eISSN 2501-0158

Daugavpils University

PROBLEMS IN MUSIC PEDAGOGY

Volume 24(1)•2025

PROBLEMS IN MUSIC PEDAGOGY
VOLUME 24(1), 2025

CONTENTS

EDITORIAL

Dear readers,

With great pleasure, I would like to introduce you to the new issue of the PMP Journal, which includes studies reflecting theoretical/practical experience and methodological propositions from South Africa, Greece and Latvia.

With an emphasis on individualised and self-directed learning approaches pertinent to Generations Z (1997–2007) and Alpha (2010–2025) students, study by scientists from University of the Free State (South Africa) Johannes COETZER and Frelet de VILLIERS offers a practical example of adaptation of the Music curriculum at Swedish Grundskola using mobile technology. The adaptation was supported by the Seamless Learning Experience Design system, which promotes an environment for today's students. It focuses on a careful balance between digital and physical learning environments to promote the development of students' skills, cultural sensitivity, and their continuous engagement. The authors particularly note the importance of continuous professional development of music teachers, laying emphasis on training educators for successful technology integration, a strong IT infrastructure, and committed support to guarantee reliability and equitable access.

The study by Greek researcher May KUKKIDOU (University of Macedonia) focuses on aspects of music teacher-student interaction during the process of music learning. Analysing the concepts of several scholars, the author has explored essential aspects: students' rights, democratic education, formal and informal learning, their perceptions outside of school, power dynamics between students and teachers, as well as well-being. Based on a student-centred approach, the author points out that carefully listening to and understanding students' opinions, as well as analysing data about their experiences, behaviours, beliefs, ideas, values, and ideals, opens windows into their thinking.

Promoting inner hearing is important in any musical activity. Gaļina ZAVADSKA, Ilona BAGELE and Agrita PONTAGA from Daugavpils University (Latvia) in their research have elaborated and approbated the levels and indicators as well as designed diagnosing tasks for the development of inner hearing for the 1-st grade learners during the sol-fa teaching process at music school. In the frames of the case study, validation of diagnostic tasks was carried out, and the data obtained were used to develop a strategy and methodology for the development of inner hearing.

We are grateful to the authors of the articles in this issue for their contribution to the development of theory and practice of music education. At getting acquainted with the research findings of our colleagues from various countries, we enrich our own experience, broaden our vision of a music study process and reach the conclusion that we have much more in common than different: the experience of any music teacher, student and scientist is unique. I wish inspiration, perseverance and consistence on the way toward the innovative music teaching/learning for all of researchers, musicians and music educators.

Editor-in-chief
Jelena DAVIDOVA

Problems in Music Pedagogy, Vol. 24(1), 2025, 6–25

ADAPTING A YEAR 9 LGR-22 MUSIC CURRICULUM USING A SEAMLESS LEARNING APPROACH THROUGH MOBILE TECHNOLOGY

Johannes COETZER & Frelet de VILLIERS
University of the Free State, South Africa
emails: 16476956js@gmail.com, devilliersamf@ufs.ac.za

Abstract

In this qualitative study, the Year 9 LGR-22 Music curriculum at a Swedish Grundskola was modified by introducing a seamless learning approach using mobile technology. Combining formal and informal learning, the study aimed to fill a gap in the music education taught at this school and to promote personalised self-directed learning for Gen-Z and Gen-Alpha students. The adaptation of the curriculum was supported by the Seamless Learning Experience Design framework, which promotes an environment that is adaptable, inclusive and student-centred. Autors used convenience sampling to select 13 students who participated in the post-study interviews. Through thematic analysis, were identified the advantages of seamless learning, such as enhanced collaboration, better time and self-management, greater accessibility and increased engagement. Challenges such as diverse levels of student readiness for self-directed learning and the technology infrastructure are acknowledged. A conclusion drawn from the study was that by bridging traditional and digital environments, seamless learning promotes self-empowerment, inclusivity, cross-cultural understanding and lifelong learning. Although the study focused on a Swedish primary school, the findings offer valuable insights into music education pedagogy globally, presenting, as it does, practical approaches to integrating seamless learning by embracing mobile technology to support diverse student needs.

Keywords*: seamless learning, SLED framework, Swedish Grundskola, mobile technology, year 9 Music curriculum, personalised learning, instructional design, student-centred approach*

Introduction

Generations Z (1997–2007) and Alpha (2010–2025) students are strongly influenced by social factors and technological trends. Some of the characteristics associated with Gen-Z students include digital literacy, creativity, curiosity, and social awareness (McCrindle & Wolfinger, 2009). Gen-Alpha students are familiar with smartphones and social media since they have grown up in a technology-saturated world (Patel, 2021). Therefore, to accommodate the needs and capabilities of these groups, it is preferable that school curricula are not presented in the same way as before the onset of the Digital Age. On the contrary, these students need to be stimulated, challenged and allowed to express themselves personally and through their creativity.

For this reason, authors developed a research study that explored the possibility of adapting the Year 9 Music curriculum of the 2022 *Swedish National Curriculum for Compulsory School and Preschool Education* (LGR-22). This curriculum is divided into four units: Theory, History, Performance and Composition. Most of the content is text-

ISSN 1691-2721, eISSN 2501-0158 http://pmp.du.lv https://doi.org/10.59893/pmp.24(1).001

book-based and fails to consider individual student preferences. Therefore, we proposed a more holistic alternative to teaching and learning – a seamless learning (SL) approach – integrating mobile technology across the entire curriculum rather than focusing on only one or two aspects. Seamless learning happens anytime and anywhere across different scenarios, weaving formal and informal experiences through handheld devices and varied technologies, blending personal and social assignments, driving innovation, enabling networking with others and expert engagement, and underpinned by robust assessment approaches (Wong & Looi, 2011; Looi et al., 2012; Wong, 2012; Hwang et al., 2015; Sharples, 2015; Wong, 2015; Durak & Çankaya, 2018).
This approach ensures continuity throughout the school year and has been found to promote a more cohesive educational experience. It may also enhance continuous and personalised mobile learning experiences (Looi et al., 2012; Wong, 2015).
Although previous research has covered several aspects of online, hybrid or blended learning (Greenhow et al., 2022; Kirby & Thomas, 2022), little is known about how a Music curriculum can be adapted by applying an SL approach. One key challenge lies in incorporating technology: teachers often struggle to integrate digital tools into their teaching and learning process (Carrillo & Flores, 2020; Hambrock & De Villiers, 2023). Moreover, implementing technology calls for robust IT systems and significant financial resources for hardware and software – not always available to schools or students. Consequently, while SL-based approaches may offer promising new avenues for contemporary music education, these practical constraints must be considered if integration is to be successful (Robertson & Muirhead, 2019).

Literature Review

Aspects such as SL, its integration with technology, teaching and learning approaches, and key student considerations are discussed in this literature review. These elements contribute to our understanding of the Seamless Learning Experience Design (SLED) framework used to adapt the Music curriculum.

Seamless learning

SL integrates formal and informal learning through digital technologies; it enables continuous individualised education at any time and location (Wong & Looi, 2011). Rusman, Tan & Firssova (2018) define SL in this way: *"SL connects (learning) experiences and learning activities through technology-supported learning scenarios using ubiquitous technology and handheld devices that students experience through participation in various contexts (e.g. formal/non-formal) and hereby supporting, improving and enhancing learning (and support) processes so that students experience a continuity of learning across environments and settings at different times and are, for their learning processes, optimally benefiting from their personal experiences both in and across contexts"* (p. 88).
To meet the educational demands of the 21st century, SL seeks to overcome or circumvent traditional learning boundaries (Wong et al., 2015); to achieve this, it integrates technology in ways that contribute to continuous, contextual, and global education. According to Ng and Nicholas (2007) and Sharples et al. (2007), the characteristics of SL include establishing a pervasive learning environment that both integrates mobile and fixed technologies and facilitates contextual and mobile learning. Furthermore, continuous learning experiences are made possible wherever students are, thanks to ubiquitous learning environments that incorporate educational materials into various other-

wise conventional environments (Chiu et al., 2008; Hwang et al., 2008).

To promote active engagement and individualised feedback, SL uses digital tools such as learning management systems and mobile technologies (Sharples et al., 2007). Moreover, SL tends to promote critical thinking, independence and collaboration among students by bridging the gap between online and offline learning environments (Tervaniemi et al., 2018). By incorporating various educational contexts, this approach may promote lifelong learning and may enhance learning flexibility and inclusivity.

To promote active engagement and individualised feedback, SL uses digital tools such as learning management systems and mobile technologies (Sharples et al., 2007). Moreover, SL promotes critical thinking, independence and collaboration among students by bridging the gap between online and offline learning environments (Tervaniemi et al., 2018). By incorporating various educational contexts, this approach may promote lifelong learning and may enhance learning flexibility and inclusivity.

Role of technology

The evolution of technology in the classroom has influenced and changed students' approach to learning. Game-based learning systems, educational applications and online platforms foster creativity and interaction. By providing students with access to various digital resources that are critical to skills development and personalised learning instruction, technology helps to reduce the 'Digital Divide' gap (Sarkar, 2012). In addition, Yuan, (2023) emphasises how virtual learning environments can contribute to inclusivity, especially for students in marginalised or remote communities. It is important to state that hardware and software are essential to applying SL to a curriculum: together with internet connectivity, mobile devices such as laptops, cell phones and tablets enhance interactive and effective learning (Özer & Demirbatir, 2023).

According to Zhu & Riezebos (2016), dependable and stable internet connectivity is also required to ensure successful and productive access to real-time collaboration and digital resources. The same could be said of a strong information technology support system for teachers and students, and teachers should attend professional development programs to provide them with the know-how and self-assurance needed to embrace technology in their teaching. Moreover, Taylor and Newton (2013) indicate that providing students with appropriate training and coaching can help to close the digital divide and provide them with fair and equal access to online resources.

Alternative teaching and learning approaches

Appreciation of the importance of inclusivity, creativity and active participation in music education is growing (Lindner & Schwab, 2020). Traditional approaches such as direct teaching (Pozo et al., 2022) and rote learning (Lazaric, 2012) may well be effective for foundational skills, but they often limit creativity and critical thinking (Thomas, 2015). In contrast, diverse learning preferences can now be accommodated through personalised and interactive approaches, which are the focus of alternative approaches.

According to Adamek et al. (2015), positive reinforcement, interactive whiteboards, and online quizzes enhance motivation and engagement. However, whereas self-directed learning (Morris, 2019) and multimodal approaches (Pozo et al., 2022) promote auton-

omy and flexibility in students, project-based learning (Cahyani, 2021) serves to connect theory to practical outcomes.

Moreover, differentiation and scaffolding (Tomlinson, 2001; Darrow, 2012) can adjust tasks to varying skill levels, whereas problem-based learning encourages exploration and critical thinking. Blau (2019) and Lebler (2012) have shown that real-time feedback and peer collaboration improve both the knowledge and the abilities of students. It is now widely acknowledged that technology is vital in modern teaching, with flipped classrooms (Bergmann & Sams, 2012) and gamified activities (Rivera & Garden, 2021) fostering engagement and practical skills. Furthermore, experiential learning (Cahyani, 2021) has been shown to deepen students' understanding through engaging them in authentic practice. Kolb (1984) has indicated that experiential activities such as composing and performing promote deeper understanding, whereas, according to Ladson-Billings (1995), culturally responsive approaches serve to validate identities and build empathy. Moreover, incorporating global perspectives enhances cultural awareness, whereas growth mindset approaches (Dweck, 2009) promote resilience. In addition, inclusive practices (Shemshack & Spector, 2020) ensure equity and appropriate teacher training (Yu et al., 2023) supports effective instruction.

Student factors and considerations

Teachers must have a thorough grasp of their students' individual preferences in addition to their socio-emotional dynamics and generational characteristics before they embark on adapting any curriculum to accommodate diverse student factors and considerations. As digital natives (the term 'digital native' refers to a person born or brought up during the age of digital technology and is therefore familiar with computers and the internet from an early age and therefore comfortable with using them (Helsper & Eynon, 2010)), Gen-Z and Gen-Alpha students excel in settings that emphasise technology, innovation and teamwork (Patel, 2021; De Witte, 2022), whereas Gen-Alpha students tend to value dynamic and captivating approaches that encourage creativity and global awareness; Gen-Z students are inclined to favour interactive, personalised and experiential learning that incorporates real-time feedback, autonomy and real-world application (Hosid, 2021).

The curriculum design must also carefully incorporate both intrinsic and extrinsic motivation, as these can play a significant role in determining student outcomes. This is essentially because motivation is important in shaping student outcomes; it therefore, requires careful integration into curriculum design. The difference between the two types of motivation has been explained by White et al. (2020): intrinsic motivation is sparked by curiosity and individual interests, whereas extrinsic motivation is connected to rewards and recognition. Accordingly, teachers can increase students' motivation by setting clear task goals, assigning challenging assignments and providing timely feedback (Wardani et al., 2020).

Finally, because performance anxiety is common among students who engage in music education, it is crucial to include aspects of mental health and socio-emotional learning in the curricula. In this regard, Francis (2023) points out that students who use resilience, mindfulness and gratitude techniques can control their stress levels better and stay more focused. In this context, approaches that encourage resilience, mindfulness,

and gratitude can help students manage their stress levels and maintain their focus on the tasks and content at hand.

Seamless learning experience design framework

The SL approach is the foundation of the SLED framework (see Figure 1), which was created by Hambrock and De Villiers (2023). The framework incorporates technology into formal and informal learning experiences to establish adaptable and inclusive learning environments that promote individualised learning and student engagement, boost motivation and encourage real-world application.

Figure 1. ***Authors' visual representation of the SLED framework by Hambrock and De Villiers (2023)***

Five key concepts make up the framework: core, positive, practical, human and design (Hambrock & De Villiers, 2023). The **core concepts** focus on incorporating alternative teaching and learning approaches, expert engagement, innovation and student networking into the curriculum while also dealing with implementation challenges. This ensures the integration of real-world scenarios and cross-cultural learning into the curriculum, thus fostering an inclusive educational learning environment. The **positive concepts** focus on a student-centred approach, globalisation, practical experiences, preparation for the future, real-time interaction and remote access (Hambrock & De Villiers, 2023).

The establishment of strong organisational policies, infrastructure and support systems to facilitate SL environments is emphasised in the **practical concepts.** These relate to dependable Wi-Fi, access to mobile devices and adequate funding for the required software that underpins SL. The **human concepts** focus on skillsets, time management, technology training, equality and mindset cultivation. Finally, the **design concepts** cover knowledge application, assessment approaches, curriculum design, feasibility, implementation and learning approaches (Hambrock & De Villiers, 2023). By incorporating these five interconnected concepts, the SLED framework provides a comprehensive structure for implementing SL in education, which ensures its adaptability and effectiveness across diverse contexts.

In summary, the literature indicates that the SLED framework affords a continuous, personalised and authentically contextualised music-learning experience by interweaving formal and informal settings through ubiquitous technologies and thereby broadening access, fostering collaboration and cultivating future-ready creative skills (Wong & Looi, 2011; Hambrock & De Villiers, 2023) yet its realisation is constrained by uneven infrastructure, the additional design and facilitation load placed on educators, persistent equity risks for students who struggle with self-direction, and assessment practices that do not readily capture learning that unfolds across multiple contexts (Sharples et al., 2007; Özer & Demirbatir, 2023). Consequently, empirical clarity is still lacking on how SLED can be translated into a practicable sequence of secondary-school music activities, how digital-native students actually experience its affordances and limitations, which institutional supports teachers consider indispensable, and whether such an approach demonstrably enhances engagement, skill development and motivation compared with conventional instruction - questions that the present study addresses through an investigation of design implementation, student perceptions, teacher perspectives and measurable learning outcomes.

While the advantages of SL are acknowledged (Sharples et al., 2007; Wong & Looi, 2011; Kinshuk, 2014; Sharples, 2015; Milrad, 2016; Al-Shahrani et al., 2017; Setyosari et al., 2020; Dindar et al., 2021) a structured framework is absent to help teachers integrate it into the Music curriculum.

Therefore, **the research questions for this study are as follows:** The first question is, what is the viability of adapting the Year 9 Music curriculum by applying an SL approach using mobile technology? The second question relates to the advantages and challenges of the implementation, and the third question refers to the specific modifications that can be implemented to apply SL successfully in a learning environment.

