitive and emotional dimensions (Fredricks et al., 2004). Furthermore, recent research has presented the agentic dimension of engagement (Reeve, 2012; Reeve, 2013; Reeve et al., 2021) and social engagement (Fredricks et al., 2016b). The importance of fostering engagement has been studied, and despite the complexity of different subjects, it has been found that pupils show more engagement the more teachers use autonomy-supportive and structured instructional behaviour (Reeve et al., 2004; Timoštšuk & Jaanila, 2015; Timoštšuk & Näkk, 2020; Reeve et al., 2021). Children's interest and enthusiasm for learning and internal motivation to learn constantly decline from kindergarten to high school (Eccles et al., 1998; Wigfield et al., 2006; Poom-Valickis et al., 2016), and truancy in secondary education can be predicted from engagement in primary school (Virtanen et al., 2021). As early engagement predicts future levels of engagement (Ladd & Dinella, 2009), it is important for teachers to know, identify and support learning engagement to prevent disengagement at different school levels.

In this article, we focus especially on preschool (ages 3–7) and primary school (ages 8–12) learning engagement in music education, as early music making has a beneficial impact on the wider development of children. In most countries, primary school teachers are expected to teach all subject matter in the curriculum, including music. Teachers perceive that the self-efficacy of musical skills and classroom management in music lessons affect their motivation to teach (Bandura, 1999), and the latter is a predictor of student's learning engagement (Demir, 2011). As professional motivation affects a music teacher's effectiveness (Jones & Parkes, 2010), it is important to note that Estonia is one of few countries in the world where music is taught from early childhood education by professionals and where music lessons include singing, playing instruments, creating music, dancing and drama elements.

## **Defining Key Concepts**

### ***A. The potential wider benefits of music education and the problems associated with music education***

One of the ongoing challenges for preschool and primary school music education internationally is how to ensure the experience of high-quality music sessions (Bautista et al., 2022). Teachers tend to feel that teaching music is beyond their area of expertise (Welch & Henley, 2014; Nikali et al., 2021). Music education for young children is mostly delivered by classroom teachers (Custodero & Fox, 2006) who lack the needed musical skills to use music successfully and feel the need to improve their music skills, subject knowledge and practical musical strategies to provide classes that provide engaging learning experiences (Holden & Button, 2006; Fallin & Tower, 2014; Lowe et al., 2017). According to the idea of praxial philosophy, Elliot (2009) sees musical competence and teaching ability as interdependent, emphasizing that music involves more than an understanding of pieces of music. Formal music learning can lead to a self-view of being unmusical (Ruddock & Leong, 2005), resulting in preschool teachers claiming that everybody can sing but, at the same time, not feeling comfortable themselves and avoiding singing (Hennessy, 2000). At the same time, children, due to the media, are aware of assessments of musical abilities (perfectly

edited sounds and juries that judge performances in public), and they want to create quality in their music performances (Lagerlöf, 2016; Lagerlöf & Wallerstedt, 2019).

Musicality is an integral part of being human because of our evolutionary past, where communication using variations in pitch, rhythm, dynamics and timbre was necessary for survival (Mithen, 2009). However, music educators tend to evaluate and assess musical aptitudes or abilities and think that musical aptitude is best understood as a product of environmental influences and inherited potential (Gordon, 1967). As musical experiences are shaped by individual subjectivity and individual life events, and not all music education is positive, leading some people to carry their negative experiences for their whole lives (Welch & McPherson, 2018), it is important to empower learners as active agents in their own musical development (O'Neill, 2012). Nevertheless, according to Green (2017), bringing informal learning practises into a school environment is challenging for music teachers, leading to conflicts with their views on professionalism and learning design. As the slow adoption of changing views based on research evidence is prominent in music education, sufficiently developed and understandably presented approaches are needed to convince music educators of the benefits of using different techniques to engage children (McPherson et al., 2017).

Students are now more diverse than ever before, and they have quite different abilities, aptitudes and interests. According to the Teaching and Learning International Survey, one-third of Estonian teachers have taught in a classroom where students come from different cultures and nearly a tenth of teachers have experience of teaching students with an immigrant or migrant background (Taimalu et al., 2019). In Estonia, relatively much attention has been paid to the perceptions and support of students with special educational needs, but studies have shown that the implementation of inclusive education is hampered by attitudes, knowledge and resources for implementing support measures (Räis et al., 2016; Taimalu et al., 2019). For example, students with attention deficit hyperactivity disorder (ADHD) generally feel less close to their teachers than their non-ADHD peers do (Ewe, 2019). Therefore, better knowledge about supporting all students' learning is required (Kikas & Timoštšuk, 2016). In most countries, music is an elective subject, and low motivation to participate is evident in low enrolment, but in Estonia, music is a compulsory subject from kindergarten to upper secondary school, which raises a critical question of how engaged children in music learning are and how to support their motivation to learn music. Nevertheless, teachers and music educators working with pupils who have additional needs may face challenges in their working environments for which they have not been prepared (Jaquiss & Peterson, 2017; Taimalu et al., 2019). Regarding changes in society in music education as well as the trouble of engaging all members of society in music education, Wang (2021) suggests, with the aim to move from passive learning towards active learning, exploring accepted practices and developing new practices that reflect both cultural and spiritual subjects and key issues in music teaching to enhance student/teacher/staff collaboration and propose new learning activities that allow students to improve their engagement as musicians.

## **B. Motivation**

Motivation is a theoretical construct that explains the initiation, intensity, persistence and quality of purposeful behaviour, and *motivation to learn* in school contexts is described by how much attention and effort students are willing to devote to different activities (Brophy, 2004).

