

ISSN 1691-2721
eISSN 2501-0158

Daugavpils University

**PROBLEMS
IN MUSIC
PEDAGOGY**

Volume 21(2)•2022

PROBLEMS IN MUSIC PEDAGOGY

VOLUME 21(2), 2022

CONTENTS

AUDITORY ANALYSIS AS A METHOD OF DIAGNOSING TIMBRAL HEARING OF FUTURE PROFESSIONAL MUSICIANS Galina ZAVADSKA & Jelena DAVIDOVA	5
PSYCHOLOGY OF MASTERING STRUCTURAL COMBINATORICS IN THE ART OF MUSICAL IMPROVISATION Jurijs SPIGINS	17
STUDENTS' SELF-EVALUATION OF MASTERING PIANO PLAYING DURING A DISTANCE-LEARNING PROCESS IN THE CONTEXT OF THE AXIOLOGICAL APPROACH Larisa MAĻKOVA	25
LITERATURE REVIEW ABOUT THE LEARNING ENGAGEMENT IN PRESCHOOL AND PRIMARY SCHOOL MUSIC EDUCATION Heddi REINSALU, Inge TIMOŠTŠUK & Inkeri RUOKONEN	35
ELEMENTARY INSTRUCTION CLASSROOM TEACHER STUDENTS' EXPERIENCES OF ART AND SKILL SUBJECTS AT SCHOOL AND IN TEACHER EDUCATION Minna MÄKINEN & Antti JUVONEN	71

AUDITORY ANALYSIS AS A METHOD OF DIAGNOSING TIMBRAL HEARING OF FUTURE PROFESSIONAL MUSICIANS

Galina ZAVADSKA & Jelena DAVIDOVA

*Daugavpils University, Latvia
email: g.zavadska@inbox.lv*

Abstract

The potential of the diversity of specific timbre inclusions in the music of the 20th and 21st centuries is used quite differently: this factor determines a special place of work forms for the development of timbral hearing at sol-fa lessons, namely, that of the auditory analysis. In this research, the authors have developed diagnostic music assignments for identifying the level of future professional musicians' timbral hearing on the basis of the auditory analysis.

During case study authors elaborated and piloted levels, indicators of development and diagnostic assignments for identifying the level of timbral hearing on the basis of different types of auditory analysis during the sol-fa lessons in a secondary music school.

Keywords: *development of timbral hearing, auditory analysis, sol-fa study process, case study*

Introduction

Timbre is a special component of a music sound. In music of the 20th–21st century, timbre comes to the forefront as being one of the most important means of musical expressiveness (Литвинова, 2013).

Traditionally, the problem of developing a good ear for music is considered to be one of the principal issues in music pedagogy. Effectiveness of a professional activity is related, first of all, to the process of the development of musical hearing. Contemporary researchers got actively interested in issues relating to the phenomenon of sound color – timbre, since in music of the 20th–21st century the role of timbre and other qualities of sound underwent changes (Zavadska, 2021a). This explains the close attention to the development of timbral musical hearing of musicians –professionals.

Though the research on the issues of diagnosing musical abilities is quite extensive (Тарасова, 1988; Swanwick, 1999; Adams, 2001; Campbell, 2008; Wallentin, Nielsen, Friis-Olivarius, Vuust & Vuust, 2010; Law & Zentner, 2012; McPherson &

Zimmermann, 2011; Ullen, Mosing, Holm, Eriksson & Medison, 2014; Asztalos & Csapo, 2017; Zavadska, 2021b), theoretical and methodological foundations of diagnosing and developing timbral hearing are still in the phase formation and are only recently started to be developed in pedagogical praxis.

The topicality of the issue of developing timbral hearing arises also from the fact that this problem has not been sufficiently addressed and developed on theoretical and practical levels as yet. Contemporary researchers (e. g. Siedenburg, Saitis, McAdams, Popper & Fay, 2019) maintain that timbre is a foundational aspect of hearing, and raise a lot of important questions in psychology, cognitive sciences, musical acoustics, speech, medical technique. The authors also indicate three research trends in issues of perceptions of timbre:

- Basic perceptive processes which organize processing of timbre;
- Timbre as a part of specific scenarios, including the perception of a human voice;
- The role of timbre and its impact on the quality of sound and sound design.