Although the study is based in Sweden, the results are relevant to and significant for adapting any school Music curriculum since the same principles can be applied in any comparable context.

Method

Autjors used a qualitative method to explore the students' perceptions of and engagement with the adapted curriculum. According to Creswell and Creswell (2023), qualitative research is an effective method for ascertaining the emotional and unique responses to social or human matters. The present study was grounded in a pragmatic

paradigm that aims to respond to real-world problems by offering tangible solutions, as described by Kelly and Cordeiro (2020). For this reason, we used a descriptive explanatory framework.

Semi-structured interviews with open-ended non-leading questions were our data-collection method of choice. The purpose of the interviews was to get a reflection of the students on the reworked curriculum to improve further recirculation based on the seamless learning approach. According to (Cohen et al., 2018) semi-structured interviews provide flexibility when extracting participants' points of view. The 12 interview questions (see Appendix) we included focused on aspects such as planning, executing and reflecting on projects; the flexibility of completing projects at anytime and anywhere; the benefits and challenges of using handheld devices; the use of different apps and programs; technological skills; ownership of learning; and aspects of SL that were particularly enjoyable or helpful.

We also used convenience sampling for this study, as described by Clarke and Braun (2017), to select the participants. This type of sampling is based on the participants' availability and proximity (Merriam & Tisdell, 2016). In the present study, the student participants were between the ages of 14 and 16, male and female, and part of the Year 9 classes at a school in Sweden. Both before the implementation of the adapted curriculum and once again at the end of the semester, they were asked if they would like to participate in the interviews at the end of the semester. There was no obligation on them to participate.

Ethical clearance was obtained from our host university (clearance number UFS-HSD2023/0634), and we obtained permission from the school's principal to conduct the study. The participants and their parents received written informed consent letters containing the relevant information (e.g., confidentiality, voluntary participation and detailed information about the study) to sign. Pseudonyms were assigned to protect the participants' identities, and the data were secured on a password-protected laptop. The interviews were conducted in person by a colleague (not the researchers) to minimise personal bias, in a quiet place and at a convenient time for the participants. Before each interview, the participants were informed about the interview's purpose and assured confidentiality. Each interview was recorded and transcribed verbatim to ensure accurate data representation. Regarding the number of participants, Vasileiou et al. (2018) emphasise that the sample size must be adequate if data saturation is to be reached (Creswell and Creswell, 2023). However, Merriam and Tisdell (2016) and Yin (2018) claim that there is no fixed sample size. Based on this assumption, we interviewed 13 willing participants - nine girls and four boys.

The rich qualitative data obtained from the interviews were inductively and thematically analysed, as described by Varpio et al. (2017), Clarke and Braun (2017) as well as Creswell and Creswell (2023). We identified themes through a manual coding process involving a detailed systematic approach, working through the transcriptions repeatedly to familiarise ourselves with the data. Open coding resulted in an extensive list of initial codes, which was narrowed down and combined to form five overarching themes. The next section describes the ways in which the modifications made to the Year 9 LGR-22 Music curriculum shaped these overarching themes.

Modification of the Year 9 Lgr-22 Music Curriculum

We decided to focus on one curriculum to delineate the study. Based on the findings of this study, we envisage conducting further research that will include other curricula and bigger sample sizes.

In the Year 9 LGR-22 Music curriculum (Skolverket, 2022), the students refine their vocal and instrumental skills, explore various musical genres individually and in groups, and study Music Theory and Music History to understand how music shapes identity and society. In this particular curriculum, across 17 lessons, four 45-minute sessions are dedicated to historical contexts, culminating in a presentation. In comparison, 30-minute theory segments form the content of 15 lessons, supported by four quizzes and a theory booklet submission. Seven lessons focus on performance, culminating in a recorded assessment, and four lessons towards the end emphasise creative composition, concluding with a composition assignment and a portfolio of work. This structured yet holistic approach balances theoretical understanding, historical awareness, practical performance skills and artistic expression.

The modified curriculum offered alternative teaching and learning opportunities through integrating project-based individualised and multimodal approaches Torrado et al. (2022) combined with the fundamental concepts of the SLED framework. Music Theory incorporated rote learning, direct teaching and positive reinforcement (Lazaric, 2012; Adamek et al., 2015) whereas Performance, Music History, and Composition encouraged self-directed learning (Morris, 2019). Notwithstanding our challenges, such as financial limitations and limited expert engagement, the digital tools used during the study period promoted innovation, accessibility and real-time feedback. Continuous feedback and rubrics enhanced the measurement of success, whereas ensemble playing and peer collaboration strengthened communication and the students' ability to network with their peers.

The positive concepts included globalisation (allowing students to interact with cultures and music traditions globally), integrating practical experience, and developing critical skills and stage presence through live and virtual performances. This hands-on approach supported the students' preparation for the future by linking theory to practical music-making while facilitating feedback exchange and strengthening foundational skills. Experiential learning, as described by Kolb (1984) and Cahyani (2021), enhanced the students' creativity and problem-solving skills in preparation for possible real-world careers such as, but not limited to, composers, arrangers, musicians and teachers. Real-time interaction enabled immediate feedback (Mandouit, 2018) and improved skills development. It also offered assessments aligned with real-world jobs, which increased the students' satisfaction with the content and the methodology. Remote access through online resources, the use of virtual instruments, and flipped classrooms (Bergmann & Sams, 2012) allowed learning to take place at anytime and anywhere, which fostered autonomy, personalisation and engagement in the students.

The practical concepts focused on hardware and device integration to provide dependable Wi-Fi and Chromebooks to all students. Ample funding ensured inclusive tech-rich education by paying for software and hardware. To promote independent and flexible learning, the students were given access to various software tools, virtual instruments

and flipped classrooms (Torrado et al., 2022). Although technology use and AI policies are still evolving, the experience of this methodology served to emphasise that strong infrastructure supports smooth connectivity and flexible usage of technology. And despite occasional frustrations, effective technology integration enhanced engagement, skills development and equitable access, which enabled the students to learn at any time and wherever they happened to be. Ongoing IT support and personalised instruction quickly resolved technical issues.

The human concepts focus on incorporating technology across the curriculum, which sometimes proves time-consuming and requires adaptation to new platforms and schedules. To deal with this, supportive introductory lessons augmented by additional training sessions (Taylor & Newton, 2013) helped the students develop the necessary technical skills (Morris, 2019). Even though differences in norms and convictions affected how the students interacted with music from different cultures (Ladson-Billings, 1995), most of the students adopted inclusive approaches that supported equality. As described by Dweck (2009) and Sherrington (2019), a growth-focused mindset views setbacks as opportunities for development. This, together with maintaining a positive outlook, sustained their level of engagement, motivation and enjoyment. This method encouraged tolerance for various musical traditions, strengthened equity and empowered the students.

The design concepts included aspects such as applying knowledge that guided the music units by encouraging the students to apply what they had learned to realistic tasks aligned with professional music roles such as composing, curating, or performing (Kolb, 1984; Dewey, 1986). Using theoretical concepts in historical research and instrumental practice demonstrated that the students could translate them into significant results that were also useful. The problem-based activities we introduced and the digital feedback tools were two assessment approaches that encouraged skills development and effective time management (Power, 2019; Winstone, 2019). To ensure authenticity, cultural responsiveness and adaptability, the modified curriculum design integrated self-directed learning that employed a combination of AI resources and direct instruction (Usman & Makassar, 2022). Whereas effective implementation considers class size, scheduling coordination and technical support, feasibility is ensured by choosing free GDPR-compliant apps and immersive activities. Diverse learning approaches, such as self-assessment (Zhukov, 2015; Chen, 2019; Coppens et al., 2023) and the students' use of digital instruments and online platforms, fostered creativity, collaboration and engagement.

Results

Our qualitative deductive analysis of the interviews produced five overarching themes that captured the adapted curriculum's impact on student experiences, learning and personal development. Each theme crystallised from sub-themes, supported by participant quotations to illustrate their experiences and perspectives. To align our findings with the purpose of this article, specific sub-themes are highlighted to emphasise the role of mobile technology and SL in enhancing flexibility, motivation and creativity while also promoting the practical application of these approaches in the Music curriculum. The five overarching themes and sub-themes are the learning environment and accessibility, collaboration and group dynamics, technology integration and tools, time

and self-management, and learning preference and engagement. Each of these themes is expanded upon below.

Theme 1: Learning environment and accessibility

The sub-themes that crystallised into the main Theme 1 are shown in Figure 2. These sub-themes draw attention to essential elements such as theoretical knowledge, practical application and accessibility, demonstrating their importance in creating a welcoming and productive learning environment. The sub-themes (bolded throughout for enhanced clarity) are now examined to illuminate this theme's complex facets.

The numbers seen in the figure can be explained as follows. There were 13 participants who responded to this question (n=13). When we look at, for example, 'Content difficulty', there were seven participants who talked about the difficulty of the content. So, the number given is how many participants talked about the specific topic in their responses.

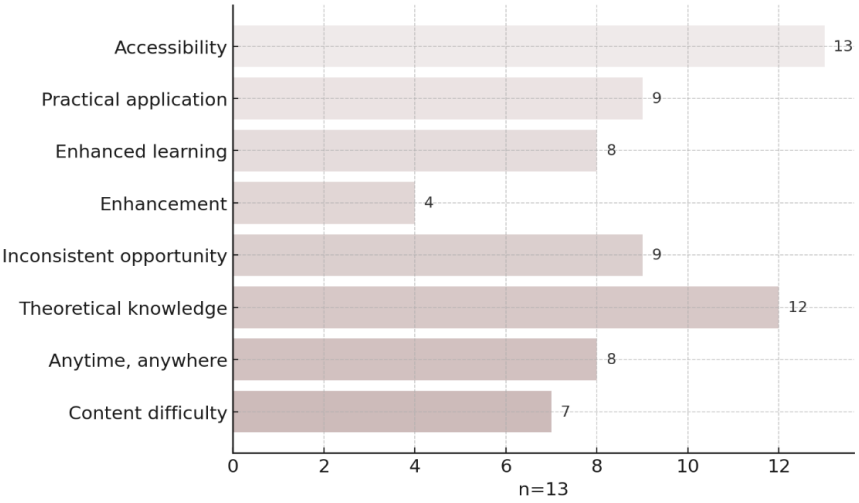

Figure 2. ***Sub-themes of overarching Theme 1***

In their responses, the students emphasised the value of **accessibility**, **theoretical knowledge** and **practical application** in creating a welcoming and adaptable learning environment. With the help of mobile technology such as laptops, tablets and smartphones, students can learn at **anytime, anywhere**, which reduces their stress levels and enhances their **time management**. As the student with the pseudonym Lit shared,

> *I could work on it anytime due to it being online … at home … during breaks at school or whenever you'd like.*

The students were able to compose, practise music theory and make presentations, thanks to resources and applications such as Google Slides, Musictheory.net and Flat.io. Whereas clear instructions on platforms such as Google Classroom ensured efficient access to resources, these digital tools enhanced their comprehension and engagement, promoting effective learning inside and outside the classroom.

Theme 2: Collaboration and group dynamics

As illustrated in Figure 3, the sub-themes that enhance group learning and collaboration include flexibility, emotional and social dynamics, group work, and networking and collaborating.

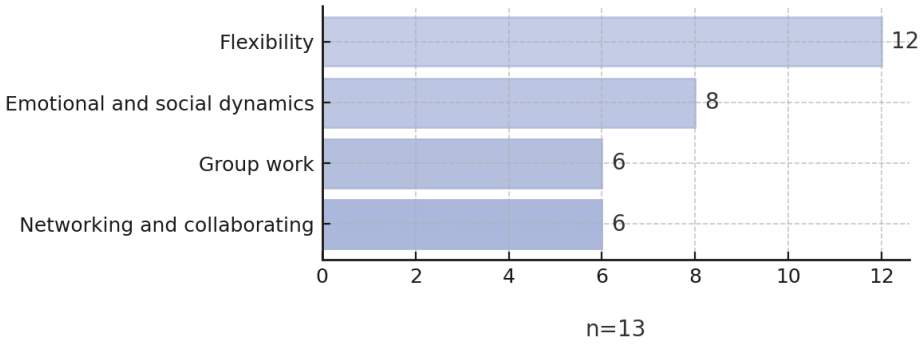

Figure 3. ***Sub-themes of overarching Theme 2***

The students emphasised that music projects gave them the **flexibility** to work at their own speed and in various environments, including their homes, school and free time, which improved their task management. Although sporadic disagreements and scheduling difficulties occasionally interfered with their workflow, **group work** promoted shared responsibility and reduced performance anxiety, creating a supportive atmosphere. Collaboration fostered a sense of community and improved relationships through its **emotional and social dynamics**. Collaboration is essential to academic success, as is evidenced in the sub-theme of **networking and collaboration**. Vibe highlighted the importance of this aspect by saying:

> *Like networking with others, … was used a lot during this curriculum… A lot of people are working together with their performances and their presentations.*

Networking and collaboration showed that teamwork in performances and presentations improved the students' learning engagement and class involvement.

Theme 3: Technology integration and tools

The sub-themes online performance and practice and online composition skills, as shown in Figure 4, emphasise how the students' creativity and proficiency in the music classes were improved by mobile technology.

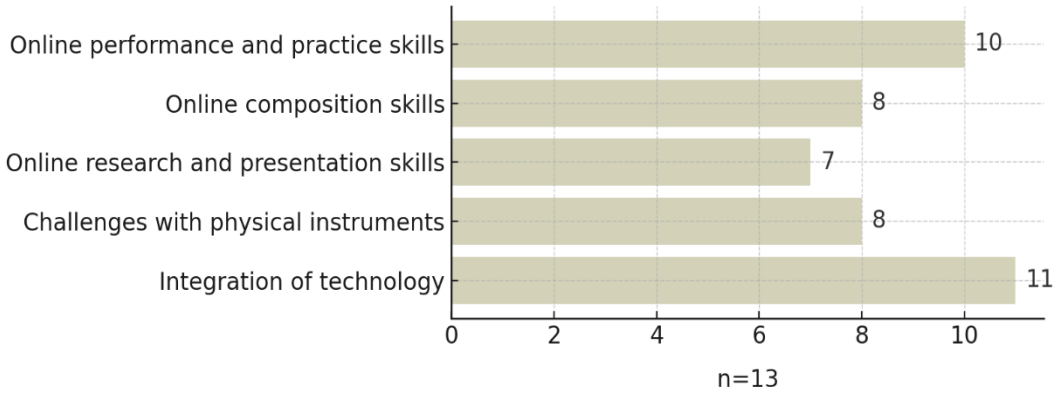

Figure 4. ***Sub-themes of overarching Theme 3***

Websites such as Chord-chord.com, Musictheory.net, Flat.io and YouTube tutorials enabled the students to develop their **theory, performance and composition skills**. In addition, syllable-based song writing and AI tools fostered creative development, and laptops gave users access to performance materials and tutorials. Hype demonstrated this by saying:

'We used flat.io and chord-chord[.com] to compose songs.

These **technologies** promoted proficiency, self-expression and technological competence despite facing challenges such as **restricted access** to physical instruments at home. Once again, this highlighted the critical role that mobile technology can play in contemporary music education. Glow explained that

The digital tools streamlined the learning process by providing immediate access to the necessary materials and resources, both in and out of the classroom.

Theme 4: Time and self-management

The fourth theme, which includes several sub-themes that emphasise critical abilities for learning management, is presented in Figure 5.