Many theoretical perspectives of motivation have been adopted by music education research, including expectancy value theory (Lowe, 2011; Wigfield et al., 1997), feeling on flow (Marin & Battacharya, 2013) and self-determination theory (Evans, 2015). As learning is not always fun and easy and requires time and effort, self-regulation is needed. In addition, when students don't feel confident that they will be able to accomplish something, they more easily surrender to distractions, barriers, excuses and frustration (Toshalis & Nakkula, 2012). In the absence of support, students perceive control rather than autonomy, so their motivation is primarily external rather than intrinsic. In music education, emerging skills should be used in vital activities rather than simply practising sub-skills in isolation. Thanks to such activities, students feel that learning at school means doing something with regards to creating and making music (Päts, 1989), resulting in musical enjoyment or flow. Research evidence about the motivation of music students in individual lessons and higher education (university) shows that meeting psychological needs and autonomous motivation result from more frequent practice, more frequent quality practice and greater preference for challenging tasks; autonomy support leads to self-regulated practice, and self-regulated practice leads to achievement (Evans et al., 2013; Bonneville-Roussy & Bouffard, 2015; Kupers et al., 2015; Evans & Bonneville-Roussy, 2016). Displaying behavioural involvement in music lessons, help-seeking actions (asking questions), initiative interaction with teacher and creativity are signs of learning engagement, regardless of a child's or student's age. Teachers' enthusiasm for a subject can be transferred to students, and it is the most powerful predictor of students' intrinsic motivation (Patrick et al., 2000). By promoting students' intrinsic motivation, teachers can facilitate learning engagement. Music teachers' transmission of passion for music and autonomy-supportive directions are related to student well-being (Bonneville-Roussy et al., 2020; Hinnermann et al., 2020) and support adaptive high standards and error tolerance in instrument playing and purity of intonation (Herrera et al., 2021). Therefore, music teacher motivation plays an important role in supporting children's learning engagement. Teacher motivation can be satisfied or thwarted by the ideas of school members about music education, and music teachers working alone in schools may have limited chances of interacting with other music teachers, thus feeling isolated (Angel-Alvarado et al., 2020, 2021).

The following chapter will provide an overview of the theory and empirical research in the field, considering self-determination theory as an approach to learning engagement. The self-determination theory addresses students' perceptions of their level of autonomy, competence and relatedness in activity, being concerned with what students do to generate and sustain their engagement (Toshalis & Nakkula, 2012).

### ***C. Engagement in general education***

Based on a dictionary, engagement generally means "being involved with somebody or something in an attempt to understand them or it", referring to emotional involvement or commitment (Webster, 2014). Nevertheless, engagement is characterized by energy, involvement and efficacy (Maslach & Leiter, 1997) and described as the connection between an individual and an activity of interest, referring to time and resources students devote to learning (Krause, 2005). The study of engagement has grown out of different theoretical traditions; scholars have used motivational theories such as self-determination, self-regulation, flow, goal and expectancy-value (Fredricks et al., 2016a). Researchers have conceptualized it as a

range of students' active participation and involvement in learning activities. Engagement is more than involvement or participation; it requires feelings, sensemaking and activity (Harper & Quaye, 2009). Being described as a multidimensional construct, engagement has components involving academic, behavioural, cognitive and psychological aspects, and is the main determinant of academic success and school dropout (Fredricks et al., 2004; Appleton et al., 2008; Reeve & Lee, 2014; Veiga et al., 2014). Nevertheless, the term 'engagement' is interpreted in different ways. Since Fredricks et al. (2004) described how the three types of engagement (behavioural, emotional and cognitive) have been defined, how they overlap and how the majority of studies test the impact of a single type of engagement, different engagement measurement scales have been developed. Glanville and Windhagen (2007) pointed out that there isn't one single standardized measure of engagement, and a new, broader conceptualization of student engagement was offered (Lawson & Lawson, 2013; Reeve & Tseng, 2011). The challenges with research on student engagement because of the large variation in the measurement of this construct and limitations with current approaches to measurement are brought out for future directions by Fredricks and McColskey (2012). The available measures differ in terms of the source of data (student self-report, teacher report, observation instruments and interviews), whether they include the opposite of engagement (disengagement, disaffection, alienation and burnout), how many types of engagement are measured and whether they are designed to measure engagement generally or with reference to a specific subject area (Fredricks et al., 2004; Salmela-Aro et al., 2009). There has been a considerable scope of conceptualizations of the construct, and scholars have used terms including student engagement (Appleton et al., 2008), schoolwork engagement (Salmela-Aro & Upadaya, 2012), school engagement (Finn & Zimmer, 2012), classroom engagement (Skinner & Pitzer, 2012; Wang et al., 2014) and academic engagement at the school (Appleton et al., 2008; Finn & Zimmer, 2012). Emotional engagement refers to positive feelings towards teachers, peers and school. A student's sense of relatedness is vital for emotional engagement (Furrer & Skinner, 2003). Agentic engagement refers to students' proactive, intentional contribution into the flow of learning activity in which they ask questions and make suggestions rather than passively receiving information, thus creating motivationally supportive learning environments for themselves (Reeve, 2012, 2013). As learning engagement is not a fixed characteristic of a child or a student, it can be supported by a teacher, especially during the early years of preschool or primary school. Supporting autonomy, as opposed to strong control, and structuring teaching, as opposed to chaos, are key elements of learning engagement (Reeve et al., 2004; Ryan & Deci, 2000). There is ongoing disagreement about whether there are three or four components of engagement after the recent suggested addition of agentic engagement (Reeve, 2012; Reeve & Tseng, 2011) and social engagement (Fredricks et al., 2016b). Nevertheless, research shows that engagement can be facilitated in the classroom by strong relationships between students and their peers and between students and teachers; additionally, meaningful tasks, high expectations from the teacher and consistent feedback also contribute to engagement (Fredricks, 2011). Because engagement can be shaped, it is a significant point for intervention (Fredricks et al., 2004).

#### ***D. Engagement in music education***

The term musical engagement is interpreted as heightened attention to and interest in music (Olsen et al., 2014). Chin and Rickard (2012) conceptualize music engagement as the connection between the individual and the music activity (performing a musical instrument and listening to a musical recording). Engagement in the classroom context includes teacher support, peers, classroom structure, autonomy support, task characteristics, need for relatedness and competence (Fredricks et al., 2004). O'Neill (2012), one of the key authors of learning engagement in music education, states that engagement in music is transformational if it leads to a change in the learner's views, understanding and knowledge. O'Neill (2012) defines transformative music engagement as a learner-centred approach that fosters agency and empowers learners' autonomy, combining a sense of connectedness and emotional engagement. The ideas of transformative music engagement rely on John Dewey's and Lev Vygotsky's ideas about social learning that can be used to promote student engagement in 21<sup>st</sup>-century classrooms by using technological innovations (Slaugther, 2009). Technology has provided autonomy in students' musical lives and access to varied music resources, and through that, it has exploded the boundaries of what music learners can achieve (O'Neill, 2012). O'Neill (2012) and Green (2017) encourage teachers to engage children by learning to play a piece of music without the use of notation. Transformative music engagement focuses on the idea that all music learners have musical strengths and competencies that can be identified and developed, shifting the focus from instructing and supporting learners to fostering the resiliency necessary for sustaining music engagement and overcoming negative obstacles to learning (O'Neill, 2012). According to Després and Dubé (2020), young music learners don't like to be lectured and tested; instead, they want to actively engage in learning music without stress, in a collaborative way, which is hampered by current teaching approaches. As learning engagement is related not only to individual characteristics but also to class variables (Hospel & Galand, 2016), the new reality that music teachers at public primary schools and compulsory schools are challenged on a daily basis with meeting the diverse needs of all students, including differences in gender, ethnicity, socioeconomic background, various learning styles and needs, should be considered when making suggestions.