The development of timbre has not received yet sufficient attention in the system of music education of Latvia. However, scientists' findings (Burceva, Davidova, Kalnina, Lanka Mackevica, 2010) show that a teacher's diagnostic activity is an important part in the process of identifying the developmental level of students' abilities. According to P. Campbell (2008), diagnosing assessment may help to determine students' educational level and degree.

There is quite a solid basis of studies related to the diagnosis of musical abilities (Stumpf, 1883; Тарасова, 1988; Swanwick, 1999; Adams, 2001; Campbell, 2008; Asztalos & Csapo, 2017) as well as tests for determining them (Bennett, 1976; Davidson et al., 1988; Wallentin, Nielsen, Friis-Olivarius, Vuust & Vuust, 2010; Ullen, Mosing, Holm, Eriksson & Medison, 2014; Tkaczyk, Mills & Hui, 2021). Also, levels, indicators and diagnostic assignments for a timbral music dictation have been worked out (Zavadska, 2021a) and computer acoustic programs for developing musical hearing (Quesnel, 2009) have been developed. The timbral component of musical hearing of future professional musicians is not given a full attention to, in a way it seems to be neglected, and its development remains passive as regards to melodic one. In practice of teaching sol-fa at a secondary professional level (music school), the line of complicating pitch, mode, and harmony difficulties is sufficiently well elaborated and methodologically well-constructed. We have to note that the amount of the taught material has been reduced in respect to timbre.

Research aim: to develop and pilot levels, indicators and diagnostic assignments for identifying the level of timbral hearing of future professional musicians on the basis of auditory analysis.

Methods and Sample

Methods of research applied in this research are as follows:

- The analysis of methodological and theoretical literature on the problem under study;
- Modeling of levels and indicators for the development of musician's timbral hearing;
- Piloting of levels, indicators and diagnostic assignments for identifying the developmental level of timbral hearing of future professional musicians in the frames of case study.

The participants of pilot research in the frames of case study were 18 third-year students (3 groups) from Daugavpils Stanislavs Broks Secondary Music School. And from them, one was an accordionist, one – a drummer, two – pianists, two – choir conductors, three – brass band players (two – saxophonists, one – flautist), four – string instrument players (two – viola players and two – violinists), two – theoreticians and three – vocalists.

The sample for diagnostics is not highly representative, but it comprises participants from all music school specialisations. Students perceive timbre by ear specifically: it depends on their specialisations. For instance, pianists have a well-developed textural, register hearing; string and brass instrumentalists have a more developed melodic hearing; while choir conductors – harmonious hearing, but for theoreticians – the instrumental timbre takes the first position in the hierarchy of their expression means (Zavadska, 2021b). This is why at developing the timbral hearing, both strong and less developed sides of students' timbral perceiving have to be taken into account. The sounding of timbre of one's own instrument makes the perception easier for students of all specialisations.

Diagnostics of Timbral Hearing on the Basis of Auditory Analysis

Timbre is an essential means for achieving expressiveness in performance. Together with nuances, articulation, dynamics and tempo, timbre allows a performer to implement different variants of performing the composition. The development of the ability of hearing to perceive the expressive meaning of a timbral sounding is a vital condition for a musician to achieve professionalism in musical-performing activity. Perceiving different timbres evokes multiform associations.

Due to the changes of the role of timbre and other sound qualities in music of the 20th–21st century, researches' attention was focused more frequently on issues pertaining to the phenomenon of sound color – timbre (Zavadska, 2021a). Sounds produced at the same pitch and loudness but performed on different instruments, by different voices or on one instrument but by different techniques of performing are distinguished one from another by their timbres (McLachlan, Marco & Wilson, 2013). Other authors define timbre as the time-varying pattern of spectral components by which sound may be recognized (Handel, 1995; Handel & Erickson, 2004).