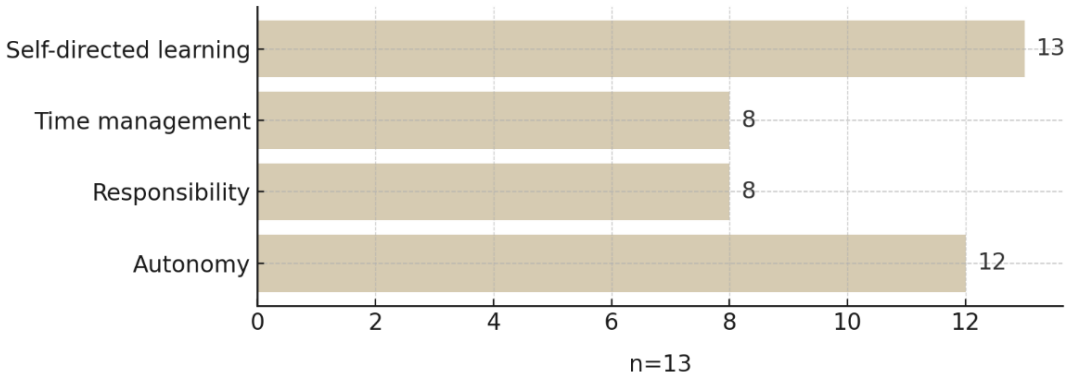

Figure 5. ***Sub-themes of overarching Theme 4***

The sub-theme of self-directed learning emerged from the student responses; it highlighted the ways in which mobile devices facilitated **self-directed learning** throughout the Music units. According to students such as Hype:

Technology helped me learn at their own pace. In music composition, especially, the digital tools were really helpful because it made … it easier to get a hang on … how the notes sound together.

In addition, the sub-theme of **time management** emerged from the student responses, highlighting the importance of planning and organising tasks to meet the requirements of music projects. During the project phases, Lit and other students emphasised how having clear plans helped them to stay organised, effectively manage their time and meet deadlines.

The sub-theme of **responsibility** surfaced naturally, highlighting the significance of students being able to take control of their education. Glow's response encapsulated this idea, which was shared by others who recognised that, although support was available, their progress and comprehension ultimately depended on their efforts. On this point, Glow stated:

Of course, you can get help, but you need to do it yourself.

On the basis of this, the sub-theme of **autonomy** emphasised how students can feel more in charge of their education through personalised learning. Hype highlighted the way personalised experiences deepened their connection with their work, a perspective shared by others who valued having the freedom to choose projects, manage their learning pace and explore areas of personal interest.

Theme 5: Learning preference and engagement

Figure 6 illustrates the ways in which the curriculum became more applicable and inspiring through the use of mobile elements and structured activities, which raised the level of engagement.

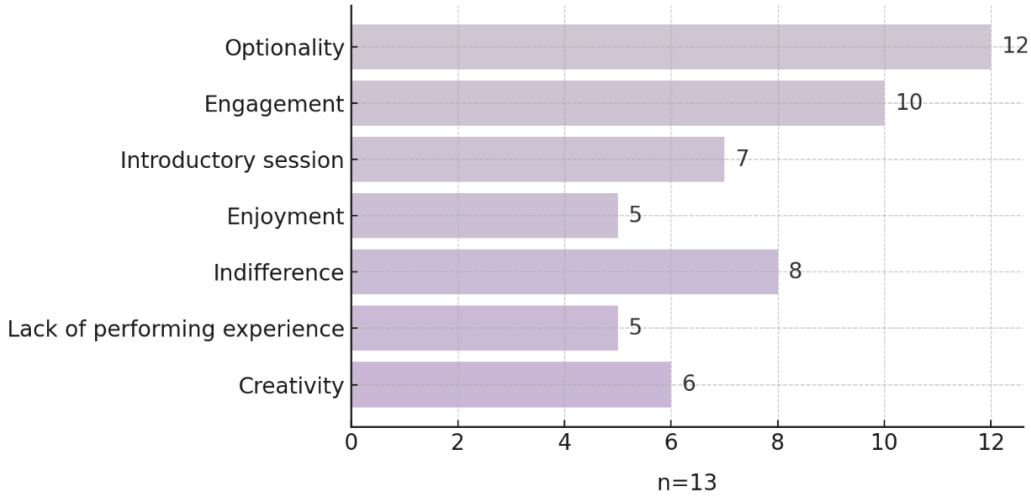

Figure 6. ***Sub-themes of overarching Theme 5***

Combined with a structured approach, practical activities and online tools made the lessons more interactive and relevant. **Enjoyment** was reflected in the students' mixed experiences with the digital tools; while Chill found them 'fun and simple to use', Fire described them as 'frustrating and prone to errors'. These quotations emphasise the im-

portance of finding a balance between personal freedom and clear guidance to optimise **engagement** and pleasure in the learning process.

Discussion

It is interesting to consider the emerging themes in relation to the literature to answer the research questions: 1) the viability of adapting the Year 9 Music curriculum by applying an SL approach using mobile technology; 2) the advantages and challenges of the implementation of SL and 3) the specific modifications that can be implemented to apply SL successfully in a learning environment.

The sub-themes of each overarching theme were visually presented in the figures. With 13 students participating in the interview protocol, the number of participants mentioning a certain sub-theme was indicated. We used the interview questions as a reflection on the adaption of the curriculum to get insights for future reference. The core of the sub-questions will now be discussed.

Viability

We established that it is viable to adapt a curriculum by applying SL, a concept described by Wong and Looi (2011) as well as Sharples et al. (2016). Inspired by the research and positive results described by (Rusman et al., 2018), we initiated the research reported on in this article. The participants' comments show an overwhelmingly positive reaction to implementing SL. Students use technology in a manner that suits their personalised learning preferences, as described by De Vos (2017). High-achieving students used digital platforms to their full potential and experimented with exploring new features to improve their skills.For low-achieving students, the diverse range of digital tools helped them to learn at their own pace.

Advantages and challenges

Adapting the Year 9 Music curriculum resulted in a personalised and self-directed learning environment (Sharples et al., 2007) that met the students' individual needs (De Vos, 2017). This proved to be a major advantage of the approach. Using SL practices together with mobile technology (Looi et al., 2012; Sharples et al., 2016) gave the students access to resources at anytime and anywhere (Theme 1). They choose their approach to learning, set their objectives and manage their time effectively (Theme 4). This approach also promoted critical thinking, collaboration and creativity while improving the students' theoretical knowledge, cultural understanding and performance skills (Theme 2).

One drawback of incorporating the SLED framework is its dependence on expert participation, which may result in uneven access to experts in the event that visits are cancelled despite meticulous preparation. Furthermore, a self-directed learning approach may be difficult for certain low-achieving students to adjust to, which could reduce its overall effectiveness for them. For these students to succeed in such an approach, additional help and modifications are required.

Modifications

By obtaining data from the student feedback, the third research question – which concerns the particular adjustments that can be made to apply SL successfully in a learning

environment – can be responded to. We have some suggestions for changes based on the way SL is used. To implement SL successfully, teachers must receive ongoing support and professional development to enhance their own skills and adaptability. Teachers should use a Goal Role Audience Standards and Product starter to create assessment task sheets that mimic real-world situations. This will help them to define the purpose (Goal), the student's perspective (Role), the target audience (Audience), the evaluation criteria (Standards) and the final output (Product) of a particular project or undertaking. Doing so will help them to create a comprehensive approach that integrates both practical applications and critical thinking.

Encouraging students to set goals, track their progress and focus on self-identified knowledge gaps can improve their encoding and retention of information and skills. To promote students' retention of the learning materials, each unit should begin with an introductory and goal-setting session and conclude with a reflective exercise. Teachers should act as coaches to help students evaluate their learning and select the tools and approaches that best suit their needs. Finally, hardware and software are required to enable and ensure SL and reliable Wi-Fi internet access. Last but not least, the students should be provided with a variety of assessment choices which take into account different skill levels so that they can choose the formats that best fit their learning preferences and strong points.

Conclusions

1. The study revealed that adapting the Year 9 LGR-22 Music curriculum is possible and beneficial by combining formal and informal learning through an SL approach using mobile technology. Underscoring the key findings that such a curriculum empowers self-directed learning and fosters inclusivity, cultural understanding and lifelong learning skills, the students responded positively and displayed increased motivation, autonomy, accessibility and collaborative skills.
2. With an emphasis on individualised and self-directed learning approaches pertinent to Gen-Z and Gen-Alpha students, this study offers a practical example of how the SLED framework can direct modifications to Music curricula for contemporary learners. It focuses on the ways in which a careful balance between digital and physical learning environments can foster skills development, cultural sensitivity and continuous student engagement, which give students the tools they need to thrive in a world that is changing rapidly.
3. The recommendations derived from these observations highlight the significance of ongoing professional development to prepare educators for successful technology integration, a strong IT infrastructure, and committed support to guarantee dependability and fair access. To ensure inclusivity, it is essential to provide scaffolding for those students who struggle academically or lack digital skills and maintain a high level of engagement. Assessments should be created to reflect real-world roles in the music industry. To support motivation retention and adaptability and to ensure that the fundamentals of SL are upheld, educators should encourage their students to set personal goals, track their progress and reflect on their educational experiences.

References

Adamek, M., Darrow, A.A. & Jellison., J. (2015). Kansas Music Review. *KMR - Kansas Music Review*, *5*(1), 29–37. http://kmr.ksmea.org/print.php?issue=201415s&section=articles&page=communication

Al-Shahrani, A., Mann, S. & Joy, M. (2017). Immediate feedback: A new mechanism for real time feedback on classroom teaching practice. *International Journal on Integrating Technology in Education*, *6*(2), 17–32. https://doi.org/10.5121/ijite.2017.6202

Bergmann, J. & Sams, A. (2012). *Flip Your Classroom*. International Society for Technology in Education.

Blau, I. (2019). Real-time mobile assessment of learning. *Advances in Educational Technologies and Instructional Design Book Series*, 283–301. https://doi.org/10.4018/978-1-5225-8106-2.ch014

Cahyani, N.K.C. (2021). Effectiveness of project-based learning models in improving students' creativity (a literature review). *The Art of Teaching English as a Foreign Language*, *2*(1), 73–77. https://doi.org/10.36663/tatefl.v2i1.107

Carrillo, C. & Flores, M.A. (2020). COVID-19 and teacher education: A literature review of online teaching and learning practices. *European Journal of Teacher Education*, *43*(4), 466–487.

Chen, C.W. (2019). Guided listening with listening journals and curated materials: A metacognitive approach. *Innovation in Language Learning and Teaching*, *13*(2), 133–146. https://doi.org/10.1080/17501229.2017.1381104

Chiu, P.-S., Kuo, Y.-H., Huang, Y.-M. & Chen, T.-S. (2008). The ubiquitous learning evaluation method based on meaningful learning. *In Proceedings of the International Conference on Computers in Education*. Taipei, Taiwan. https://www.researchgate.net/publication/228872469_The_Ubiquitous_Learning_Evaluation_Method_Based_on_Meaningful_Learning

Clarke, V. & Braun, V. (2017). Thematic Analysis. *The Journal of Positive Psychology*, *12*(3), 297–298.

Cohen, L., Manion, L. & Morrison, K. (2018). *Research Methods in Education*. Routledge.

Coppens, K., Van den Broeck, L., Winstone, N. & Langie, G. (2023). Capturing student feedback literacy using reflective logs. *European Journal of Engineering Education*, 48(4), 1–14. https://doi.org/10.1080/03043797.2023.2185501

Creswell, J.W. & Creswell, J.D. (2023). *Research Design: Qualitative, quantitative, and Mixed Methods Approaches* (5th ed.). SAGE Publications.

Darrow, A.A. (2012). Students with learning disabilities in the music classroom. *General Music Today*, *26*(1), 41–43. https://doi.org/10.1177/1048371312452875

De Vos, A. (2017). *Interview: Stellenbosch Community Project - d-Piano Lab*.

De Witte, M. (2022, January 3). *Gen Z are not 'coddled.' They are highly collaborative, self-reliant and pragmatic, according to new Stanford-affiliated research*. Stanford Report. https://news.stanford.edu/stories/2022/01/know-gen-z

Dewey, J. (1986). Experience and education. *The Educational Forum*, *50*(3), 241–252. https://doi.org/10.1080/00131728609335764

Dindar, M., Suorsa, A., Hermes, J., Karppinen, P. & Näykki, P. (2021). Comparing technology acceptance of K-12 teachers with and without prior experience of learning management systems: A Covid-19 pandemic study. *Journal of Computer Assisted Learn-*

ing, *37*(6). https://doi.org/10.1111/jcal.12552

Durak, G. & Çankaya, S. (2018). Seamless learning: A scoping systematic review study. *Journal of Education and E-Learning Research*, *5*(4), 225–234. https://doi.org/10.20448/journal.509.2018.54.225.234

Dweck, C.S. (2009). Mindsets: Developing talent through a Growth Mindset. *Olympic Coach*, *21*(1), 1–6. https://www.fizzixfun.com/s/USOC-MINDSETS-by-Carol-Dweck-209-1-1.pdf

Francis, S.L. (2023). Music education and at-risk students: A home for everyone. In *Scholars Crossing*. https://digitalcommons.liberty.edu/doctoral/4724/

Greenhow, C., Graham, C.R. & Koehler, M.J. (2022). Foundations of online learning: Challenges and opportunities. *Educational Psychologist*, *57*(3), 131–147.

Hambrock, H. & De Villiers, F. (2023). Proposing a Seamless Learning Experience Design (SLED) framework based on international perspectives of educators from five higher education institutions. *Electronic Journal of E-Learning*, *21*(1), 52–68. https://doi.org/10.34190/ejel.21.1.2497

Helsper, E.J. & Eynon, R. (2010). Digital natives: Where is the evidence? *British Educational Research Journal*, *36*(3), 503–520.

Hosid, C. (2021, January 21). *Generation Alpha: Designing for the next generation of learners*. Corgan. https://www.corgan.com/news-insights/2021/generation-alpha-designing-for-the-next-generation-of-learners

Hwang, G.J., Lai, C.L. & Wang, S.Y. (2015). Seamless flipped learning: A mobile technology-enhanced flipped classroom with effective learning strategies. *Journal of Computers in Education*, *2*(4), 449–473. https://doi.org/10.1007/s40692-015-0043-0

Hwang, G., Tsai, C. & Yang, S.J.H. (2008). Criteria, strategies and research issues of context aware ubiquitous learning. *Journal of Educational Technology & Society*, *11*(2), 81–91.

Kelly, L.M. & Cordeiro, M. (2020). Three principles of pragmatism for research on organizational processes. *Methodological Innovations*, *13*(2), 1–10. https://doi.org/10.1177/2059799120937242

Kinshuk, K. (2015). Roadmap for adaptive and personalized learning in ubiquitous In Kinshuk, & R. Huang (Eds.), *Ubiquitous Learning Environments and Technologies* (pp. 1 – 15). Springer. https://doi.org/10.1007/978-3-662-44659-1_1

Kirby, L.A.J. & Thomas, C.L. (2022). High-impact teaching practices foster a greater sense of belonging in the college classroom. *Journal of Further and Higher Education*, *46*(3), 368–381.

Kolb, D. (1984). Experiential learning: Experience as the source of learning and development. *Journal of Organizational Behaviour*, *8*(4), 21–38.

Ladson-Billings, G. (1995). Toward a Theory of Culturally Relevant Pedagogy. *American Educational Research Journal*, *32*(3), 465–491. https://doi.org/10.3102/00028312032003465

Lazaric, N. (2012). Rote memorization. In *Encyclopaedia of the Sciences of Learning*, 2899–2901. https://doi.org/10.1007/978-1-4419-1428-6_245

Lebler, D. (2012). Technology and students' musicking: Enhancing the learning experience. *Theory Into Practice*, *51*(3), 204–211. https://doi.org/10.1080/00405841.2012.690302

Lindner, K.T. & Schwab, S. (2020). Differentiation and individualisation in inclusive education: A systematic review and narrative synthesis. *International Journal of Inclusive Education*, 1–21. https://doi.org/10.1080/13603116.2020.1813450

Looi, C.K., So, H.J., Chen, W., Zhang, B., Wong, L.H. & Seow, P. (2012). Seamless learning. In *Encyclopaedia of the Sciences of Learning*, 2975–2979. https://doi.org/10.1007/978-1-4419-1428-6_251

Mandouit, L. (2018). Using student feedback to improve teaching. *Educational Action Research*, *26*(5), 755–769. https://doi.org/10.1080/09650792.2018.1426470

McCrindle, M. & Wolfinger, E. (2009). The ABC of XYZ: Understanding the global generations. In *Google Books*. The ABC of XYZ.

Merriam, S.B. & Tisdell, E.J. (2016). *Qualitative Research: A guide to design and implementation* (4th ed.). Jossey-Bass, Cop.

Milrad, M. (2016). An evolutionary perspective on mobile learning: From research and pilot oriented to scalable and sustainable. *DeLFI*, 17–18.