Engagement in music education is also used as another word for participation (O'Neill 2012; Vaiouli, 2014). Disengagement of these actions has been measured by the participation rate, which shows a decrease of participation in musical activities between the ages of 10 and 17, resulting in 50% of all students dropping out of elective music lessons by the time they turn 17 (Ruth & Müffensiefen, 2021), and declining musical activity in the home environment between the ages 7 and 14 (Kreutz & Geldhaus, 2020). To address this problem, Green (2008) suggested involving popular music and informal learning practices in schools to fill the gap between children's music experiences in school and outside of school. Research on learning engagement in music lessons mostly addresses the problems of adolescents and describes better behaviour and increases in participation, referring to behavioural engagement (Wright, 2011; Wilson, 2019). Green (2008) proposed the basis for the Musical Future's project, which was carried out in the United Kingdom with over 1,500 adolescents starting at the age of 11. She suggested that learning starts with repertoire chosen by students who learn through self-directed and peer-directed learning, developing skills through coping with recordings by ear. An

informal, collaborative and creative approach to music is suggested for deep engagement in music learning (O'Neill, 2005; Green, 2008; Veloso & Mota, 2021). Contradiction can be seen in the content of the music curriculum (folk music, musical literacy and emphasis on singing) and in the methodological recommendations and content that promote the learning engagement in music lessons. Questions are raised if parents prevent children from classical music, considering it to be too boring for children (Vestad, 2014), and music teachers use popular music with the aim of promoting learning engagement in music lessons. These questions could be as follows: *Is learning engagement in music lessons dependent on or independent from the goals and content of the curriculum? Is it possible to promote learning engagement even if the content of curriculum is musical literacy, folk music and emphasis on singing, as in many countries? Could informal music practices hinder the role of music education as a carrier of culture and values?*

Informal music learning practices of popular adolescent musicians are described as music making as a social event, learning music by ear, collaborative composing and self-directed learning with an interest in autonomy (Green, 2008; Vasil, 2019). Making music with same-age friends having the same taste of music is a social event that promotes social engagement in music learning. According to Bohnert et al. (2010), merely attending an activity may not be sufficient to benefit from music, and consideration of the dimensions of engagement has the potential to provide a richer characterization of children's experiences. Martin et al. (2013) concluded that practice should not simply be focused on the quantity of participation in the arts, citing engagement as a quality factor. The action component of student engagement with academic work is directly observable (Skinner et al., 2008), and although it is a determinant of behavioural engagement, emotions probably drive behavioural and cognitive involvement, leading to deep learning (Skinner et al., 2008). A repertoire that requires reasonable effort can increase engagement, and conversely, too little effort or confusion over insurmountable challenges can lead to low engagement (O'Neill & McPherson, 2002). Cognitive engagement refers to students thinking in terms of dedication, combining ideas and willingness to action. According to McPherson and Renwick (2001), students who are more cognitively engaged enjoy learning more and are more efficient in their work (e.g. practising an instrument).

In Estonia, only qualified teachers teach music (Hietanen et al., 2020), and attending music lessons is compulsory for everyone (in preschool and primary school). Children find a high level of engagement – the state of flow in free play and major approaches to engage students in preschool and primary school music are based on the desire to emulate the aspects of children's play. For example, methods to encourage playful musical engagement between the teacher and the child include the Orff Schulwerk approach, the Kodaly method (Rickard et al., 2013; Marsh & Dieckmann, 2017), the Suzuki method (European Suzuki Association) and the Dalcroze approach (Jordan-Decarbo, 1997). The music curriculum in Estonia describes the learning outcomes in all three stages of basic school, such as singing, playing musical instruments, musical movement, creativity, composing, listening to music and musicology, musical literacy and school choirs (the music curriculum of the basic school). Group singing and performance deliver considerable emotional, social and cognitive benefits and stimulate self-esteem and confidence (Bailey & Davidson, 2005). The act of joint singing serves as an example significant to the Estonian context; for example, the Estonian song festival tells the story of how the Estonians see themselves as a nation.



Singing in the Estonian language represents cultural and political freedom and the solidarity brought by joint singing makes the event a potential ground for civic-oriented nation building (Pawłusz, 2017). The roots of the holistic approach to education in Estonia lead to educators such as Ernst Idla (1901–1980), who created and developed health-oriented movement education, where the exercise material is based on the person's natural movements, which result from Estonian ethnography, children's movements and games, rural people's work movements and folk dance. The method is characterized by using music not only to decorate the movement but also to facilitate and inspire the exercise.

Music educator Riho Päts (1899–1977), the founder of today's learning design of Estonian music education, saw the need for developing children's musical abilities through active music making, improvisation and analytical music listening already at preschool, as it lays the foundation for music education in later stages. This is the basic principle of music pedagogy in Estonia today. His concept, relying on the principles of cognitive activity pedagogy, is reflected in the music education curriculum of the National Curriculum of Estonia 2011 (Raudsepp & Vikat, 2012). Nevertheless, according to the research, pupils in Estonia did not find that they were musically gifted or that it would be appropriate for them to open themselves through music due to their teachers' critical attitudes in music lessons. Out of 7<sup>th</sup> graders, 17% felt anxiety and unpleasant feelings before a music lesson (Mõistlik & Rüütel, 2011). As interest, boredom, happiness, sadness and anxiety depend on students' emotional engagement, and engagement or disengagement in the early grades have long-term effects on students' behaviour and academic achievement in the later years, it is important that preschool and primary school teachers acknowledge and use teaching practices that support learning engagement (Fredricks et al., 2004; Timoštšuk & Näkk, 2020).