Timbre is a specific component of a music sound, and this factor determines the special place of work forms for the development of timbral hearing, namely – auditory analysis, at the lessons of sol-fa. If timbre and its interaction with other expressive means become the object of analysis, such type of auditory analysis is called timbral by T. Litvinova (Литвинова, 2013). R. Quesnei interprets timbre as a parameter of sound quality which to a great extent depends on the spectral balance (Quesnei, 2009).

In turn, B. Teplov (1947) distinguishes three basic groups of features which are especially frequently used to characterize timbre:

- a) Light characteristics: light, dark, shining, tarnished etc.
- b) Tactile characteristics: soft, rough, sharp, dry etc.
- c) Spatial-volumetric characteristics: full, empty, wide, massive etc.

The basic forms of work on the development of hearing (dictation and analysis by ear) are implemented under mono-timbral conditions – the piano (Zavadska, 2021b).

T. Litvinova (2013) mentions the diversity of timbral hearing and defines its different sides:

- timbral-articulative;
- timbral-register;
- timbral-harmonious;
- timbral-textural;
- timbral-dynamic;
- timbral-rhythmic.

This is why it is important to develop all components of timbral hearing as a complex. If the analysis by ear is chosen as a work form at sol-fa lessons, the attention should be paid to the analysis of different techniques used for a timbral-color exposition of the melody rather than to sound-pitch means of musical expressiveness.

The problem of diagnosing musical abilities is one of the most acute problems in music pedagogy. K. Stumpf (1883) – one of the founders of music psychology – was the first who seriously focused on issues of the individual differences of musical abilities and tried to work out experimental tests for diagnosing them. Since that time, the whole history of psychology has been actually related to testing musical abilities, which became a leading direction in the research on these abilities. The second direction – research on isolated cases of a striking musical giftedness – also pertains to it. However, diagnosing of musical abilities, like any other kind of diagnosing, may become a basis for exploring the possibilities of further development.

In the area of musical tests, D. Hargreaves (2012) isolated three main forms of tests on achievement, attitude and ability. The last one is designed to assess musical aptitude regardless of previous musical learning or experience.

Contemporary researchers (e. g. Tkaszyk, Mills & S. Hui, 2021) are engaged in developing specific tests on art, education and communication. Together, they demonstrate that testing as such has become an enduring and wide-ranging cultural

technique in the modern period, one that is situated between histories of scientific experimentation and many fields of application.

This research is concerned with designing diagnostic music assignments for identifying the level of future professional musicians' timbral hearing on the basis of auditory analysis, and explores the possibilities of employing these tests in a pedagogical practice during the sol-fa lessons in a secondary music school.

The Procedure of Identifying the Developmental Level of Student's Timbral Hearing on the Basis of Auditory Analysis

The research data were collected from 22nd February till 27th April 2021, and students did the assignments during the sol-fa lessons in a secondary music school. The second-year students have two sol-fa lessons a week, each 40 minutes long. Assignments were done during two weeks. Doing assignments took about 10 minutes from the total time of a sol-fa lesson, and this appeared enough for students to fulfil diagnostic assignments.

To maintain the quality of music fragments offered for listening, audio-recordings were made as separate files which were played several times depending on the complexity of the assignment.

Auditory timbral analysis is oriented towards perceiving timbre in its interrelation with rhythm, articulation, register, dynamics and texture. Objects of auditory attention may be timbres of instruments, their simultaneous or successive sounding, and also peculiarities of the articulation used, as well as the position of register. For the timbral analysis by ear, music fragments of different styles were used: baroque (the 18th century), classical (the 18th century), romantic (the 19th century), and contemporary (the 20–21st centuries).

During the process of diagnosing, it was essential to identify the developmental level of every student's timbral hearing. Comparison and generalization of the outcomes of diagnostic studies will make it possible to design the strategy for developing professional musicians' timbral hearing in future.