Morris, T.H. (2019). Self-directed learning: A fundamental competence in a rapidly changing world. *International Review of Education*, *65*(4), 633–653. https://doi.org/10.1007/s11159-019-09793-2

Ng, W. & Nicholas, H. (2007). Ubiquitous learning with handhelds in schools. In *Proceedings of the International Conference on Mobile Learning 2007*, 186–193.

Özer, Z. & Demirbatir, R.E. (2023). Examination of STEAM-Based Digital Learning Applications in Music Education. *European Journal of STEM Education*, *8*(1). https://eric.ed.gov/?id=EJ1377876

Patel, N. (2021). *Alpha Generation: Marketing tips for targeting gen alpha*. https://neilpatel.com/blog/generation-alpha/

Power, R. (2019). *Technology and the Curriculum: Summer 2019*. Power Learning Solution.

Pozo, J.I., Torrado, J.M. & Alacid, L.M. (2022). *Learning and Teaching in the Music Studio*. Springer. https://doi.org/10.1007/978-981-19-0634-3_2

Rivera, E.S. & Garden, C.L.P. (2021). Gamification for student engagement: A framework. *Journal of Further and Higher Education*, *45*(7), 999–1012. https://doi.org/10.1080/0309877x.2021.1875201

Robertson, L. & Muirhead, B. (2019). Unpacking the privacy paradox for education. In *Springer Proceedings in Complexity* (pp.27–36). https://doi.org/10.1007/978-3-030-30809-4_3

Rusman, E., Tan, E. & Firssova, O. (2018). Dreams, realism and critics of stakeholders on implementing Seamless Learning Scenario's in Dutch Secondary education. In D. Parsons, R. Power, A. Palalas, H. Hambrock & K. MacCallum (Eds.), *Proceedings of 17th World Conference on Mobile and Contextual Learning* (pp. 88-96). Concordia University Chicago, Chicago, IL, USA. https://www.learntechlib.org/p/184927/.

Sarkar, S. (2012). The role of information and communication technology (ICT) in higher education for the 21st century. *The Science Probe*, *1*(1). https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=8582a7d8de9ca9172fbfd548af9c63e763e53e7d

Setyosari, P., Kuswandi, D. & Ulfa, S. (2020). Development of seamless learning to facilitate formal and informal learning in elementary education. *The New Educational Review*, *61*(3), 51–62. https://doi.org/10.15804/tner.20.61.3.04

Sharples, M. (2015). Seamless learning despite context. *Seamless Learning in the Age of Mobile Connectivity*, 41–55. https://doi.org/10.1007/978-981-287-113-8_2

Sharples, M., de Roock, R., Ferguson, R., Gaved, M., Herodotou, C., Koh, E., Kukulska-Hulme, A., Looi, C.-K., McAndrew, P. & Rienties, B. (2016). *Innovating Pedagogy 2016: Open University innovation report 5*.

Sharples, M., Taylor, J. & Vavoula, G. (2007). A theory of learning for the mobile age. In C. Haythornthwaite, R. Andrews, J. Fransman, & E.M. Meyers (Eds.), *The SAGE Handbook of E-learning Research,* 2nd edition. SAGE, pp. 63-81. https://www.researchgate.net/publication/343099651_A_Theory_of_Learning_for_the_Mobile_Age

Shemshack, A. & Spector, J.M. (2020). A systematic literature review of personalized learning terms. *Smart Learning Environments*, *7*(1). https://doi.org/10.1186/s40561-020-00140-9

Sherrington, T. (2019). *Rosenshine's Principles in Action*. John Catt Education.

Skolverket. (2022). *Läroplan för grundskolan, förskoleklassen och fritidshemmet – Lgr22*.

Taylor, J.A. & Newton, D. (2013). Beyond blended learning: A case study of institutional change at an Australian Regional University. *The Internet and Higher Education*, *18*, 54–60. https://doi.org/10.1016/j.iheduc.2012.10.003

Tervaniemi, M., Tao, S. & Huotilainen, M. (2018). Promises of music in education? *Frontiers in Education*, *3*. https://doi.org/10.3389/feduc.2018.00074

Thomas, C. (2015). Active listening: Teaching with music. *Yale Center for Teaching and Learning* (November 30, 2015). https://campuspress.yale.edu/yctl/active-listening/

Tomlinson, C.A. (2001). *How to Differentiate Instruction in Mixed-ability Classrooms.* ASCD. https://books.google.com/books?hl=en&lr=&id=A7zI3_Yq-lMC&oi=fnd&pg=PR5&dq=Tomlinson

Torrado, J.M., Echeverría, M.G. & Pozo, J.I. (2022). Learning music through ICT. In *Learning and Teaching in the Music Studio: A student-centred approach* (pp. 261–274). Springer Nature Singapore. https://doi.org/10.1007/978-981-19-0634-3_12

Usman, H. & Makassar, U. (2022). Implementation of the Direct Learning Model (Direct Instruction) to improve skills art of music in SBDP lessons for class V students UPT SDN 3 Selayar Islamic District Bontoharu District of Selayar Islands. *International Journal of Elementary School Teacher*, *2*(1). https://doi.org/10.5937/IJESTxxx

Varpio, L., Ajjawi, R., Monrouxe, L.V., O'Brien, B.C. & Rees, C.E. (2017). Shedding the cobra effect: Problematising thematic emergence, triangulation, saturation and member checking. *Medical Education*, *51*(1), 40–50.

Vasileiou, K., Barnett, J., Thorpe, S. & Young, T. (2018). Characterising and justifying sample size sufficiency in interview-based studies: Systematic analysis of qualitative health research over a 15-year Period. *BMC Medical Research Methodology*, *18*(1), 1–18.

Wardani, A.D., Gunawan, I., Kusumaningrum, D.E., Benty, D.D.N., Sumarsono, R.B., Nurabadi, A. & Handayani, L. (2020). Student learning motivation: A conceptual paper. In *Proceedings of the 2nd Conference of Early Childhood and Primary Childhood Education (ECPE 2020)* (pp. 275–278). https://doi.10.2991/assehr.k.201112.049

White, K.M., Uhlenberg, J.E. Nielsen, L. & E. Montgomery, S. (2020). Student motivation. In *The SAGE Encyclopaedia of Higher Education*. https://doi.org/10.4135/9781529714395.n546

Winstone, N. (2019). Facilitating students' use of feedback: Capturing and tracking impact using digital tools. In M. Henderson, R. Ajawi, D. Boud, & E. Molley (eds.), *The Impact of Feedback in Higher Education* (pp. 225–242). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-25112-3_13

Wong, L. (2012). A learner-centric view of mobile seamless learning. *British Journal of Educational Technology*, *43*(1), E19–E23.

Wong, L.H. & Looi, C.K. (2011). What seams do we remove in mobile-assisted seamless learning? A critical review of the literature. *Computers & Education*, *57*(4), 2364–2381. https://doi.org/10.1016/j.compedu.2011.06.007

Wong, L.H., Milrad, M. & Specht, M. (2015). *Seamless Learning in the Age of Mobile Connectivity*. Singapore Springer Singapore.

Wong, L.-H. (2015). A brief history of mobile seamless learning. In L.-H. Wong, M. Milrad, & M.Specht (Eds.), *Seamless Learning in the Age of Mobile Connectivity* (pp. 3–40). Springer.

Yin, R.K. (2018). *Case Study Research and Applications Design and Methods*. California Sage.

Yu, X., Ma, N., Zheng, L., Wang, L. & Wang, K. (2023). Developments and applications of artificial intelligence in music education. *Technologies (Basel)*, *11*(2), 42. https://doi.org/10.3390/technologies11020042

Yuan, L. (2023). Online Music Teaching Model based on machine learning and neural network. *Research Square*. https://doi.org/10.21203/rs.3.rs-2789282/v1

Zhu, Z.T., Yu, M.H. & Riezebos, P. (2016). A research framework of smart education. *Smart Learning Environments*, *3*(1). https://doi.org/10.1186/s40561-016-0026-2

Zhukov, K. (2015). Challenging approaches to assessment of instrumental learning. In D. Lebrer, G. Carey, & S. Harrison (Eds.), *Assessment in Music Education: From policy to practice* (pp. 55–70). Springer. https://doi.org/10.1007/978-3-319-10274-0_5

Received 30.03.2025
Accepted 02.06.2025

STUDENTS' ACTIVE VOICES AND STUDENT-CENTEREDNESS IN SCHOOL MUSIC EDUCATION

May KOKKIDOU
University of Macedonia, Greece
Kryovrisi, Eordaia, Greece, 50200
email: ugenius@otenet.gr

Abstract

Students, even the younger ones, have a lot to say about their meaningful experiences in school as a whole. However, the school system and teacher-directed pedagogies fail to cater their individual needs and existing interests. In school music education, students' perspectives and expectations have been almost overlooked. At what degree do we know students' standpoints regarding music lessons and teachers? Understanding their highly significant expressions is a valuable key to reform the music educational issues and policies. In this paper, the author look at the recent literature on students' views and student-centered approaches, focusing on the vantage points of music teacher-learner interactivity. In reseacher's opinion, more educational study is needed to further explore the importance of students' voices in school music education.
Throughout this article, the usage of "we" refers to us as music educators.
Keywords: *student-centered approach, children's rights, music education*

Introduction

Education develops the identity and consciousness of human beings, preparing them for prosperity and welfare, by empowering and enriching skills, knowledge, creativity, and physical, personal, cultural, social, mental, emotional, ethic, and aesthetic values. It does not exist as a monolithic concept or a goal per se, nor as a linear path. It opens minds. It is a practice of trials and errors, productive inquiry and exploration, with the stakes being the future of a society, its demands, and opportunities.

Learning is a complex, multidimensional phenomenon, a necessary condition for social growth. Meaningful learning has equivalents in creative change and critical transformation. It is a way of thinking, doing, relating, being, and becoming. It occurs best in a connected and trusting environment that contains helpful communication and interactions in which the students feel appreciated and respected. Individuals can live in a culture of peace with dignity, acceptance, tolerance, responsibility, and social justice, with a dislike for violence, mistreatment, and exclusion. Students interact to ascribe meaning to certain experiences. This argument positions educators as co-constructors of knowledge. Embracing the student experience is the starting point of education and the focal point of the curriculum.

Article 12 of the UNCRC (United Nations Convention of the Rights of the Child, 1989) states that children have a basic right to participate in all matters affecting them and to voice their opinions up to the age of 18 years. Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance

with the age and maturity of the child. Children have the right to freedom of expression (UNCRC, 1989, Article 13) in the spirit of understanding, peace, tolerance, gender equality, and friendship among ethnic and religious groups (UNCRC, 1989, Article 29). Supporting the student's personal experience is a tool for student-centered processes. Really careful listening to and understanding students' voices and analyzing data on their experiences, behaviors, beliefs, ideas, values, and ideals open windows into their thinking (Kokkidou, 2017).

Student-centered approach has been used *"to signalize an important shift in education from that which is teacher-centered"* (Tang, 2023, p. 72). When students' voice is taken seriously in the co-design of learning, positive skills are likely to emerge, such as: safety, autonomy, confidence, communication skills, identity exploration, engagement, self-determination, responsibility, self-esteem, and a sense of belonging (Toshalis & Nakkula, 2013; Chang & Hall, 2022). In the present article I focus on the vantage points of music teacher-learner interactivity in school music education. Fostering students' voices in school cultures might need willingness to listen to their music concerns, opinions, and hopes.

Research Concerning the Effectiveness of Student Voice and Student-centered Practices in School

Students' voices and student-centered approaches present a promising pathway for redefining education. Quaglia and Fox (2018) designate student voice as a procedure that *"involves sharing thoughts, ideas, beliefs, and opinions in a safe environment built on trust and respect"* (p. 14). The range of student voice, according to Toshalis and Nakkula (2013), focuses on motivation, commitment, compulsory curriculum, dedication, and academic achievement. It is the right of students to actively participate in educational decision-making processes (Quaglia & Fox, 2018) in the feedback of school practices and in a democratic vision (Charteris & Smardon, 2019). For Dewey (1916), the public nature of dialogue is at the centre of democratic practices. According Greene (1995) writes that democracy *"means a community that is always in the making"* (p. 39).

Schools' institutional structures have remained locked in hierarchical patterns (Charteris & Smardon, 2019). The tension of power often suppresses student voice advocacy (Flores & Ahn, 2024). If the children's interests are not at the forefront, the children will feel rejected, frustrated, and unsupported (Mitra, 2018; Pearce & Wood, 2019). Pressing this point a bit further, there is another caveat with some misconceptions. To be specific, *"student-centered approach is not without drawbacks"*; it could result in a lack of control and the classroom could become *"noisy and disorganized"* (Tang, 2023, p. 73). Many educators claim to implement student-centered learning in practice but, in reality, this is not the case (Charteris & Smardon, 2019). The risks involve the loss of teachers' authority. Teachers tend to listen only to the students who will say what they want to hear. Several voices of student population are not even acknowledged. This can be seen as a sign of authoritarianism in an insidious way.

The student-centered learning concept can mean different things to different people in a variety of school contexts and structures. Although the top-down indicators, such as academic results, measurable skills, standardised, summative assessment system, test-

ing and competitions, can predict some of the future effects of education, the bottom-up factors, when children feel welcome, finding the learning activities to be authentic and engaging, can have a greater impact on their long-term development (Saltari & Kokkidou, 2024). The overbearing, controlling, authoritarian, monolithic top-down strategies, by priori mandated and forced curriculum decision, have inability to reach all students. The bottom-up pluralistic principle deals with uncertainty, diversity, and openness. The bottom-up and top-down approaches do not exist independently but relate each other in parallel, inseparable structures. They rarely operate independently. Their productive and synergistic interaction is promoted as a principle for a multitude of applications, generating collective benefits.

The change and the re-shifting of power balances are very prominent themes regarding the role of student voice in traditional teaching environments (Mitra, 2018; Charteris & Smardon, 2019). In the literature review, the key themes that emerge are children's rights, democratic education, formal and informal learning, children's out-of-school perceptions, the power dynamics between students and teachers, and well-being.

Nevertheless, students often have little or no voice, their opinions have been neither heard nor welcomed. Students' voices are seldom stimulated and amplified in schooling and in curriculum planning (Kokkidou, 2017; Quaglia & Fox, 2018; Charteris & Smardon, 2019). It is one of the most neglected aspects and lacks legitimacy, perhaps because it reveals what happens and what does not change in school life. The conformist, dysfunctional system of schooling *"is guilty for its inability to place student voice at the centre of teaching-learning procedures; it is guilty for its tendency to marginalize students who do not exhibit certain academic characteristics"* (Kokkidou, 2017, p. 311). The reason is that we do not make things ***with*** the children, ***from*** them and ***for*** them. Students are at the bottom of the school hierarchy. They do not express themselves. The curriculum is disconnected from the larger picture of students' lives.

The student-centred requirements often make an "add-on" task for teachers. It is not easy for them to say goodbye to their and authority status and move into unknown territories. This is most important in the classroom. Greene (1995) denoted that teachers and students should enter into a *"collaborative search"* (p. 23) through awareness, dialogue, relationship and wide-awakeness. In the democratic journey of the wide-awakeness, teachers must be wide-awake themselves in order to be engaged with the conflicts of the larger social fabric.

School climate and teachers' inter- and intra-personal skills is the key to understanding students' experiences (Kokkidou, 2017; Chang & Hall, 2022). Numerous studies make it clear that student voice may promote the school improvement or reform efforts and lead to advantages in the creation of democratic schools and societies (Toshalis & Nakkula, 2013; Kokkidou, 2017; Mitra, 2018; Quaglia & Fox, 2018; Després & Dubé, 2020; Flores & Ahn, 2024). In support of reform efforts (UNCRC, 1989), students are not necessarily immature and unreliable. Their language serves as a means by which the process of expressing ideas and priorities is realized. Of course, even disagreement must take place within dialectical structures of reconciliation. We have to remember that democracy meant that we have rights and responsibilities. Democracy requires boundaries, cooperation, mutual justice, ongoing support, care for the collective good, and critical awareness. Unlimited freedom is not democratic. The issue of respect and human dignity is very demanding.