### **Aim and Research Questions**

Our integrative literature review addresses emerging topics about learning engagement in music that would benefit from a holistic conceptualization and synthesis of the literature (Torraco, 2005). This purpose of the current integrative literature review is to provide an overview and evaluate the state of knowledge of empirical evidence on learning engagement in preschool and primary school music lessons, as well as to look for commonalities, map differences about how the term engagement is interpreted in research on music learning in group lessons and, thus, provide an overview of dominant methodologies used. Considering the limited preparation of early childhood educators (ECE) in music education (Bautista et al., 2022) and that children in the transitional age of five to seven are not focused on in early ECE research (Young, 2016), it can be assumed that research related to learning engagement in preschool and primary school music lessons is limited.

By integrating empirical findings, the inclusion criteria for the review are guided by the following research question: *How is learning engagement explained in research articles concerning preschool and in primary school music education?*

## **Data Collection Procedure**

To gather and synthesize knowledge from different perspectives, we chose an integrative review process (Torraco, 2005; Snyder, 2019). By integrating the findings and perspectives of many empirical findings, the literature review aims to address the research questions in depth compared to a single study (Snyder, 2019). To select potentially relevant studies, the literature was searched using electronic databases: Scopus, Discovery, Web of Science, ERIC, Education Research Complete (Ebscohost) and ProQuest Central. To adjust the process before performing the main review, the search terms and inclusion criteria for the smaller sample were tested in August 2021 (Snyder, 2019). The search term 'engagement and music' was removed and replaced with 'learning engagement and music' because the term 'engagement' has many different meanings, resulting in a multitude of irrelevant search results.

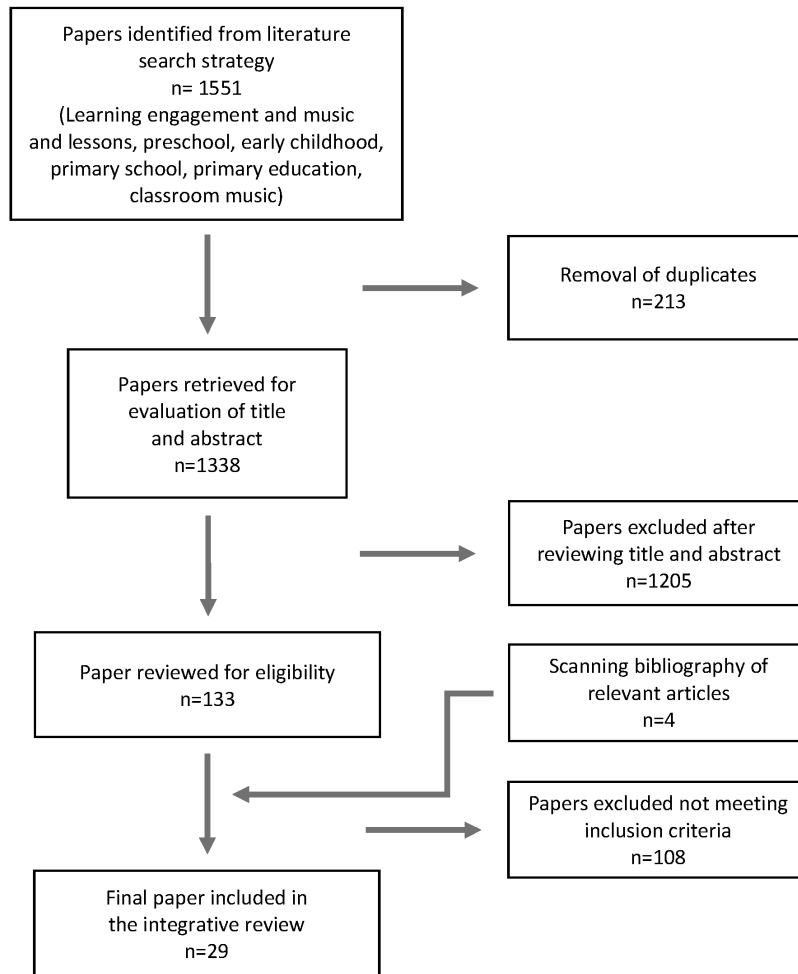
In December 2021, the following descriptions were used: learning engagement and music, learning engagement and music lessons, learning engagement and music and preschool or early childhood or kindergarten, and learning engagement and music and primary school or primary education. After removing duplicates, reading abstracts and making selections first and then reading full-text articles later (Snyder, 2019), the references of relevant studies were examined for additional literature before making the final selection of relevant literature for this study.

Selection criteria of included articles were 1) empirical, 2) peer reviewed, 3) published between January 2000–December 2021, 4) written in English and 5) about learning engagement in preschool or early childhood education (age group 5–7 or 0–10) and primary school or primary education (age group 7–12) music lessons or classroom music.

The main group of excluded references consisted of articles in which the search terms were mentioned in the abstract but in reference to music aiding in engaging children to learn (e.g. how to wash hands). In addition, articles about engagement in music in the 14 – 99 age group were excluded. Reviews and conference proceedings without peer review were excluded.

## **Data Analysis**

We arranged the components of the literature by grouping research based on similarities in the concepts about engagement in group music lessons. The literature search strategy identified 1,551 papers (Figure 1). After removing the duplicates ( $n = 213$ ), reading the abstracts ( $n = 1338$ ) and removing irrelevant data ( $n = 1205$ ), we scanned the references of relevant data (Torraco, 2005). The majority of excluded articles concentrated on age 13+, using the word 'engagement' as an action (without describing or measuring the increase or decrease) and concentrating on engagement with music at home or in free time. The final number of textual data for full screening was 138, and the final number of papers included in the review was 29.



**Figure 1. Flow diagram with the results of our database search**

We analysed the empirical data using an inductive, interpretive–descriptive approach that considers theoretical perspectives (Charmaz, 2012). Analysing the data by reading it several times and conducting an analysis each time developed a deeper understanding of the information (Creswell, 2012).

Describing and developing themes from the data consist of answering the major research question: *How is learning engagement explained in research articles concerning preschool and in primary school music education?* The list of included articles is shown in Table 1, and the facilitators of learning engagement in music are shown in Figure 2. In the list of included articles, emotional engagement is described as a positive attitude towards learning, positive feeling towards music or musical activities, emotional connection to music and behavioural engagement as willingness to participate in musical activities or other learning processes that include music. Cognitive engagement is described as concentration, focus, persistence in learning, meaningfulness of musical experience and musical progress, lack of low or interrupted involvement, persistence in facing difficulty and improved performance outcomes. Agentic engagement is described as willingness to choose music, instruments and methods to learn; responsible behaviour; self-efficacy; idea generation and presentation; active involvement as questioners and problem solvers for musical tasks; and musical independence. The indications of social engagement are peer interaction, helping and teaching each other and increased social adaptation.