Diagnostic assignments were based on the comparative-timbral analysis of different type:

- To identify the timbre of the instrument during the sounding of different music material;
- To identify the timbre of instrument(s) during the sounding of identical music material (timbral modification);
- To compare the piano variant with the original variant of performing one and the same melody.

Assignments were distributed according to the growing complexity:

- a) First, there sounded various music materials performed by some solo instrument;
- b) Then, the melody was preserved but the timbre of the instrument changed, and a timbral modification took place;
- c) After that, the comparison of the piano variant with the original performance of the melody was made.

In all cases, students were given partly completed diagnostic assignments, and some of them had “prompts-supports”.

A. Sounding of a Solo Instrument with the Orchestra

Listening to melodies of different character performed on different instruments helps to identify the timbral peculiarities of every instrument and enables having a broad conception about its expressive possibilities. During the timbral auditory analysis, the conception about timbre in a wider sense of the word as about the sounding on the whole is implemented. It strongly resembles the integrated analysis during which the interaction of the timbre with other means of expression and their influence on the general character of sounding are revealed. During this process, a definite complex of means of expression for creating various imagery spheres in music might be identified: meditative, joyful, fantastical etc. In comparison with the complex of expressive means, it is vital to give the attention to striking unexpected individual approaches to embodying images of different type. The differentiation by ear of a definite timbre within a musical fabric is the field of the timbral auditory analytical assignment of this type. At distinguishing instruments, the main thing is to identify the instrument.

In music fragments given below (see Table 1), students were offered to identify and write into the table the solo instrument and the group to which the solo instrument belongs.

Table 1. Diagnosing assignment on identifying the sounding of the solo instrument

Composer and title of the work (partly or completely)	Solo instrument	Instrument group
1. Pyotr Tchaikovsky, Symphony No. 5, 2 movement		
2. Antonín Dvořák, Symphony No. 9, 2 movement		
3. Jānis Ivanovs, Čello koncerts 2. daļa		
4. J. S. Bach, Violin Concerto in D minor, 1 movement		
5. W.A. Mozart, Flute Concerto No. 2, 1 movement		
6. Jorge Salgueiro, Concerto		
7. Edward Elgar, <i>Sospiri</i>		
8. Ennio Morricone, <i>The Mission</i>		
9. Nei Rozauro, Concerto		

B. Timbral Modification

During the process of timbral modification, the auditory analysis presupposes listening to the theme played several times as well as identifying timbral changes. This type of analysis ensures full attention to the timbral side and preserves sound pitch as an invariant when the coloristic aspect changes. For a diagnostic analysis on timbral modification, fragments from two compositions were chosen: “Bolero” by Maurice Ravel and Symphony No. 7, 1st movement, episode of theme by Dimitry Shostakovich.

Besides, the correct variant of some instruments was already written in the assignment as “a prompt” to indicate to the students the right direction the assignment has to be done (see Table 2).

Table 2. Diagnostic assignment on timbral modification

Composer and title of the work	Music fragment number	Solo instrument/instruments
Maurice Ravel, <i>Bolero</i>	1 Music fragment	
	2 Music fragment	
	3 Music fragment	
Dmitry Shostakovich, <i>Symphony No 7</i> , 1 movement (episode theme)	1 Music fragment	?/violas
	2 Music fragment	
	3 Music fragment	flutes/?
	4 Music fragment	oboe/?

C. Comparative timbral analysis

For a comparative timbral auditory analysis and diagnostic assignments, two fragments from two compositions were selected:

- 1) The theme of promenade from the suite by M. Musorgsky in its original piano interpretation and in the variant re-interpreted by M. Ravel;
- 2) “Melancholic Waltz” by E. Dārziņš in a piano interpretation and the original orchestral variant of the composer.

During the process of timbral auditory analysis, after students had listened to the piano variant, they were asked to write down the melody first and then, without diverting the attention for writing down a sound pitch, focus on the sounding of orchestral timbres (see Table 3). A peculiar sounding of the *Promenade* theme by M. Musorgsky cannot be heard when it is performed on the piano, though the timbre of just this instrument is the “visiting card” of the timbre of this theme.