It is evident that many young people experience school as oppressive because they do not have a forum to express their views or to challenge the injustices they have experienced (Hess, 2019; Pearce & Wood, 2019). Giving primacy to students' voices, *"we should be able to better understand the drivers of their discontent with respect to their schooling, and acquire a more detailed and broader picture of school problems"* (Kokkidou, 2017, p. 229). The absence of voice is more evident in students from marginalized backgrounds (immigrants, refugees, minority groups, religion orientation and fundamentalism, students with physical or cognitive (dis)abilities, LGBTQIA+ communities, patriarchy of Eurocentric high culture, economically disadvantaged students, abandoned and destitute students, harassment, bullying, gangs etc.), in instances of discrimination or bias. Many schools represent the views of the dominant culture and undervalue the voices from marginalized cultures. These are especially deep inequalities. In contrast to this standpoint, dialogue with marginalized students can promote the acceptance of differences among students (Hess, 2019; Orzolek, 2021; Flores & Ahn, 2024). On the contrary, approaches that focus on power relations between youth and adults as well as on the social dominance-avoidance dichotomy do not equate to effective outcomes (Giroux, 2001; Mitra, 2018; Pearce & Wood, 2019; Charteris & Smardon, 2019; Chang & Hall, 2022). When students feel that they are respected, they became more willing to talk openly and honestly about the difficulties they experience and their displeasure about schooling. Finally, there is a great call for smaller classes in schools. Small size enables a comfortable, social-emotional atmosphere within conditions of synergy.

The students' narratives are vehicles for their personal, social, and cultural experiences. They formulate students' own memories, thoughts, and reflections, assisting them to express their feelings and to enrich understandings of self and other. They allow students to weave their stories into the fabric of the classroom community, encouraging a culture of "we" and belonging. Their personal, descriptive stories mean the pathways they have followed and the routes they intend to follow within a cultural and social framework. The narratives of their satisfactions, dreams, insecurities, and fears critique what might not be right and consider worlds that might be better than the one they inherit. Apart from talking-listening project, students can participate through written stories, drawings, cartoons, collages or poster boards, song lyrics, poems, drama roles, videos, embodied movement, and playing with puppets. The stories that they hold, have a metaphoric expression of their learning affairs. Through their voices, observable signals and non-verbal utterances such as facial expression, body gestures and position, laughter as well eye gaze/contact, students can accept other people's ideas and will realize that others may see things differently from them.

Students recognize that the thorny, bureaucratic, outdated schooling system, which remains content-driven, is not responsive to their various needs. There is not a "one-size-fits-all" traditional model. As we have seen, students' active viewpoints, from an 'insider' perspective, are a vitally important consideration in a student-centred environment, improving students' engagement, leadership skills, motivation, encouragement, and well-being, across school years. In a culture of generosity, the hopeful, student-oriented classroom climate, and a friendly atmosphere have high priority from a pedagogical perspective. It becomes a serious means of breaking of learners' silence. Supportive, inclusive, intentional, and liberating school structures are needed to scaffold reciprocal relationships. Here again, such approach shows that schools, context, climate, class-

rooms, teacher-student and peer relationships are influenced by many factors.

Critical Pedagogy for Music Education and Students' Voice

Critical Theory has emphasized the links between culture, liberation, humanization, solidarity, equity with oppression, overwhelming control, and power. Freire (1970), Giroux (2001) and other social justice activists, advocated the revolutionary, critical pedagogy, where knowledge is liberated through intense dialogues, discourses and contemplation. Teacher and students take authority and action in a process of mutual learning and development, and call for a more pluralistic approach to the curriculum, without power imbalances. In a dialectical, commutative and empowering context, classroom dialogue should not be hindered by authoritarian practices or dominant culture. Freire (1970) proposed the pedagogical notion of *"teacher-student with students-teachers"* (p. 80), where both work with one another, continuously and reciprocally through dialogue. Critical pedagogy maintains that students are *"critical co-investigators in dialogue with the teacher"* (p. 81). The teacher is no longer the one-who-teaches neither the sole "owner" of knowledge. Freire, considers teaching as a social-political act where teachers and students converse, renegotiate, and co-create knowledge, becoming jointly responsible for the educational processes in which all grow. Traditional education does not form a critical consciousness because it is disconnected from life. Education is never a neutral activity.

Educators are not prepared, as Giroux (2001) has noted, to understand what is happening to youth. School's pedagogical practices discourage democratic participation. The social constructs reproduce privilege, biases, and stereotypical perception. Freire (1998) writes that *"our relationship with the learners demands that we respect them and demands equally that we be aware of the concrete conditions of their world, the conditions that shape them. To try to know the reality that our students live is a task that the educational practice imposes on us: Without this, we have no access to the way they think, so only with great difficulty can we perceive what and how they know"* (p. 58).

Critical Pedagogy for Music Education (CPME) views schools as a means of empowering students to resist and liberate themselves from structural and cultural injustices, as well as from the ideologies and imposed concepts of the dominant culture and its values (Bates, 2017). Critical thinking and action promote dimensions of resistance to oppression, dogmatism, and coercion, allowing students and teachers to engage in interactive problem solving and dialogue, and to achieve critical consciousness (Freire, 1970) and the change that occurs in the classrooms (Abrahams, 2005; Schmidt, 2005), with a more in-depth understanding and exploration of the music world (Martignetti et al., 2013; Després & Dubé, 2020). Music educators anchor critical pedagogy to their instruction and to their students' lived experiences, at an individual as well as a group level. Abrahams (2005) suggests that all critical music educators, regardless of the context in which they teach, should ask themselves the following questions: 1) Who am I? 2) Who are my students? 3) What could they become? 4) What could we become together? (p. 63). The aim of this suggestion is to serve sub-questions, such as: What biases (musical and otherwise) do teachers bring to their students? What are the realities students are bringing to the music classroom? How might teacher honor students' world? How might students and teachers engage in dialogue that demands new answers? Obviously,

there are no clear, definite, or single answers. In the context of their own situations, teachers will respond in different manners.

Students' Voices in Music Education: Music student voice is both a process and an outcome

Music education is a physical, cultural (and subcultural), social, collaborative, creative, intellectual, emotional, ethical, spiritual, aesthetic, ideological and existential praxis. It is a constant flux tradition, changing with time and place. The ideal music education motivates students to examine alternative ideas concerning musical phenomena, and reflect on their music ideas. Music education is not cultural museum. The way we think about music and music education is closely related to how we think about people, the common good, modern society, and the multiplicity of its representations. These aspects intersect and are integrally linked.

We live in a contemporary, ever-changing musical world saturated with media messages and characterised by multiple perspectives, uncertainties and incessant change. Music in schools should reflect what students know and perceive as music in a globally-connected world. Students' strong voice operates as a vital vehicle for redefining and transforming music education. Student-centered curricula seek and value students' insightful points of view. The truly remarkable thing is that music educators should always aim to better understand their students, the nature of students' musical abilities, and their aesthetic inclinations. The worthwhile, holistic student-centered music education begins with the characteristics of the students themselves. It acts as an ice-breaker, generating a call for belonging and significant participation in their vibrant community. It is equally important when and where a student learns music.

I believe that children's views are one of the most neglected aspects of research. While the interest on the learner voice and student-centered orientations has soared currently in the field of music education, the body of literature is still relatively small with limited impact in educators, contemporary school researchers, and policymakers (Spruce, 2015; Després & Dubé, 2020; Economidou Stavrou & Papageorgi, 2021; Saltari & Kokkidou, 2024). In a more pessimistic picture, teacher makes no room for students' voice, following the asymmetrical nature of the power. Students are relegated to a subordinate position. In this case, silence takes on many forms.

The connection between learners' perceptions, conceptions, and school music education has not been studied thoroughly, in a wider context, illustrating the diversity and commonalities of the student voice in various settings. Fundamental questions are: How can learners' active voices be prioritized? What are the new opportunities and challenges facing the child learning music today, compared to previous generations? How can today teachers find who are their students, what they need and want? Do our students know about their musical abilities and potentials? What music styles and songs are meaningful to our students? Who determines what kind of music knowledge is beneficial? Does the music we choose to teach have a place in our students' living world? These questions are certainly worthy of future investigation.

Rather than a music education for "real people" and "real lives" (Bates, 2017, p. 16), formal music education tends to *"marginalize, exploit, repress, and alienate"* (p. 3) the stu-

dents. In most cases, all dimensions of the overloaded music curricula are determined and reformed without consulting the students that they are designed to serve (Després & Dubé, 2020). In other words, when music education represses students' voices, it is likely to make them feel that their own experiences have little value. The music teaching should respect students' expectations, creative potential, and freedom, should vitalize the authentic and fulfilling experiences and the thoughtful reflection (Schmidt, 2005). These acquired skills will serve them well beyond the music classroom (Green, 2008). Generally, curriculum choices *"have to be made locally, in each school, in each classroom, for and by each group of learners"* (Rolle, 2017, p. 94).

The inclusive music learning environment, in individual and group lessons, creates purposeful opportunities for students to re-engage with their music education, developing a deeper appreciation for music. Thus, the gap is bridged between in- and out-of-school learning experiences (Green, 2008; Després & Dubé, 2020; Clauhs & Cremata, 2020). Open discussion enables students to find their bearings in a confusing world of music in which judgments and assessments are called into question (Schmidt, 2005; Rolle, 2017; Orzolek, 2021). With respect to music preferences, listening and playing behaviours of most students, it seems that they are strongly correlated to the musical omnivorism movement (which do not distinguish between elite and non-elite music cultures), in our contemporary, post-modern world. For music educators is useful to be informed about the occurring trends in the current musical scene.

It is essential to note that the technologically-enriched learning in informal settings emphasizes the student's personal, musical experiences and interests. Technology is the second nature to students, in self-choice activities. Music technology provides materials that engender playfulness. Many students are enthusiastic amateurs. Digital, emerging musical resources and mobile technologies (with often expensive devices) enrich young children's learning environment. This conjecture creates a tremendous gap between the digital, music platforms students use (via YouTube audiovisual media, social media, virtual/online spaces, movies, mobile devices, music videos, karaoke, video games) and the ways in which school content is delivered. For instance, children are often unenthusiastic about school musical material, whereas they embrace, with open-mindedness, songs that are not created for them. The music technological, social arenas are based on friendship-driven activities. The technology-based music activities align to the students' genuine needs and life experiences. Students are more likely to be motivated.

The organized literature review from Després and Dubé (2020) in the field of learner voice research, into a wider framework of music education, captures a deep questioning of the modes in which our education systems operate. According to the authors' results, multi-perspective understanding of the learner voice in music is related, in order of importance, to: (1) pleasure or well-being; (2) music; (3) action; (4) learning environment; (5) people; (6) desire and (7) receptivity. The active role of students in decision-making increases their greater sense of agency, identity, and responsibility, their motivations and their ability to communicate with peers and educators. The collaborative and non-stressful environment is linked to the students' ownership over their music learning, their improved self-esteem and autonomy. In the opposite direction, this pedagogical approach can provoke resistance to everybody who find comfort in the strategies and programs that have prevailed for decades (Després & Dubé, 2020). It is

worth-mentioning that transformation does not come easy.

In the study of Economidou Stavrou' and Papageorgi (2021), the aim of self-report questionnaire of secondary schools' students in Cyprus (N = 749) was to examine students' views of their music lessons: what they value and how they would have liked lessons to be if they had the opportunity to change things. According to the results, students called for more focus on singing and to play a greater variety of instruments (i.e., drums, guitar and piano) of modern repertoire (Greek and foreign). They want to play the music they like and of their choice. They indicated the desire to do more of their favorite activities. The authors conclude that listening to students' voice and *"taking into consideration what they value as important and less important can open new pathways and new perspectives on music teaching and learning"* (p. 382).

Students are asked to tell their own stories (Hess, 2019; Pearce & Wood, 2019; Orzolek, 2021), without fear of criticism or censorship. Some of them tend to surprise us. In this regard, the student voice movement heralds the possibility of a shift from unilateral top-down direction to bottom-up participatory processes. In the bottom-up perspective, students are set as the departure point of the educational process (Saltari & Kokkidou, 2024), and teachers become aware of who their students are as individuals, artists, and learners. Teachers work with a diverse population of students, from different backgrounds, prior experiences, and cultures. Above all, we must not forget that there is no homogeneous or unified voice but numerous heterogeneous, not static voices of the students. Their particular voices are not fixed and stable, but always changing contingent on their context.

Listening to students' voices and their valuable perceptions is a philosophical position (Després & Dubé, 2020), *"the antipole of an impersonal and homogenized education, and it is a student-centred approach in real sense"* (Saltari & Kokkidou, 2024, p. 7) and a revolutionary action. As Bowman (2012) postulates, *"the ethically oriented domain"* of music education *"extends well beyond technical concerns, implicating questions like when-to, whether-to, to-whom-to, or to-what-extent-to"* (p. 33). Yet, music education often establishes a standardized, artificial, narrow, stagnant or limited music cosmos which leads to the problem of elitism. Many teachers undervalue or snub the learners' musical choices. The school music curriculum serves a certain minority of selected students, *"at the expense of the majority of other students whose musical needs, abilities, interests, and goals may be ignored or denied. From the other side, in a well-rounded, holistic character the students develop lifelong music learning and "independent musicianship"* (Regelski, 2009, p. 9). The music we decide to teach is not indisputably good *"with lasting benefits for students or society"* (Regelski, 2009, p. 11). Therefore, it seems imperative to review the role of the music teacher.

In terms of multiple dimensions in the dynamics of school change, the dialogue with the students is a starting point for the democratic, pedagogical, and social goals of music education in the 21st century (Spruce, 2015; Pearce & Wood, 2019; Després & Dubé, 2020). Differences among individuals should be seen as opportunities. From an educational point of view, the issue is not the diverse backgrounds and lives of learners (Kokkidou, 2017; Clauhs & Cremata, 2020) but the vital things that they have in common (Abrahams, 2005). Music student voice is both a process and an outcome. It also means considering the broader contextual or situational features, the reasons why music is

studied and how it makes sense of students' actual lived circumstances. The foremost, grave concern at hand is the separation of school and real life and the difference between children's learning alongside or despite their existing interests.

Increasing student opinion does not mean that teachers will 'get out of the way', abandoning *"music education pedagogical principles to teach only what the students ask or wish"* (Economidou Stavrou & Papageorgi, 2021, p. 368), and accepting a chaotic, disruptive environment. This option is not desirable. Hearing students' voice in a collaborative discourse allows teacher to investigate and improve her/his own practice. Learners' musical preferences, capacities, and choices are part of their selfhood, emerging horizons, identity, and cultural heritage. Learners can shape the curriculum at micro and macro level, with brilliant ideas full of breakthrough and surprisingness. Music curricula can be more finely tailored to the various needs of today's students.

These pedagogically desirable transitions take time and effort because music students and teachers are not habituated to their new substantial roles. Time is an essential factor which affects the ways ideas are shared, constructed, and evaluated. In this vein, I conclude that student voice is a fundamental, yet a missing piece in school music education. More broadly, if we proceeded on what we hear from students, regardless of age, we would think, feel, and act very differently. Flexibility is the key.

Music Teacher and Music Student Voice

Committed music teachers matter in school reality, playing a critical role in educational reform. Their work is complex and difficult. Many teachers struggle to alter and overturn the dominant, conventional messages of school, rethink their personal models and philosophies. They try to escape from the cycle of music teaching in the way they have been taught. They make an effort to understand the students' cultural backgrounds, previous knowledge of music, out-of-school experiences, musical needs, values, impressions, preferences, and tastes in favorite music they enjoy to listen to and perform. The transition from teacher-centered to student-centered practices allows teachers to redefine their roles in music lessons, exploring their moral responsibility, their cultural-musical heritage and recognizing the strengths in diversity.