**Table 1. Overview of studies describing engagement that were included in the review**

<b>Authors, year and country</b>	<b>Data collection</b>	<b>Participants</b>	<b>Framework</b>	<b>Key findings</b>	<b>Indications of engagement</b>
Charisi, V., Liem, C.C. & Gomez, E. (2018)	Observations, content analysis of verbal and non-verbal actions	16 children in age 4-6, acting in pairs	Bamberger's theory; Sounds of Intent framework	The process of moving from spontaneous to deliberate action develops through investigative action, evaluation of results, discussion and planning.	Cognitive engagement, emotional engagement
Custodero, L. (2005)	Observations	4 groups: 7-24 months; 25-35 months; 5-6 years; 6-8 years	Flow - Csikszentmihalyi	Flow-related behaviours are observable in a variety of music instructional settings, musical engagement is influenced by general developmental trends, environmental conditions, and individual temperament.	Emotional engagement and behavioural engagement
Davis, S. (2013)	Video and audio recording, field notes and multiple interviews	24 children in age 9-10, 4 grade	Musical Futures by L. Green (2008)	Working with popular music, power to choose their own music, informal learning processes (aural learning, collaborating with peers) fostered engagement and escalated the emotional connection to the music.	Emotional and behavioural engagement
Després, J.P. & Dubé, F. (2020)	A systematic literature review		The Music Learner Voice, transformative music engagement by S. O'Neill (2012)	Students like to learn by doing ("playing" not "working"), learners like to teach, to help each other, to be creative and to express themselves. Some current teaching approaches hinder learning; music learners don't like to be lectured and tested, don't like to be directed in a top-down approach, want to decide (what and how to learn).	Behavioural engagement, agentic engagement

Authors, year and country	Data collection	Participants	Framework	Key findings	Indications of engagement
Gustavson, D.E., Friedman, N.P., Stallings, M.C., Reynolds, C.A., Coon, H., Corley, R.P., Hewitt, J.K. & Gordon, R.L. (2021)	Self-reported music engagement measures	12 and 16	Musicality, heritability engagement	Instrument engagement (but not singing or dance engagement) was genetically correlated with age 12 verbal intelligence and associated with age 16 verbal ability, music engagement in middle schoolers influences verbal task performance in high schoolers.	Behavioural engagement
Holland, D. (2015)	Recordings of workshops, questionnaires, observation reports, work of children (writing, drawing, recordings, compositions)	in age 7–11	Constructivism	Students might more easily engage with this music by experiencing first-hand how it sounds.	Behavioural engagement
Issaka, A. & Hopkins, L. (2017)	Observations and intervening participation	79 participants: 13 in age 1–4, 54 in age 5–12, 12 in age 13 and above	Flow - Csikszentmihalyi	Combining new technology with professional music pedagogy allowed children to achieve better learning results.	Emotional engagement, cognitive engagement
Jeanneret, N. (2010)	Questionnaires for students and teachers, 2 case studies, observations	1,087 students, mostly secondary schools, one primary school	Musical futures by Lucy Green (2008)	Teachers and the students reported on improved levels of engagement and that the student-centred nature of the approach contributed to this improvement, impact on students' engagement, social learning and development of musical knowledge and skills in a relatively short time.	Cognitive engagement, social engagement, emotional engagement, behavioural engagement

<b>Authors, year and country</b>	<b>Data collection</b>	<b>Participants</b>	<b>Framework</b>	<b>Key findings</b>	<b>Indications of engagement</b>
Jimenez, A.P.M. (2018)	Video and audio record, participants reflect on their own experience and on the music knowledge integrated into the games, post-pre survey	2 groups of 15 participants in age 10–14	Creative and Playful Learning model (Kangas, 2010), Creative Pedagogy (Lin, 2011)	Game co-creation and student-centred learning facilitate engagement.	Emotional engagement, cognitive engagement
Koops, L.H. (2017)	Video, interviews with parents and children	14 participants in age 4–7; 4 adults	Flow – Csikszentmihalyi	Musical enjoyment emerged with physical activity, a balance of familiarity and novelty, inclusion of activities allowing for student control or choice, a safe and playful environment promote engagement.	Emotional engagement, behavioural engagement, agentic engagement
Major, A.E. & Cottle, M. (2010)	Semi-structured interviews	in age 6–7	Bloom's cognitive taxonomy; Vygotsky's ZPD	The children's enthusiasm and engagement with the task (affective engagement) is seen as a prerequisite for evaluative talk, when pupils are engaged in a creative 'hands on' skill-based task, their dialogue and thinking is enhanced by their engagement with the project.	Emotional engagement, behavioural engagement
McFerran, K.S., Crooke, A.H.D. & Bolger, L. (2017)	Interview, transcribed statements	in age 4–18	Engagement in connection with Music Matters programme by D. J. Elliott (2009)	Tailoring music programme to meet the needs and interest of each school community promotes school engagement.	Social engagement

Authors, year and country	Data collection	Participants	Framework	Key findings	Indications of engagement
Miranda, M.L. (2004)	Classroom observations, interviews, field notes, videotapes	kindergarten	Developmentally Appropriate Practice	Engagement can be supported by inclusion of children's requests, inclusion of play, adjustment to individual needs, assessment in authentic contexts, and respect for family contexts.	Behavioural and emotional engagement
Nyland, B. & Acker, A. (2012)	Observations	3-5 years old	Learning Story (Carr, 2001)	Music helped create a relationship between the participants, the role of the adult and the environment was quite different, the children's understandings emerged as they engaged and shared their knowledge.	Emotional engagement, cognitive engagement, agentic engagement, social engagement, behavioural engagement
Qin, X., Zhang, Y., Gu, P. & Lin, L. (2020)	Pre-test and post-test of learning engagement	3 grade	Questionnaire adapted from the "Behavioral Engagement and Disaffection Scale" by Skinner, Kindermann, Furrer (2009)	In the smart classroom environment, cooperative learning strategies reduce students' negative behavioural and emotional engagement. There is no significant effect on positive behavioural and emotional engagement. Pupils are often attracted by irrelevant content on the iPad.	Behavioural engagement, emotional engagement
Richmond, J., McLachlan, N.M., Ainley, M. & Osborne, M. (2016)	Pre- and post-study questionnaires, recorded performances	7-9 years	Harmonix programme, engagement, questionnaires based on scales used by Ainley and Patrick (2006)	Harmonix programme generates sufficient engagement with music activities.	Emotional engagement, cognitive engagement