Table 3. Diagnostic assignment on timbral analysis

Level/ Number of points	Indicators
Low /1 point	Less than 50% of a auditory timbre analysis are written correctly
Average/ 2 points	a) 60% – 80% of a auditory timbre analysis are written correctly; b) Some mistakes in lengths and writing notes are permissible
High /3 points	a) 80% – 100% of a auditory timbre analysis are written almost without mistakes; b) Insignificant inaccuracies are permissible in writing notes or rhythm

During the process of a diagnostic research, on the basis of the developed levels and indicators, the results of future professional musicians' timbral hearing were analyzed and assessed on the basis of auditory analysis of different type.

Study Results

A. The results of the diagnostic research

After completing the first assignment – *Sounding of a solo instrument with the orchestra* – the results were as follows (the highest number of possible points – 54):

- Seven students reached the highest level (among them two theoreticians, two pianists, two string instrumentalists and one choir conductor);
- Seven students achieved the average level;
- Four students' works were assessed as written on a low level.

The analysis of timbral modification produced such results (the highest number of possible points 21):

- Five students reached the highest level (among them one pianist, one wind instrumentalist, one choir conductor, one string instrumentalist and one theoretician);
- Six students achieved the average level;
- Seven students received the lowest number of points.

After the completion of the third assignment the results were as follows (the highest number of possible points –12):

- The majority of students – 12 people – did the assignment correctly (among them two theoreticians, two pianists, two string instrumentalists, two wind instrumentalists, two choir conductors, one drummer and one accordionist);
- Four students reached the average level;
- Two students received the lowest number of points.

General results of the diagnostic research by levels are given in Figure 1:

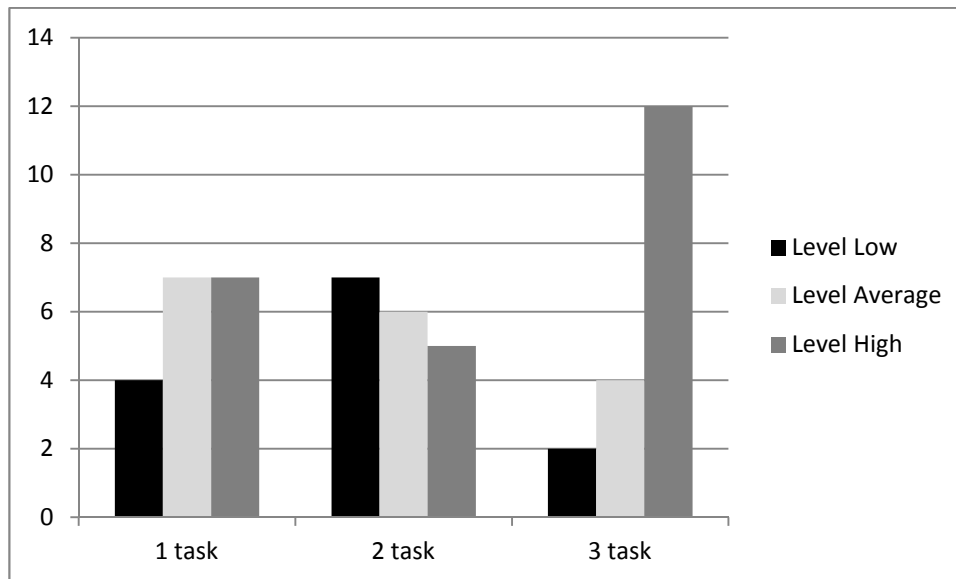


Figure 1. Results of the diagnostic research by levels

The analysis of the results obtained from the diagnostic research allows drawing the following conclusions:

1. The third assignment – comparative timbral analysis – has produced the best results. Though the assignment was not easy, many students coped with it excellently. The change of timbres at perceiving and analyzing music did not affect the quality of fulfilling the assignment: this can be attributed to the fact that music by P. Tchaikovsky and E. Dārziņš is quite popular and these compositions are listed as compulsory for listening in courses on music literature at a music school.
2. The assignment on identifying the solo instrument in the orchestral composition was also carried out relatively well: this indicator testifies to the fact that students are fairly competent in groups of instruments and within the orchestral texture can identify by ear a solo upper voice.
3. Complexities arose in the assignment on timbral modification: this type of timbral auditory analysis is novel. It is a well-known fact that to distinguish by ear melodic lines in the low or middle voices is much more difficult than to do it in the upper voice, and just the latter was presented in music fragments under the analysis. At timbral modification, the timbre of melody alters and independent voices undergo timbral changes. Timbral modification is one of the basic methods of the development in the orchestral music and requires a detailed exploration. The differentiation of a melodic line and identification of instruments must be done on the basis of distinguishing by ear a definite timbre within the context of music. This students' skill is not yet developed.
4. Low indicators of completing the diagnostic assignment were shown by vocalists. To our regret, the present educational praxis does not offer to future singers the opportunity to sing with the orchestra, and consequently the process of training vocalists takes place in mono-timbral conditions – accompanied on the piano. Therefore students-vocalists do not sufficiently acquire practical skills of interacting directly with other instruments.

5. The pedagogical strategy for the development and improvement of future professional musicians' timbral hearing has to take into account diagnostic indicators and be oriented towards learning to perceive by ear subtle timbral modifications.

References

- Adams, P. (2001). Assessment in the music classroom. In Chr. Philpott (Ed.), *Learning to Teach Music in the Secondary School* (pp. 163–176). London & New York.
- Asztalos, K. & Csapó, B. (2017). Development of musical abilities: Cross-sectional computer-based assessments in educational contexts. *Psychology of Music*, 45(5), 682–698. Retrieved 18.04.2021 from http://www.edu.u-szeged.hu/~csapo/publ/2017_Asztalos_Csapo_PsychologyOfMusic.pdf
- Bentley, A. (1966). *Measures of Musical Abilities*. London: Georges Harrap and Co.
- Bennett, S. (1976). The process of musical creation: Interview with eight composers. *Journal of Research in Music Education*, 24, 3–14.
- Burceva, R., Davidova, J., Kalniņa, D., Lanka, Ē. & Mackēviča, L. (2010). *Novitātes pedagoģijā profesionālās izglītības skolotājiem* [Novelties in Pedagogy for Teachers of Professional Education]. Rīga: Latvijas Universitāte. Retrieved 12.03.2021 from <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.
- Davidson, L., Scripp, L. & Meyard, J. (1988). Sightsinging ability: A quantitative and qualitative point of view. *Journal of Music Theory Pedagogy*, 2(1), 51–68.
- Gordon, E.E. (1971). *Music Learning Theory*. London: Prentice Hall.
- Handel, S. (1995). Timbre perception and auditory object identification. In B.C.J. Moore (Ed.), *Hearing* (pp. 425–461). New York: Academic Press.
- Handel, S. & Erickson, M.L. (2004). Sound source identification: The possible role of timbre transformations. *Music Perception*, 21, 587–610.
- Hargreaves, D.J. (2012). Musical imagination: Perception and production, beauty and creativity. *Psychology of Music*, 40(5), 539–557.
- Helmholtz, H. (1895). *On the Sensations of Tone as a Physiological Basis for the Theory of Music*. London, New York: Longmans, Green, and Co.
- Law, L.N.C. & Zentner, M. (2012). Assessing musical abilities objectively: Construction and validation of the profile of music perception skills. *PLoS One*, 7(12). doi: 10.1371/journal.pone.0052508
- Lehman, P. (1968). *Tests and Measurements in Music*. Englewood, New Jersey: Prentice-Hall, Inc.
- McPherson, G.E. & Zimmerman, B.J. (2011). Self-regulation of musical learning. In R. Colwell, & P.R. Webster (Eds.), *MENC Handbook of Research on Music Learning* (pp. 130–175). Oxford University Press. Retrieved 12.07.2022 from https://www.researchgate.net/publication/286487521_Self-Regulation_of_Musical_Learning
- Quesnei, R. (2009). *Timbral Ear Training*. VDM Verlag.