Mono-cultural school communities are rare today. Music educators are undeniable catalyst for helping students in the exploration of difficult issues, such as racism, colonial and patriarchal systems, oppression, cultural imperialism, and disagreement with the dominant culture. This assumption can help out teachers to re-visualize music education as a change tool based on differentiated perspectives for music learning (Schmidt, 2005; Martignetti et al., 2013; Bates, 2017; Hess, 2019; Clauhs & Cremata 2020; Orzolek, 2021). This emphasis appears to mirror the arguments made by Giroux (2001). The UNCRC (1989) recognizes children as social actors and capable participants to debates that touch and shape their lives. In this light, we need to put students (not just music) at the center of the educational process in various settings (school, community, conservatory). Teachers should help students to determine how and why music matters to them, and to take charge of their music learning (Green, 2008; Elliott & Silverman, 2015; Spruce, 2015; Bates, 2017; Clauhs & Cremata, 2020; Economidou Stavrou & Papageorgi, 2021). Allsup (2016) states that we teach children, not music traditions. He disagrees with the binary Master/apprentice system ("Master" is invariably capitalized,

emphasizing the power relations between Master and apprentice) which is a closed, hierarchical form with negative attributes. He defines music-teacher quality *"as the ability and curiosity to move skilfully and knowingly within and across closed and open domains"* (p. 39). Inspired by Freire, Greene and Dewey, Allsup (2016) articulates: Master's oppressive authority and *"love of overwhelming control"* shows *"his desire to control and silence others"* (p. 11). Music teachers should hold in high esteem, confrontational classroom negotiations because this is a prerequisite for democracy.

Our students have much to teach us. We are not the only music educators in the classroom. This relationship is often reciprocated (Martignetti et al., 2013). Music teacher is not an isolated actor or a sage-on-the-stage. The mentor-teacher welcomes, guides, facilitates, co-learns, respects, and engages students in group dynamics. She/he attentively listens to the students' choices and honour the diverse musical and cultural worldviews that learners bring into the classroom. The ethical, helpful, and supportive music teachers-as-mentors are counsellors and collaborators into a musical-interpersonal network of dialogical and social relationships. They usually fade in-and-out of classroom leadership roles (Freire, 1970; 1998; Green, 2008; Elliott & Silverman, 2015; Allsup, 2016; Orzolek, 2021; Economidou Stavrou & Papageorgi, 2021). In the direct, student-centred practices, the music educator has the skills of a good listener, focusing on giving students questions, not answers. It is more essential to find the questions than the answers.

Teachers must also reject the division and distinction between high and popular music culture, being in sympathy with the principles of adaptive, more nuanced, flexible, and pedagogical aligned curriculum. They ought to think 'outside the box' and look for signs of positive energy. As indicated earlier, co-operation is a gateway for self-discovery and co-creation of meanings, which are crucial 21st-century skills. Dialogue engenders thinking. Solutions can be constructed in co-shared processes. Considering different perspectives and notions is an ability that must be nurtured. Students can discuss their ideas in small groups, teamwork, and then in whole meetings.

The teachers' responsibility to the present and future life of learners is about *"their wishes and interests rather than the musical past"* (Rolle, 2017, p. 94). But this can create stress for cumbersome teachers, who are likely to worry about what students will say about them and the school culture, with negative comments and judgments. The biggest fear it is due to the unwillingness and inertia of the narrow-minded and reluctant teachers to listen to students' voices. The relationships between teachers and students will be more strained. To some extent, teachers are concerned that they will be losing control and management of their instruction. Many of them may feel stressed and undervalued. Therefore, there are no unqualified answers about how students and teachers react to adversities.

Dealing with this kind of complexity, there are a number of issues that arise here. Any attempt at excluding students' voices develops a kind of blindness or a fear of anarchy. Pressing this point a bit further, the difficulty arises from the unconstrained gap between teachers' perspectives and the current experiences of students. While the development of students' interest in music is mentioned in the most European curricula I have studied (Swedish, Greek, Catalonian, Andalusian, Cypriot, Romanian, Bavarian,

Austrian, Bulgarian) this does not assume that teachers have availability to listen to the children they teach. Students have restricted influence. Students' keen points of view and reinterpretations seem to be immature, unexpected, irresponsible, uninformed, not-acceptable, incoherent, not-desired, or offensive. Students may fail to be active participants because they feel nervous or intimidated about voicing their views to teacher. Moreover, time pressures and the tyranny of a crowded music curriculum constraints make communication among students and teachers difficult.

However, teachers also bring their own entrenched mindsets, competencies, outlooks, and expectations to the classroom. They do not investigate and understand the roots of their beliefs, they do not face their personal prejudices, they are afraid to subject their positions to re-examination. Some of them neglect to recognize that they themselves must change in order to facilitate a collaborative relationship with their students. Freire (1970) argued that *"those who authentically commit themselves to the people must re-examine themselves constantly"* (p. 47).

Following this line of thought, it is very important for music teachers to challenge their taken-for-granted practices, to re-examine their own praxis, and to take a brave step with purpose το become aware of the official, conservative established, manipulative educational models and the dominant ideologies to which they are attached. They have to explore their music identities and the stereotypes which have been perpetuated in them in order to become more self-aware about the impediments that exist on teaching (Martignetti et al., 2013; Orzolek, 2021). Unfortunately, music educators *"have not recognized or rewarded the approaches involved in informal music learning"* (Green, 2008, p. 3). Critical pedagogy provides a framework for music educators to reflect upon their experiences and engage in dialogue about inequality, power structures, diversity, religion, race, gender, and sexual orientation. Building from critical pedagogy, Hess (2019) argued that music educators must nurture the 'dream of freedom' and the imagination of a different possible future.

One final, determinant issue is the difficulty of the education system to address the competing forces of a groundbreaking transformation. To some extent, uncertainty and conflict in thinking and doing are natural, beneficial elements in music education. They do not amount to alienation, threat, hostility or violence. They consist a launch pad for empowerment and diversity. Controversial topics provide creative impetus for learning research in the classroom. Adversarial tensions and contradictions are healthy. Understanding is enriched by the perspectives of others. Students must realize and evaluate their own criteria and the priorities of their peers. They should be encouraged to take responsibility for their own choices. In this sense, to negotiate means to courageously overcome opposing standpoints and disagreement in a suitable manner. Besides, failure and suspicion are part of innovations and enormous changes.

Conclusions and their Implications for Music Education

Keeping in mind the above considerations, we need to know our students well and to acknowledge them through a greater recognition of who they personally and musically are. The obvious precondition has to do with the ability to implement bottom-up constructs. Music students can take on the role of an instructor, through ongoing participation in classroom reflective dialogue and co-construction of knowledge. This conviction

is not an easy task, out of obstacles and gray areas. It is not a laissez-faire attitude. It requires additional contemplation and special care, barren of 'recipes', 'successful formulas or instruction manual. As discussed so far, music teachers need much more than prompts and generalities. Without specific support it is more likely that they will continue to use conventional methods. Against the flow, music educators should be aware of how students feel and ensure that students are heard accurately (Green, 2008; Elliott &Silverman, 2015; Allsup, 2016; Orzolek, 2021).

Several relevant questions arise from the above discussion: Where do we start for a regenerative music education? How can we provide adequate time and space (both physical and virtual) for students to share their voices in music education settings, from primary through secondary schools? How do we respond to unpredictable or negative situations? Are music teachers prepared to accept these practices and review their existing strategies? We could say that the students' voice approach often lacks clear frameworks. It is a wide-ranging zone that has not hitherto attracted a great deal of attention in formal music education. Much more work is needed on these areas.

The creation of meaningful and authentic connections between the music lesson and the daily life of the students has a starting point to the ways students live, act, interact, and reframe their experiences. Students should be continuously empowered with opportunities, time, and space which function as motivator for making valuable contributions to learning material (familiar songs, most-liked activities, favorite repertoire etc.). If music classroom settings do not reflect or ascertain the culture, interests and preferences of students, it is very likely that they will feel less positive about music learning. Student voice provides space for metacognition and the heightened transfer of music skills to other life situations. The notion of interest sparks music students' intrinsic motivation and commitment, underscoring the aspects of democracy (Greene, 1995). For this to happen, critical pedagogy can be highly helpful as a philosophy (Freire, 1970; Giroux, 2001; Abrahams, 2005; Allsup, 2016).

In studio, one-to-one music lessons, there are fruitful factors for sharing ideas and interpretations. In classroom settings, however, the ability for open-ended discussions is limited. It is not easy in a general school where music educators have to teach 300 or more students each week. The class contact time is minimal. Thus, music students need to work in small groups with chances to examine opinions, detect bias, and distinguish between alternatives.

The activities that students would encounter in schools may use as a basis the: peer-directed, project-based, and enquiry-based music learning, creative bodily movement, self-expression and experimentation, authentic musical problems, critical thinking questions, choice questions, hypothetical situations (brainstorm), student-generated repertoire on performing music, improvised songs, debates, multicultural practices, informal music learning, making music with technology, transdisciplinary paths, metacognitive skills, and local community music activities. Students' interests and inquisitiveness are a driving force. Student-centered learning environments need open, fertile, and practical questions, relative to the music life and beliefs of the students. Other crucial factors are imagination ("What if ...?", "What-If-Not?", "What happens when...?"), playful situations, sense of humor, smiles, fun, and enthusiasm. Such practices are relevant for

students of all ages and enable them to be effective contributors in their classrooms culture. Students' musical, meaningful experiences beyond school (friends, siblings' and parents' music literacy, local community, audiovisual media, movies, bands) may provide a starting point for activities at school. The needs of the students are paramount.

Music education is not a monolithic, utilitarian idea or practice. It can no longer be understood in conservative terms (Martignetti et al., 2013; Orzolek, 2021). As a counterpoint to hierarchical structures (Charteris & Smardon, 2019; Hess, 2019), the facilitator music educator should be co-learner and co-investigator with her/his students, without the notion of musical-aesthetic superiority. The traditional canon in music education have focused on *what*, *how* and *why* we teach music, without next steps. But today caring music educators, for the planning of their instructional activities, should begin and investigate *to whom*, *when* and, *where* studies music, taking into account the student idiosyncratic perspective. For an inclusive ethos, a curriculum must have the student voice at its heart which adjust classroom activities. Under this prism, school cultures must change, taking into consideration the contextual forces that can overcome the pre-existing structural standards and conventional pedagogies, in order to find safe, innovative ways for students to share concerns, sensitivities, and opinions in communicative forms. Silence is not an option anymore.

The focus of students' earlier and present experience, and needs is compelling. Music curricula ought to provide teachers with a theoretical basis and practical suggestions for the development of students' interest (Quaglia & Fox, 2018; Després & Dubé, 2020; Saltari & Kokkidou, 2024). It becomes apparent that this is a prime ingredient. A renewed, transformative, critical, and inherently democratic discourse should be developed for music education. We need more empirical and longitudinal studies that assess the music teacher ability to see her/his music students as unique individuals and best meet their needs. More importantly, we have to examine the raison d'être of how we really take into account music students' opinions, pursuits, and needs, within a broader range of different positions. These features are profoundly student-centred.

Strengths and shortcomings of this orientation do not make sure that each voice is heard, valued, and validated. In a bleak view of these differences, there are no conscious potential for the reinvigoration of the music curriculum or whether we ponder the considered possibilities in the long term. Therefore, there is a necessity for more professional research about the education of pre-service music teachers, the updating training for in-service teachers, supervisors, principals, and support staff, and the involvement and participation of parents and local community. It might be possible to promote open forums and consultative workshops in a whole-school community, through a dialogue-based approach (Charteris & Smardon, 2019; Economidou Stavrou & Papageorgi, 2021). Informal conversation is a real give and take. Students and teacher, getting and working together, may revisit conceptions and misconceptions. Every well-envisioned educational reform presupposes active partners in a sustained, co-operative work. The philosophy for a balanced, multilevel framework has to be on 'us' not on 'me.'

Many thanks to Dr Regina Saltari for her valuable advice and for proofreading this paper.

References

Abrahams, F. (2005). Transforming classroom music instruction with ideas from critical pedagogy. *Music Educators Journal*, *92*(1), 62-67.

Allsup, R.E. (2016). *Remixing the Classroom: Toward an open philosophy of music education*. Indiana University Press.

Bates, V.C. (2017). Critical social class theory for music education. *International Journal of Education & the Arts*, *18*(7), 1-24. Retrieved May 20, 2022 from http://www.ijea.org/v18n7/

Bowman, W. (2012). Music`s place in education. In G.E. McPherson, & G.F. Welch (Eds.), *The Oxford Handbook of Music Education,* Vol. 1 (pp. 21-39). Oxford University Press.

Chang, C.-F. & Hall, N.C. (2022). Differentiating teachers' social goals: Implications for teacher-student relationships and perceived classroom engagement. *AERA Open*, *8*(1), 1-16.

Charteris, J. & Smardon, D. (2019). Democratic contribution or information for reform? Prevailing and emerging Ddiscourses of student voice. *Australian Journal of Teacher Education*, *44*(6). Retrieved May 20, 2022 from https://doi.org/10.14221/ajte.2018v44n6.1

Clauhs, M. & Cremata, R. (2020). Student voice and choice in modern band curriculum development. *Journal of Popular Music Education*, *4*(1), 101-116.

Després, J.-P & Dubé, F. (2020). The music learner voice: A systematic literature review and framework. *Frontiers in Education*, *5*(119), 187-199.

Dewey, J. (1916). *Democracy and Education*. Macmillan.

Economidou Stavrou, N. & Papageorgi, I. (2021). 'Turn up the volume and listen to my voice': Students' perceptions of music in school. *Research Studies in Music Education*, *43*(3), 366-385.

Elliott, D.J. & Silverman, M. (2015). *Music Matters: A philosophy of music education*. Oxford University Press.

Flores, O.J. & Ahn, J. (2024). 'Kids have taught me. I listen to them': Principals legitimizing student voice in their leadership. *AERA Open*, *10*(1), 1-14.

Freire, P. (1970). *Pedagogy of the Ooppressed*. Continuum.

Freire, P. (1998). *Pedagogy of the Heart*. Continuum.

Giroux, H.A. (2001). *Theory and Resistance in Education: Towards a pedagogy for the opposition*. Bergin & Garvey.

Green, L. (2008). *Music, Informal Learning and the School: A new classroom pedagogy*. Ashgate.

Greene, M. (1995). *Releasing the Imagination: Essays on education, the arts, and social change*. Jossey-Bass.

Hess, J. (2019). *Music Education for Social Change: Constructing an activist music education*. Routledge.

Kokkidou, M. (2017). *From Kindergarten to Early Adulthood - Findings from a Longitudinal Study: What factors most influence student academic trajectory.* G.S.M.E.

Martignetti, F., Talbot, B., Clauhs, M., Hawkins, T. & Niknafs, N. (2013). 'You got to know us': A hopeful model for music education in schools. *Visions of Research in Music Education*, *23*. Retrieved April 9, 2016 from http://www.rider.edu/~vrme/

Mitra, D. (2018). Student voice in secondary schools: The possibility for deeper change. *Journal of Educational Administration*, *56*(5), 473-487.

Quaglia, R.J. & Fox, K.M. (2018). Student voice: A way of being. *Australian Educational Leader*, *40*(1), 14-18.

Orzolek, D.C. (2021). Equity in music education. *Music Educators Journal*, *107*(4), 42-44.

Pearce, T.C. & Wood, B.E. (2019). Education for transformation: An evaluative framework to guide student voice work in schools. *Critical Studies in Education*, *60*(1), 113-130.

Regelski, T.A. (2009). The ethics of music teaching as profession and praxis. *Visions of Research in Music Education*, *13*. Retrieved April 9, 2011 from http://www-usr.rider.edu/~vrme/

Rolle, C. (2017). What is right? What is wrong? Music education in a world of pluralism and diversity. *Philosophy of Music Education Review*, *25*(1), 87-99.

Saltari, R. & Kokkidou, M. (2024). Rethinking the music curriculum theories: Towards an updated comprehensive student-centred approach. *Research on Preschool and Primary Education*, *2*(1), 8-19.

Schmidt, P. (2005). Music education as transformative practice: Creating new frameworks for learning music through a Freirian perspective. *Visions of Research in Music Education*, *6*, 1-14. Retrieved December 12, 2015 from http://www-usr.rider.edu/~vrme/v6n1/visions/Schmidt/

Spruce, G. (2015). Music education, social justice, and the 'student voice'. In C. Benedict, P. Schmidt, G. Spruce, & Woodford, P. (Eds.), *The Oxford Handbook of Social Justice in Music Education* (pp. 287-301). Oxford University Press.

Tang, K.H.D. (2023). Student-centered approach in teaching and learning: What does it really mean? *Acta Pedagogia Asiana*, *2*(2), 72-83.