Authors, year and country	Data collection	Participants	Framework	Key findings	Indications of engagement
Roberts, J.C. (2015)	Small-group interviews, writing experiences, one-item surveys, videotaped observations, examination of material culture	4 <sup>th</sup> grade	Situational interest (Mitchell 1993)	Novelty, physical activity, self-efficacy and challenge, and possibility to be creative support learning engagement in classroom music context.	Cognitive engagement
Ruokonen, I., Tervaniemi, M. & Reunamo, J. (2021)	Observations, teachers' self-evaluations	1-3 years	Vygotsky, Leavers - Leuven Involvement Scale for Young Children (LIS-YC)	Music enhanced more positive emotions, increased social adaptation, more sustained intense activity and less low or interrupted involvement.	Emotional engagement, social engagement, behavioural engagement, cognitive engagement
Ruth, N. & Müllensiefen, D. (2021)	Musical listening tests and self-report questionnaires on psycho-social skills, attitudes, and leisure activities	10-17 years		Musical home environment is associated with lower dropout of musical activities. 50% of those who engage in musical activities drop out by the time they turn 17. Boys sometimes regard musical activities as "feminine" and therefore find them less desirable.	Emotional engagement, behavioural engagement
Scott, S. (2010)	Questionnaires, open-ended questions form teacher to students during classroom music	3 <sup>rd</sup> grade	Constructivism, minds-on, minds-off learning	Minds-on learners think about their musical experiences. Instructional routines may lead teachers to assume that students are engaged in learning when student responses represent unthinking engagement in learning.	Behavioural engagement, cognitive engagement, agentic engagement



<b>Authors, year and country</b>	<b>Data collection</b>	<b>Participants</b>	<b>Framework</b>	<b>Key findings</b>	<b>Indications of engagement</b>
Shouldice, H.N. (2019)	Classroom observations, fieldnotes, video, semi structured interviews, teacher journal entries, researcher memos, lesson plans, assessment tools	1 teacher teaching 1–5 grades	Teacher's beliefs	Music educators' beliefs about students' musical abilities relate to their actions in the music classroom. Working in small groups, enjoying of music and encouraging students' musical independence facilitate lifelong music engagement.	Emotional engagement, agentic engagement, cognitive engagement
St George, J., Holbrook, A. & Cantwell, R. (2014)	Semi-structured interviews	17 primary school students in age 10–12; 35 members of the community 18–75; 17 tertiary students in age 10–25	Affinity, affective learning taxonomy	Music as an agent to encourage the sharing of activities, emotions, and values about music. Higher degree of affective involvement = greater commitment and skill development.	Emotional engagement, cognitive engagement
Suthers, L. & Niland, A. (2007)	Audio recordings of lessons, conversations with parents	3 years	Rating Scale of F. Laevers (2006) adapted by Leuven in Involvement Scale for Young Children	Levels of vocal participation lower than other types of participations, drama and stories facilitate vocal engagement, children are highly engaged using their own ideas in songs.	Behavioural engagement, agentic engagement
Vaiouli, P. & Ogle, L. (2015)	Observations	3–4 years		The use of precomposed songs helps support transition of Autism spectrum disorder (ASD) children and offer structure, song writing promotes phonological awareness and rhyming, and music stations motivate to interact with peers and social communication. Music and music activities promote the learning engagement of ASD children.	Emotional engagement, cognitive engagement, behavioural engagement, social engagement

Authors, year and country	Data collection	Participants	Framework	Key findings	Indications of engagement
Valle, C., Andrade, H., Palma, M. & Hefferen, J. (2016)	Reflections of music teachers, checklists for students (e.g. recorder practice checklist, recorder peer-assessment, recorder self-assessment)	1, 3, 4 grade students	Assessment	By using formative assessment students became more independent in their learning, and assisted students most in need. Clarifying expectations and performance targets, revealing gaps in skills and understanding in relation to expectations and targets lead to higher music achievement.	Social engagement, cognitive engagement
Vazou, S., Klesel, B., Lakes, K.D. & Smiley, A. (2020)	Measurement of children's experiences and perceptions of the rhythmic programme, parental open ended questionnaire	6-11 years	Self-determination theory	Rhythmic movement promotes cognitive engagement.	Cognitive engagement
Veloso, A.L. & Mota, G. (2021)	Observations, two group interviews, the children's artefacts, such as texts or paintings and their musical compositions	4 and 5 class	Transformative music engagement by S. O'Neill (2012)	Deep engagement seems to arise during informal music learning, pupils lost their fears	Emotional engagement, deep engagement
Wilson, E. (2019)	Participant-observation of music lessons, interviews	10-16 years	Musical Futures by L. Green (2008)	The key to students' positive experiences is to maximize their participation in music through the use of instruments and a variety of music curriculum activities. Students like to sing when they choose the music; singing is voluntary and in a participatory situation rather than a presentation situation.	Emotional engagement, behavioural engagement, cognitive engagement

## **Results**

### ***A. Forms and concepts of engagement in pre-primary and primary music education***

Although research has linked musical engagement with educational and developmental outcomes, much of this research simply examines the frequency and duration of arts (music) participation and does not explore different dimensions of learning engagement. 'Musical engagement' is used to refer to musical activities or to replace 'musical instruction' with a reference to informal, playful learning. Music engagement is described in research as the level of active participation in music activities; it is measured by the frequency and regularity of participation and is often described through the authors' personal observations. Nevertheless, engagement is described through different theoretical backgrounds, and different forms of engagement occur.

There is a consensus that engagement consists minimally of participatory behaviour and some affective components. Engagement in early childhood is described by observable indicators of flow experience (Custodero, 2005) and measured with an involvement scale (Laevers, 2006). For instance, for describing the most engaging musical experiences for preschool children of age 3, Suthers and Niland (2007) adapted the Leuven involvement scale, measuring focus, vocal participation and creativity on a five-point rating scale. The Child Involvement Scale, also known as the LIS-YC (Laevers, (2006), states that involvement is a quality of a child's activity. According to Laevers (2015), involvement can be recognized by a child's concentration and persistence, openness to stimuli and intensity of experience, both at the physical and cognitive level.