Toshalis, E. & Nakkula, M.J. (2013). Prioritizing motivation and engagement. In R.E. Wolfe, A. Steinberg, & N. Hoffman (Eds.), *Anytime, Anywhere: Student-centered learning for schools and teachers* (pp. 171-201). Harvard Education Press.

UNCRC (1989). *Convention on the Rights of the Child*. Retrieved June 17, 2023 from https://www.unicef.org.uk/what-we-do/un-convention-child-rights

Received 11.05.2025
Accepted 23.06.2025

THE DEVELOPMENT OF 1-ST GRADE LEARNERS' INNER HEARING AT MUSIC SCHOOL: CASE STUDY

Gaļina ZAVADSKA, Ilona BAGELE & Agrita PONTAGA
Daugavpils University, Latvia
e-mail: galina.zavadska@du.lv

Abstract

Inner musical hearing as the ability to hear and experience music inside oneself is considered to be the highest developmental level of musical abilities. The contemporary music pedagogy has comparatively few studies on the analysis of the opportunities and methods for the development of inner hearing at the junior school age.

Research aim: *to develop the levels and indicators as well as design diagnosing tasks for determining of inner hearing's developmental level for the 1-st grade learners during the sol-fa teaching process at music school.*

In the frames of a case study were developed levels and indicators as well as selected and approbated diagnosing tasks for determining its developmental level on the basis of various activities at sol-fa lessons within the frame of a case study.

Keywords: *levels and indicators of the development of inner hearing, diagnosing tasks*

Introduction

The effectiveness of musical activity depends on the development of musical hearing. The multiform branches of musical hearing involve a variety of subtle auditory senses which develop during a focused teaching process. During the process of music teaching, a more significant attention should be paid to the development of learners' inner hearing, selecting adequate educational content and methods (Wu, 2018). Inner hearing reflects learner's ability to represent the pitch and rhythmic structure of sounds in their mind.

Musical hearing reveals child's ability to perceive and create music images, which relate to memory and imagination (Joffe, 1991). Much of music can be learnt only by ear, and this is the most popular approach to music teaching in the whole world (Woody, 2012, 83).

In turn, inner hearing, being one kind of musical hearing, is the ability to imagine music without any aid of external sounding. Inner hearing as an ability to hear and experience music in one's mind is regarded as the highest developmental level of musical abilities. Inner hearing reflects learners' ability to reproduce the pitch and rhythmic structure of sounds in their mind. Internal/inner hearing helps the child learn the language of music, understand, remember and reproduce its musical expressiveness.

During the first stage of the sol-fa teaching process, it is important to devote much attention to the development of internal/inner hearing, since learners' perception of music, its creation and collective music making are impossible without it (Woody, 2012). Pedagogical practice shows that inner hearing has different forms and levels of develop-

ment, and any learner's musical hearing is different as well (Welsh, 2022). In contemporary music pedagogy, research on the analysis of the possibilities and methods for the development of inner hearing at a junior school age is quite insufficient. Therefore, during a music teaching process greater attention should be given to the development of learners' inner musical hearing by selecting adequite education content and teaching methods (Wu, 2018).

Research aim: to develop and approbate the levels and indicators as well as design diagnosing tasks of inner hearing for the 1-st grade learners during the sol-fa teaching process at music school.

Research Methods and Sample

Research methods used in this research are as follows:

- the analysis of methodological and theoretical literature, and the pedagogical experience on the problem under the research;
- modelling of criteria and indicators for the development of a student's inner hearing.

Twelve 1-st grade learners (5 boys and 7 girls) from Daugavpils Stanislavs Broks Music School took part in the diagnosing stage in the frames of case study. During the research, strict confidentiality concerning information was maintained.

Theoretical Background

One of the tasks at teaching sol-fa at music school is to give learners the opportunity to acquire all the skills necessary for creative music activities and gain practical experience of music making by using individual, group and collective ways and forms of music making (Frenhane et al., 2020). Musical hearing contributes to the development of child's muscality and improves general cognitive processes as well.

Junior grade learners show an essential musical growth in such fields as listening to music, memory, analysis, interpretation and improvisation (Ivane & Trīnīte, 2020). Nelsone and Paipere (1992), researchers in the field of Latvian music pedagogy, note that children's internal/inner musical hearing depends on:

- The quantity of musical impressions (the more frequently children have experienced music in their family, the wider their musical impressions are);
- Qualities of musical perception and musical memory (musical perception and musical memory are trained by learning songs by ear and singing different exercises);
- The developmental level of musical thinking (both the creative component and the component of reproductive musical thinking should be trained);
- Creation of such musical perceptions which have not been yet heard but are synthesized from perceptions kept in memory.

For the primary school learners, the aspects of the development of internal/inner musical hearing manifest themselves in the necessity

- To achieve an accurate unison performance, since in order to sing a sound precisely, you should first imagine it in auditory perceptions;
- To develop understanding about the basic kinds of a melodic line where the inner musical hearing is one of the developmental methods;

- To reproduce, imitate melody of a song by playing metallophone or xylophone, which not only promotes the inner musical hearing, but also contributes to the development of instrument playing;
- To practice solo singing which gives children the opportunity to hear themselves, evaluate their own singing, improve musical skills (Gordon, 2001; Stramkale, 2020).

Musical hearing is part of a human's general musicality. In Latvia, one of the leading music activities at teaching the subject "music" is singing.

Seashore (1967) considers that the basis of musical hearing is a simple ability of hearing which all the healthy people possess, namely, the ability to distinguish the pitch. Musical hearing is closely related to the development of cognitive abilities, since it includes processes of perception, memory, imagination, and thinking. Petrušins (Петрушин, 1997), Starčeusa (Старчеус, 2003) and Kirnarskaya (2009) speak about such types of musical hearing as sound pitch (absolute and relative), melodic, rhythmic, mode, tonal, intonational, harmonic, architectonic, timbral, dynamic, facture and polyphonic.

However, B. Teplovs (Теплов, 1947) wrote about only two types of musical hearing: melodic and harmonical, beacause all the rest are the varieties of hearing types. The diverse branches of musical hearing are related to the variety of very subtle senses of hearing which develop during a focused teaching process. Oskina and Parnes (Оськина & Парнес, 2005) devide musical hearing into an external and internal musical hearing. The authors point out that the division of musical hearing into external and internal/inner is relative since both types of these hearings mutually interact.

The inner hearing of primary school learners (7-8 year-old) is only at the initial stage of development, stable perceptions of hearing have not yet developed, coordination between voice and hearing is not sufficient as well, therefore, on the basis of the age peculiarities, processes of cognition and individual musical abilities of every child, it is essential for a pedagogue to select adequate methods for the development of hearing of this kind (Davidova, Zavadska, Rauduvaite & Chuang, 2020).

Each child's internal/inner musical hearing has a different quality. Oskina un Parnes (Оськина & Парнес, 2005) mentioned three main, contributing factors which make an impact on the quality of internal/inner musical hearing:

- Conditioned and unconditioned sound reflexes, and how the perceptions of internal musical hearing act; the principal indicators are: how accurately the relations between sound pitches are perceived, what the speed of the reactions of hearing is, its stability (long-term) and ability to put it into action;
- The quality of hearing is determined by perceptions: the broader and more comprehensive their content is, the higher their quality of hearing is; the ability to perceive and reproduce mutual harmony between music elements is very essential;
- The quality of inner hearing depends on the scope of musical memory, ability to memorize, to keep and accurately imitate musical material.

The quality of internal/inner musical hearing is detrmined by several interrelated psychophysical and cognitive factors, which add to each other. The understanding of these factors and taking them into account during the pedagogical process provide the teacher with the opportunity to plan and guide the educational process, by selecting methods and techniques for the development of the abilities to perceive the accuracy of pitch perceptions, musical memory and sound relations.
The peculiarities of the development of inner musical hearing do not exist per se: they are a body of several psychic cognitive processes, namely, music perception, musical memory and musical imagination. These psychic cognitive processes function in a mutual interaction and promote the development of inner musical hearing (see Figure 1).

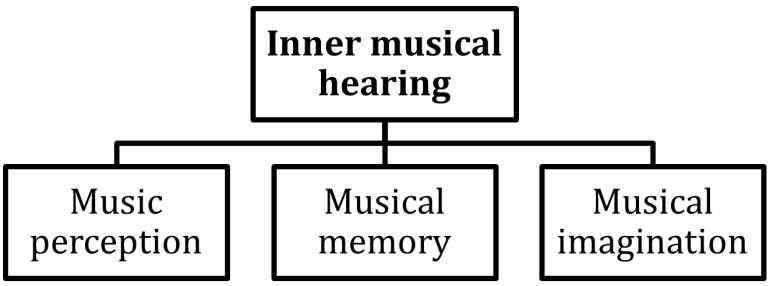

Figure 1. Psychic cognitive processes of the development of internal/inner hearing

Music perception is an initial stage during which the external impressions get summarized and structured, thus shaping a perception about sound qualities and music in general. *Musical memory* ensures keeping the perceived music elements (for instance, melody intonations, rhythm structures) in mind and later recalling them from memory. In turn, *musical imagination* allows to form, manipulate and reproduce musical perceptions independent of music sounding externally.

Characterization Of Different Forms Of Activity At Sol-Fa Lessons

In music schools, the organization of educational process at sol-fa lessons involves various kinds of musical activities: singing, listening to music, creation of music (improvisation, composition), musical rhythmic movements.

On the basis of findings described in scientific literature (Joffe, 1991; Карасёва, 1999; Масленкова, 2003), this study has summarized and selected methods and developed music exercises for the development of primary school learners' inner musical hearing. Practical methods applied for the development of musical hearing are as follows:

- learning songs by ear;
- learning songs by notes;
- musical rhythmic movements;
- musical games;
- vocal improvisations.

Promoting of inner hearing is important in any kind of musical activity, however, for primary school learners, *singing* is the leading musical activity at sol-fa lessons through which child's emotional, musical and cognitive development takes place (Davidova, Zavadska, Rauduvaite & Chuang, 2020). The use of voice automatically provides access to learner's inner musical hearing (Welsh, 2022).

Learning a song involves two methods – by ear and by notes. Learning a song by ear discloses, first of all, the ability of voice to react to musical stimuli. Child's reaction to music is viewed in the light of music perception, musical cognitive development, emotional development of vocal abilities and the development of components of musical cognitive movements (Radoš-Mirkovič, 1998; Jeremic, 2020). Learning a song by ear promotes child's skill of listening attentively (musical perception), visualizing (musical imagination) and reproducing melody by ear, thus contributing to the development of inner musical hearing.

Learning a song by notes is a complicated physiological process which has several advantages. Studies show that several years later after learning to read music, score reading provokes sounds in the inner hearing or in body movements (Arthurs & Petrini, 2023). At singing a song by notes, the external image, or what the learner sees (notes), promotes child's visual perception and aural impressions, which then develop into auditory images. Thus a trinity – "I see - hear – sing" - is created and is intended to promote inner hearing before singing a tune (Петрушин, 1997).

To use a musical game as a method for the development of inner musical hearing is reasonable, since primary school learners find it difficult to concentrate their attention on a single action for more than 10 minutes, they need switching over. Primary school children need movements, and musical game serves as a good method whose advantages are:

- Switching over from one activity to another (e.g., from writing to singing);
- Acquiring/developing musical abilities (internal/inner musical hearing) in an informal way.

A teacher leads the game in compliance with the set aims – teaching, educational and developmental aims.

The opportunities of vocal improvisation for the development of inner musical hearing are based on child's experience. During a vocal improvisation, musical perception, musical memory and musical imagination are promoted. It is based on the use of the acquired models and stereotypes (Nelsone & Paipere, 1992). When improvising, it is especially important for the child to use familiar intonations in a narrow diapason.

A successful development of internal/inner musical hearing involves such conditions as:

- Systematic and gradual work;
- Individual approach;
- Methodologically precise selection of exercises, gradually complicating them (Оськина & Парнес, 2005; Oliņa, Krišāne, Nelsone & Vilde, 2021).

The prerequisite for a successful development of musical hearing, including that of inner, is the process of diagnosing the actual developmental level.

Case Study Stages and Results

On the basis of scientists' findings (Burceva, Davidova, Kalniņa, Lanka & Mackēviča, 2010), teacher's diagnosing activity is interpreted as identifying the level of the development of learners' abilities. In 2025, research, involving 1-st grade music shool learners, was conducted with the aim to identify the developmental levels of their inner musical hearing.

According to Campbell (2008), diagnosing assessment may help a teacher to determine learners' educational level and degree. During the process of diagnosing, it was essential to identify the developmental level of every learner's inner hearing. The comparison of diagnosing assignments and summary of the results would provide the opportunity to use the obtained data for designing the strategy on a further development of inner hearing.

Twelve 1-st grade learners (five boys and seven girls) from Stanislavs Broks Daugavpils Music school took part in the initial stage of the case study. Within the frame of this study, it was possible to identify the initial developmental level of inner hearing of each child according to such criteria as:

- Perception of sound pitch;
- Perception of a melodic line;
- Musical imagination (auditory perceptions);
- Musical memory.

The data were collected in 2025 (the second half of a year in the 1-st grade, as time was needed to persuade children to participate and teach them some skills how to do the given tasks). Learners did the tasks at the sol-fa lessons in a school room. The 1-st grade learners have 2 sol-fa lessons a week, each lasting 40 minutes. Tasks were fulfilled during two weeks. During the diagnosing process, it was essential to identify the developmental level of inner hearing of every learner. The comparison of diagnosing tasks and summary of results provide the opportunity for designing strategy and methodology on the development of inner hearing. All tasks were distributed according to increasing difficulties: first, singing a song by ear, then learning a song by notes, and at last – musical game – *Abele*.

Three levels were developed for the assessment of each task: high, average, low. Points were allotted to each level, where 1 point means low level, 2 points – average level and 3 points – high level (see Table 1):

Table 1. ***Criteria and level indicators for diagnosing inner hearing***

Criterion	Level	Indicators
Perception of sound pitch	Low	Learner: can perceive sounds but does not hear differences between them;
	Average	Can distinguish pitch, sometimes precisely reproduces sounds of a simple melody;
	High	a) Perceives pitch convincingly; b) Reproduces sounds of different pitch;
Perception of a melodic line	Low	a) Understands that a melody changes; b) Cannot identify the direction precisely;
	Average	a) Can distinguish melody direction (rising, descending, even melody); b) Sometimes makes a mistake at distinguishing;
	High	a) Can perceive and explain a melody direction; b) Understands its structure and reproduces it precisely;

Musical imagination (aural perceptions)	Low	Responds to musical stimuli, but only with the aid of a teacher;
	Aver-age	a) Can imagine a separate sound or tune heard; b) Reproduces it himself by singing;
	High	Uses auditory perceptions to create new sounds and melodies, in improvisation;
Musical memory	Low	a) Remembers very short motifs, a repeated performance is necessary; b) Reproduces melodies with the aid of a teacher;
	Aver-age	Remembers and precisely reproduces a song or a melodic tune after listening;
	High	a) Remembers longer and more complicated melodies; b) Can compare them, create an improvisation.

On the basis of the selected methods, exercises for diagnosing the development of primary school learners' inner musical hearing have been designed.

Exercise *"Singing a Song by Ear"* (adapted by Nelsone & Paipare, 1992)

Aim: To promote the development of the perceptions of musical memory and inner hearing.
Result to be achieved: by successfully acting individually and in a team, a habit to improve and gain new experience will be developed.

Description:

1. On some music instrument (piano, recorder, metallophone), a teacher plays melody familiar to learners, for instance, song *"Kada katram dziesma"* by Siliņš (see Figure 2).
2. Learners sing the first verse of the song accompanied by the teacher.
3. For the second time, learners sing the melody in a soft voice, for the third time – inaudibly (internally).
4. Later, the teacher modifies the task in accordance with the learner's abilities, for instance, makes it more complicated by telling the learner to sing the song by dividing it into phrases. Learners sing the first phrase, then they omit the second phrase, singing it in a soft voice or in their mind. The same is done with the next phrase. It is essential not have any pause between the phrase sung and the phrase sounding internally, and to avoid any inaccuracy of intonation (Nelsone & Paipare, 1992).
5. To reinforce inner musical hearing and improve skills of cooperation, learners can be divided into two groups where one group sings the first phrase, but the other group sings the next one.

Methodological commentary: In this exercise, the most important things are the concentration of children's attention and listening to oneself, so that to successfully fit into the metro-rhythm and precisely reproduce sound pitch.

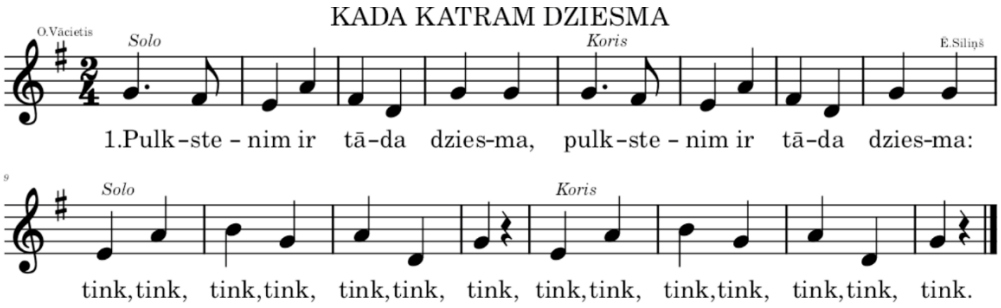

Figure 2. ***Song "Kāda katram dziesma"*** (VisaSkola.lv, 2024)

Exercise „Learning a Song by Ear" (developed by authors)

Aim: to promote the skill of reading music, develop the perception of pitch, auditory perceptions and musical memory.

Results to be achieved:

1. Learners hear the acquired degree motifs and recognize them in a drawing.
2. Learners hear the acquired degree motifs and recognize them in staff notation.
3. Learners reproduce a melodic line by signs of hands.

Latvian folksong "Osi, osi", a short, trichord mode composition (see Figure 3), is used to teach the 1-st grade learners a song by notes.

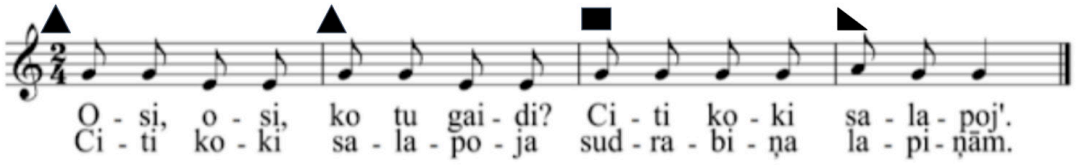

Figure 3. ***Latvian folksong "Osi, osi"*** (adapted from Skola2030, 2023)

Description:

1. The teacher introduces V – VIII- degree intonation via visual aids, thus promoting visual perception and auditory perceptions (see Figure 4). Through visual aids demonstrated by the teacher, children learn about the sol-mi motif on the staff, then they analyse the song.
2. The teacher and learners together identify the song structure, similar or different bars which are graphically marked (e.g. similar bars are marked by a triangle, the different ones – by other figures). The choice of these figures is not accidental: they are selected by the teacher on the basis of the progression of a melodic line. Learners chant rhythm of a song using rhythm syllables.
3. The teacher tunes learners in the tonality and determines time. At first, the teacher plays melody on the piano and children listen to it. Then children sol-fa using note names. The teacher corrects mistakes, if such are identified.
4. Lastly, learners sing a song using words, in correspondence with the nature of a song, in time indicated by the teacher using signs of hands.

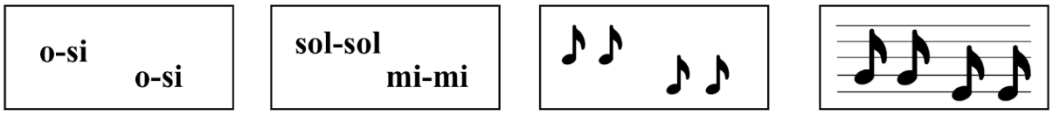

Figure 4. ***Teaching aid Latvian folksong "Osi, osi"***
(created by Paukšte, 1993)

Exercise "Musical game - Ābele" (Boler, 2024)

Aim: to acquire the intonation of a trichord (la, sol, mi).

Result to be achieved: to develop a habit of forming respectful relations when playing musical games, by controlling and managing one's behavior and emotions: to follow the rules of successful cooperation to achieve results.

Description:

1. Two learners join hands and raise them up over their heads, thus forming an apple-tree with many branches. The rest of them make a line and go under this tree.
2. All children sing a song where three sounds – la, sol, mi - dominate (a song, familiar to children and corresponding to a trichord scale, can also be used).
3. When song is finished, the tree suddenly lowers its branches (hands) and catches one of the children going under this tree at that time.
4. The child who was caught joins the tree, thus forming a new pair with another child or teacher. The game continues until several trees are formed.
5. After the game, vocal improvisation is offered, which reinforces auditory perceptions about just acquired degrees. The teacher asks methodological questions, including trichord intonations, for example, *"What would you do with apples which have dropped from the tree?"* Children reply by singing the same sounds, for instance, *"I would take them to my grandmother", "I would give them to my mother*" and the like.

Within the frame of this case study, the 1-st grade learners were observed with the aim to identify the developmental level of inner musical hearing and summarize results of observation, which are shown in Table 2, Figure 5.

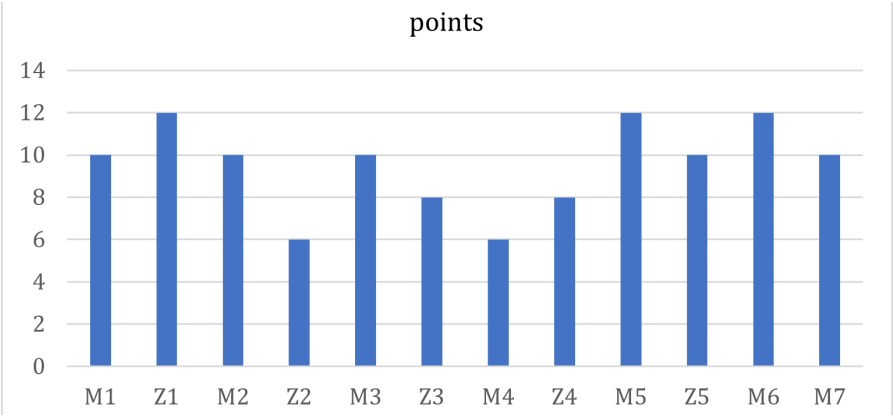

Figure 5. ***Levels of the acquisition of inner musical hearing***

Table 2. ***1-st grade learners' diagnosing results by each criterion***

Nr.	Learner	Perception of sound pitch	Perception of musical line	Musical imagination	Musical memory	Total
1	M1	2	2	2	2	8
2	Z1	3	3	2	2	10
3	M2	2	2	2	2	8
4	Z2	1	1	1	1	4
5	M3	2	2	2	2	8
6	Z3	2	1	1	2	6
7	M4	1	1	1	1	4
8	Z4	2	1	1	2	6
9	M5	3	3	2	2	10
10	Z5	2	2	2	2	8
11	M6	3	3	2	2	10
12	M7	2	2	2	2	8
	Total	**25**	**23**	**20**	**22**	

The analysis of data obtained in this diagnosing study allows to ascertain that:

- Average level makes up the greatest proportion, these are 8 children from 12, while the level of the rest of four learners has been assessed as low. It is essential to note that not a single learner's developmental level of musical hearing received the highest assessment. This indicates to the fact that this skill is only at the initial stage of development but has a potential for development. These diagnosing data correspond to the quality of children's inner musical hearing, which is determined by both psychophysiological and cognitive factors as well as by psychic cognitive processes related to music psychology field (music perception, musical imagination musical memory) and are based on former experience.
- At the initial stage of the diagnosing procedure, criterion "Perception of sound pitch" received the greatest number of points (see table 2), the level of seven learners was marked as average, of three learners - as high, of two learners – as low.
- Criterion "Perception of musical line" showed that the same three learners (Z1, M5, M6) can perceive and reproduce the progression of music line, and their perception of sound pitch was assessed as high. 5 children could identify the progression of music line, but did not feel very sure of it, thus, for instance, M3 had identified the progression merely by guessing, and 4 children (Z2, Z3, M4, Z4) had experienced great difficulties because they could perceive the changes in the melody but could not identify the particular direction, and their level was assess as low.
- In criterion "Musical memory", too, Z2 and M4 were assessed as having a low level, because the scope of their musical memory was established as minimal, since they were able to remember very short motifs after they were repeated several times. The level of musical memory of the rest of 10 children was assessed as average since they could memorize simple melodies, about one sentence long, and repeated several times.
- Criterion "Musical imagination" has received the smallest number of points in total. However, this does not imply that musical imagination is poorly devel-

oped, because for eight children it is assessed as the ability to imagine a separate sound or a short motif heard before. Four children could react to music stimuli, but with the teacher's help. Creation of the imagined sound needed the use of "writing in the air" by the teacher, therefore the level of their musical imagination was marked as low. The data on musical imagination testify to the fact that musical imagination happens at the level of the perceptions of musical hearing and inner musical hearing, which, on the whole, was assessed as unstable for this group of children. The level of musical imagination strongly depends on children's former musical impressions, consequently on their musical experience, which is not yet sufficient in this grade. The reason is the specific character of children's age group, their musical abilities and also the fact that this is only the first study year for them at music school. It should also be mentioned that in general the imagination of seven-eight-year-old children is quite bright and well developed, it is based on former experience, which in turn testifies to the fact that the most essential difference between imagination and musical imagination lies in the lack of experience.

Conclusions

1. Inner musical hearing as the ability to hear and experience music inside oneself is considered to be the highest developmental degree of musical abilities. Internal/inner hearing discloses learner's ability to reproduce the pitch and rhythmic structure in their mind. Inner hearing helps to acquire music language, to understand, remember and reproduce expressiveness of music. Personality's inner musical hearing depends on a) the quantity of musical impressions, b) properties of musical perception and c) developmental level of musical thinking.
2. Diagnosing of music school 1-st grade learners' musical abilities is related to the identification and research on the level of child's inner hearing. The research resulted in a) developing levels and indicators for diagnosing children's internal/inner hearing, b) designing diagnostic tasks on the basis of various kinds of musical activities: singing a song by ear and by notes, musical rhythmic movements, musical game, vocal improvisation.
3. Within the frame of case study, approbation of diagnosing tasks was carried out, and the obtained data were used for designing strategy and methodology for the development of inner hearing.

References

Arthurs, Y. & Petrini, K. (2023). Musicians' views on the role of reading music in learning, performance, and understanding. *Musicae Scientiae*, *28*(1), 3-17. https://doi.org/10.1177/10298649221149110

Boler, V. (2024). *Sound before Sight in Elementary General Music.* https://www.victoriaboler.com/blog/sound-before-sight-in-elementary-general-music

Burceva, R., Davidova, J., Kalniņa, D., Lanka, Ē. & Mackēviča, L. (2010). *Novitātes pedagoģijā profesionālās izglītības skolotājiem* [Novelties in Pedagogy for Vocational Eduu cation Teachers]. Rīga: Latvijas Universitāte (in Latvian). http://profizgl.lu.lv/mod/book/view.php?id=12113

Campbell, P. (2008). *Musician and Teacher: An orientation to music education.* W.W. Norton & Company, Inc.

Davidova, J., Zavadska, G., Chuang, M.-J. & Rauduvaite, A. (2020). *The Formation and De-*

velopment of the Coordination between 6–8-Year-old Children's Vocal Apparatus and Musical Hearing in the Process of learning Singing. Kaunas: Vytautas Magnus University Education Academy.

Frego, D. (n.d.). *The Approach of Emile Jaques-Dalcroze*. https://www.allianceamm.org/resources/dalcroze/

Fenhane, A., Fjodorova, A., Godiņa, I., Nelsone, I., Vilde, I. (2020). *Mūzika 1.-9. klasei: Mācību priekšmeta programmas paraugs* [Music for Grades 1-9: Sample Curriculum for the Subject]. Rīga: Valsts izglītības satura centra (VISC) īstenotā projekta "Koma petenču pieeja mācību saturā" datubāze "mape.skola2030.lv" (in Latvian). https://mape.skola2030.lv/resources/312

Gordon, E. (2001). *Preparatory Audiation, Audiation, and Music Learning Theory: A handbook of a comprehensive music learning sequence.* GIA Publications.

Ivane, M., Trīnīte, B. (2020). Dzirdes un balss koordinācijas attīstīšana dziedāšanā: latviešu valodā izdotajā metodiskajā literatūrā [Development of coordintion between hearing and voice in singing: Review of methodological literature in the Latvian language]. In V. Ļubkina, & L. Daniēla (Eds.), *Proceedings of the International Scientific Conference "Society. Integration. Education",* vol. 3, pp. 223-233. Rēzeknes Tehnoloģiju akadēmija. https://doi.org/10.17770/sie2020vol3.5080

Jeremic, B.S. (2020). The methodical model of teaching songs by ear and its effects on the development of students' vocal abilities. *Croatian Journal of Education - Hrvatski časopis za odgoj i obrazovanje, 22*. https://doi.org/10.15516/cje.v22i0.3838

Joffe, J. (1991). *Muzikālās dzirdes attīstības ceļi* [Paths of Musical Hearing Development]. Rīga: Zvaigzne (in Latvian).

Kirnarskaya, D. (2009). *The Natural Musician: On abilities, giftedness and talent.* Oxford University Press.

Mirković Radoš, K. (1998). *Psihologija muzičkih sposobnosti* [Psychology of Musical Abiłities]. Beograd (in Croatian).

Nelsone, I. & Paipare, M. (1992). *Mūzikas mācīšanas metodika* [Music Teaching Methodology]. Rīga: Zvaigzne (in Latvian).

Oliņa, Z., Krišāne, I., Nelsone, I. & Vilde, I. (2023). *Metodiskie ieteikumi skolotājiem mācību satura īstenošanai mūzikā 1.-9. klasei* [Methodological Recommendations for Teachers for Implementing Music Curriculum for Grades 1-9]. Rīga: VISC (in Latvian). https://mape.gov.lv/catalog/materials/77D8182D-BD99-4BA4-879A-E3930D95B7F3/view

Paukšte, J. (1993). *Mūzikas mācīšanas metodika: palīglīdzeklis mūzikas skolotājiem* [Muu sic Teaching Methodology: A guide for music teacher]. Rīga: Izglītības attīstības institūts (in Latvian).

Seashore, C.E. (1967). *Psychology of Music.* New York: Dover Publications.

Skola2030 (2023). Skola2030

Stramkale, L. (2020). *Mūzika sākumizglītībā* [Music in Primary Education]. Rīga: LU Akadēmiskais apgāds (in Latvian).

VisaSkola.lv (2024). Visaskola - VisaSkola.lv

Welsh, B. (2022). *The Importance of Inner Hearing.* https://www.kodaly.org.uk/news/the-importance-of-inner-hearing-by-becky-welsh

Woody, R. (2012). Playing by ear foundation or frill. *Music Educators Journal, 99*(2), 82-88. doi/10.1177/0027432112459199

Wu, Y. (2018). On the cultivation of inner auditory sense of music. *Music Creation*, *328*(12), 169-170.

Карасёва, М.В. (1999). *Сольфеджио - психотехника развития музыкального слуха* [Solfeggio - Psychotechnics of Musical Ear Development]. Москва: Московская консерватория (in Russian).

Масленкова, Л.М. (2003)*. Интенсивный курс сольфеджио* [Intensive Solfeggio Courŧ se]. Санкт-Петербург: Издательство: Союз художников (in Russian).

Оськина, С. & Парнес, Д. (2005). *Музыкальный слух: Теория и методика развития и совершенствования* [Musical Ear: Theory and methods of development and imM provement]. Москва: АСТ (in Russian).

Петрушин, В. (1997). *Музыкальная психология* [Music Psychology]. Москва: Гуманитарный издательский центр ВЛАДОС (in Russian).

Старчеус, М. (2003). Слух музыканта [A Musician's Ear]. Москва: Музыка (in Russian).

Теплов, Б. (1947). *Психология музыки и музыкальных способностей* [Psychology of Music and Musical Abilities]. Москва, Ленинград: Издательство педагогических наук (in Russian).

Received 06.06.2025
Accepted 24.06.2025