Given Dewey's (2902) theory that intrinsic motivation is supported by personal meaning rather than structured activities and that the value assigned to the activity is an important component in students' active engagement in music activities (Chin & Rickard, 2012), research in early childhood music education in the context of unstructured music-making activities shows that the process of spontaneous transition to intentional activity develops through exploratory actions, evaluation of outcomes, reasoning and planning by children (Charisi et al., 2018). The value added to the activity by children is an important component of engagement (Chin & Rickard, 2012), and because of the evolution of technology, the approach to engage children in music must change (O'Neill, 2012). Charisi et al. (2018) concluded that the frequency and duration of child-chosen activities indicate cognitive engagement. To enhance learning engagement in music lessons, recommendations are using technologies (iPad) and including children's agency for choosing the music (popular music) in music classrooms (Davis, 2013). However, students may often be attracted to irrelevant iPad content (Qin et al., 2020). Issaka and Hopkins (2017) emphasized the importance of combining new technology and professional music pedagogy to support learning; this includes learning by listening instead of first learning to read notation to represent or create music (Holland, 2015). Music classes should reflect children's out-of-school musical worlds. Research by Major and Cottle (2010) highlights talk and evaluation as parts of reflective music composing activities and the teacher's role in encouraging children's learning through dialogue.

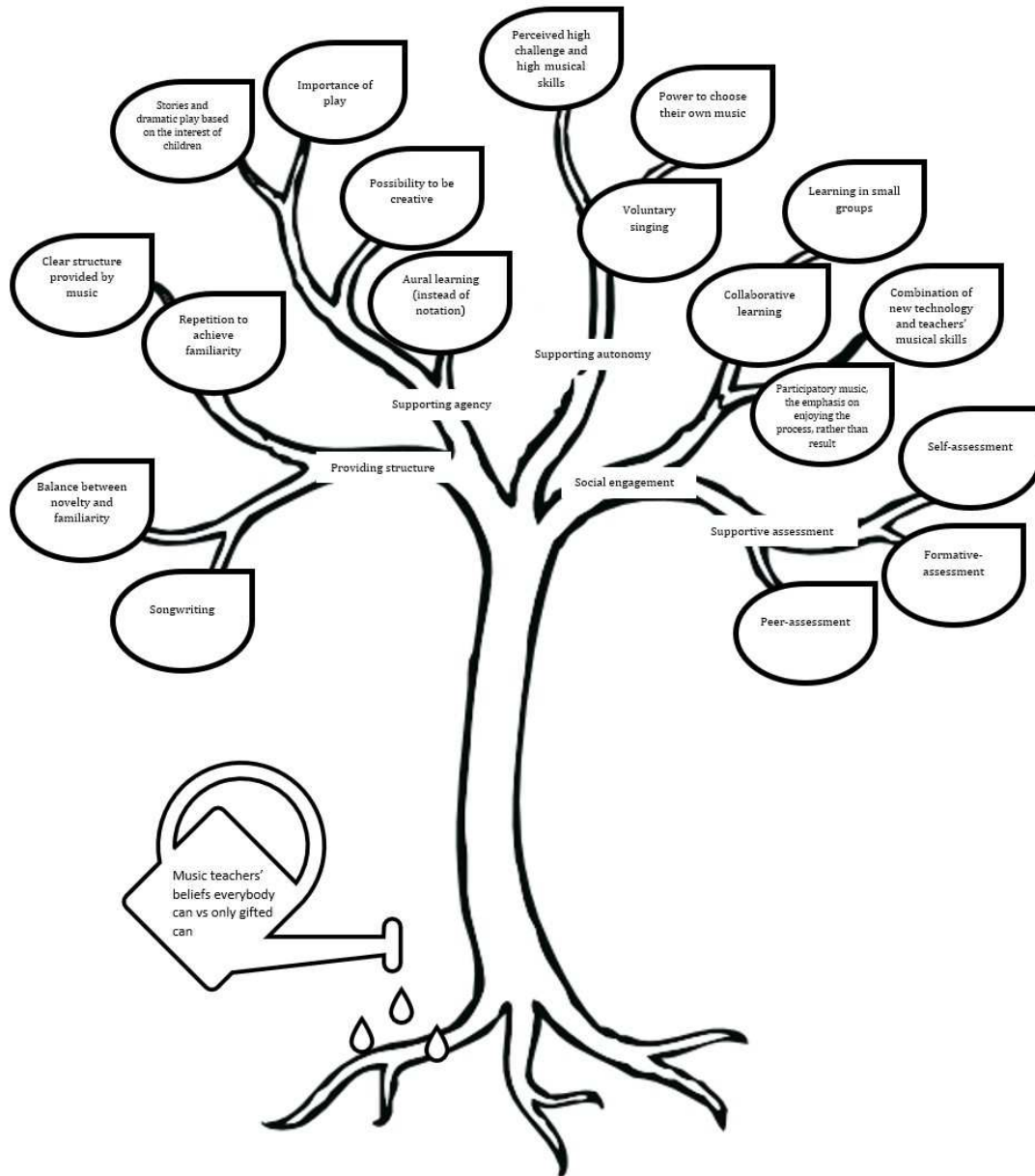
Pre-schoolers choose a task or activity in which to participate according to what they like, which creates positive emotions (Halliday et al., 2018). Reflecting on previous research in this area is a necessary step to engage in the debate about how to promote learning engagement in music. Activities must be perceived as sources of enjoyment, not just their usefulness and to offer possibilities to compose music (Arriaga Sanz & Madariaga Orbea, 2014). Teachers may perceive students' enthusiastic responses to music as chaos and may reduce their engagement in an effort to establish discipline (McFerran et al., 2017).

### ***B. Music as a tool for learning engagement in other subject lessons***

Although early childhood is a critical period of musical development, Bond (2012), reviewing the representation of music in early childhood education scientific journals, concluded that most articles focused on the extramusical benefits of music and that the use of music for non-musical goals is prominent. As music offers a holistic way of education, enchanting engagement in the classroom and supporting the development of academic skills (Bolduc, 2008), music as a tool to promote engagement is a substantial research topic. Music used as a means to engage children in early childhood settings is one point of interest in music, and engagement is a music strategy used to promote engagement of children with disabilities, as music provides a more engaging learning environment (Stephens, 2008; Finnigan & Starr, 2010; Simpson et al., 2013), promotes social engagement among ASD children (Thompson et al., 2014), offers structure and predictability by consistently embodying familiar songs to classroom routines (Vaiouli & Ogle, 2015) and enhances language and literacy skills even by short-term music training (Slater et al., 2013). Although the duration of music lessons and programmes is known, different levels of engagement are rarely reported in studies (Román-Caballero et al., 2022).

### ***C. Facilitators of learning engagement in music lessons according to the literature review***

According to our research, the categories of facilitators of learning engagement in music provide structure, support agency and support autonomy and social engagement, including supportive assessment.



**Figure 2. A musical engagement tree - facilitators of learning engagement in music**

Music teachers' beliefs influence learning engagement, as these beliefs in universal musicality relate to the music learning opportunities they provide for students, leading to positive musical engagement for all individuals; however, the belief in inborn musical talent can negatively affect a person's musical engagement and self-esteem (Miranda, 2004; Shouldice, 2019). Wilson (2019) concentrates on teaching practices that support engagement and offers a model that includes fostering positive emotional engagement, maximizing involvement in music making (through the use of instruments and variety of music curriculum activities), supporting students' autonomy (letting students choose the repertoire for singing), constituting teacher roles (teacher as facilitator, teacher as instructor and teacher as popular musician) and emphasizing the importance of formative assessment. Students like to learn by doing ('playing' not 'working') and learners like to teach, to help each other, to be creative and to express themselves. According to Després and Dubé (2020), some

current teaching approaches hinder learning; most music learners don't like to be lectured and tested, preferring to be active in a collaborative and non-stressful environment. They don't like to be directed in a top-down approach and want to decide on their own (what and how to learn). Formative assessment in elementary music classrooms, including peer and self-assessment, promotes agentic engagement in learning (Valle et al., 2016). Engagement through music activities, songs and music are important factors that support engagement in children's school experience; using music in school resulted in increasing participation in learning activities (Vaiouli, 2014). Custodero (2005) claims that through music and sounds children can act as agents of their own learning. Van Lier (2010) goes beyond saying that agency is the key to engagement. Harwood and March (2012) analyse the differences between formal and informal music education and make suggestions for promoting learning engagement by concentrating on participatory music, where the emphasis is on enjoying the process rather than practising for the outcome. As young children concentrate on one aspect of a situation (e.g. play or story in a song), repetition is important in music activities (Suthers & Niland, 2007). With the latter in mind, folk songs provide an opportunity to take into account the interests and ideas of children as well as to offer repetition. In contrast, Roberts (2015) found that 4<sup>th</sup> grade students perceive the learning experiences interesting because of novelty and suggests using humour and elements of surprise instead of repetition.

## **Conclusions and Discussion**

The purpose of this exploratory review was to examine how learning engagement is explained in research articles concerning preschool and in primary school music education. Contemporary educational research shows that learning engagement has a relevant influence on learning outcomes; however, research on learning engagement in music in preschool and primary school classroom music lessons is scarce (Wilson, 2019).

Teaching and the context of education are constantly changing; neoliberal ideas affect education, and teachers see a contradiction in comparing educational outcomes and valuing a learner's individuality or special needs (Timoštšuk et al., 2018). Another contradiction affects the work of music teachers, which is based on different philosophical approaches to music teaching: an aesthetic or praxial approach to music education (Koopman, 1998). Seeing music education through a praxial approach means giving all students the opportunity to develop their music skills through performance, improvisation, composition and listening, emphasizing that all learners can learn to be creative creators (Elliot, 2009). Drawing on the flow theory (by Mihaly Csikszentmihalyi), Elliot (2009) underlines that when student's knowledge and skills are balanced with a musical task, the result is musical enjoyment. Even in the case of a praxial approach, aesthetics is assumed as a result of music education, and the emphasis is on the quality of the sound produced. In preschool and primary school music lessons, teachers teach repertoires for presentation on concerts, and music lessons are expected to result in children singing in tune and playing pieces without errors. As one of the main applications of music education is that the student acquires knowledge and skills in the field of music through active music making, it is important that music teachers improve the performance of their skills to focus on students' engagement in learning music (Grandena & Machfauzia, 2019). Teachers' words and

actions play an effective role in students' learning engagement (Stefanou et al., 2004), and the encouragement of a music teacher is a key factor in creating a positive connection and lifelong involvement with music for a student (Mõistlik & Rüütel, 2011). In light of ongoing challenges for music education, including primary and preschool teachers feeling the lack of need for musical skills and subject knowledge to provide engaging learning experiences and the accruing evidence of the physical and psychological benefits of learning engagement with music, Estonia could be the place for building knowledge.

Engagement in music learning can be hampered by several different aspects that are specific to classroom music lessons; for example, while the teacher and students are engaged with various activities, such as singing, playing instruments and rhythmic movement, the teacher is presented with logistical dilemmas and the need for group conformity among students of various talent and skill levels. Due to large numbers of students, the potential noise level and additional extracurricular responsibilities, such as performances, festivals and competitions, teaching music may be more stressful (Synder, 1998; Byo & Sims, 2015; Salvador, 2019). An additional aspect to consider is the assessment of pupils' musical development; since the concepts of musicality differ, teachers grade different aspects. According to a study among music teachers in Estonia, music teachers primarily assess musicality as the sense of rhythm, pitch perception and other traditional musical abilities and their development (Mõistlik & Selke, 2011). A music teacher must be able to set specific goals and objectives for a meaningful assessment of students' creative work to bring structure and sequence into students' creative music education (Kratas, 1990).

The Organization for Economic Co-operation and Development plays a leading role in influencing international education policy through Programme for International Student Assessment (PISA) benchmarking, which has provided a new impetus for the standardization of European education systems since the 1990s. The learning outcomes of Estonian students are at the top of the national rankings in all areas of the PISA 2018 survey (Puksand et al., 2019).

Although there is research evidence that engagement in music contributes to studies in other subjects, disengagement in music may be the reason that engagement in all subjects steadily declines over school years. In other words, the key to learning engagement in different subjects may be learning in music lessons. For children to be engaged in music lessons, music teachers should be able to notice and recognize different levels of engagement and support learning engagement in music lessons. Music is integrated into the Estonian compulsory education system, from basic education starting in kindergarten to the gymnasium level, and music teachers at every educational level are professionally trained. Estonia's outstanding formal musical education programme may provide data for valuable input for cross-cultural research on learning engagement in music. Qualitative research is needed to understand the phenomenology of engagement in music lessons in preschool and primary school music lessons.

## Limitations

The limitation of this literature review is that we are using secondary sources, as we are re-analyzing published papers; our results are influenced by the researchers' lenses.

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