- Seashore, C.E. (1967). *Psychology of Music*. New York: Dover Publications.
- Seashore, C., Lewis, D. & Saetveit, J. (1960). *Manual of Instructions and Interpretations for the Seashore Measures of Musical Talents*. New York: The Psychological Corporation.
- Siedenburg, K., Saitis, Ch., Mcadams, S., Popper, A.N. & Fay, R. (Eds.) (2019). *Timbre: Acoustics, Perception, and Cognition*. Springer International Publishing.
- Stumpf, K. (1883). *Tonpsychologie*. Leipzig: Hirzel.
- Swanwick, K. (1999). *Teaching Music Musically*. London, New York: Routledge.
- Thompson, W.B. (1987). Music sight reading skill in flute players. *Journal of General Psychology*, 114, 345–352.
- Tkaczyk, V., Mills, M. & Hui, A. (Eds.) (2020). *Testing Hearing: The making of modern aurality*. Oxford: Scholarship Online. Retrieved 21.07.2022 from <https://oxford.universitypressscholarship.com/view/10.1093/oso/9780197511121.001.0001/oso-9780197511121>
- Ullén, F., Mosing, M.A., Holm, L., Eriksson, H. & Medison, G. (2014). Psychometric properties and heritability of a new online test for musicality: The Swedish Musical Discrimination Test. *Learning and Individual Differences*, 63, 87–93.
- Wallentin, M., Nielsen, A.H., Friis-Olivarius, M., Vuust, C. & Vuust, P. (2010). The Musical Ear Test: A new reliable test for measuring musical competence. *Learning and Individual Differences*, 20, 188–196.
- Zavadzka, G. (2021a). Criteria and indicators of the development of musician's timbre hearing. In *Society, Integration, Education: Proceedings of the International Scientific Conference*, Vol. I (pp. 788–795). Rēzekne: Rēzeknes Augstskola. Retrieved 18.07.2022 from <http://journals.ru.lv/index.php/SIE/article/view/6191/5045>
- Zavadzka, G. (2021b). Diagnosing of the timbral hearing development level of the future professional musicians. *Problems in Music Pedagogy*, 20(2). Retrieved 20.07.2022 from <http://pmp.du.lv/index.php/16-2/>
- Литвинова, Т. (2013). *Тембровое сольфеджио [Timbral Sol-fa]*. Санкт-Петербург: Союз художников.
- Тарасова, К. (1988). *Онтогенез музыкальных способностей [Ontogenesis of Musical Abilities]*. Москва: Педагогика.
- Теплов, Б. (1947). *Психология музыкальных способностей [Psychology of Musical Abilities]*. Москва, Ленинград: Издательство педагогических наук.

Received 11.05.2022

Accepted 15.08.2022

PSYCHOLOGY OF MASTERING STRUCTURAL COMBINATORICS IN THE ART OF MUSICAL IMPROVISATION

Jurijs SPIGINS

Latvia

email: jurijs.spigins@gmail.com

Abstract

To address the problem of organizing music material for improvisation and its structuring are compulsory requirements at optimizing students' educational process at higher education institutions. The paper is concerned with the analysis of psychology of the development of students' improvisational thinking, based on the method of structuring the music material (Smith, 1964; Сапонов, 1982, 1989, 1996; Гнилов, 1992; Волнянский, 2012).

The aptitude for structural combinatorics of different music materials was encouraged and developed in the 18th century. This skill is based on the reconstruction of the structure of music material belonging to different styles and trends. But the limits of what is possible in the development of students' improvisational thinking depend on their abilities. On the one hand, the principal individual-psychological factors of effectiveness are the basic or general musical abilities. Contemporary science considers that the basic musical abilities are: musical hearing, sense of musical rhythm, musical memory, musical thinking and musical imagination. On the other hand, today's scientific literature offers a lot of data on correlations between the speed of the reaction of choice and indicators of intelligence tests: the higher intelligence is, the quicker many choice reactions take place.

The case study research revealed a number of simplifications the students had made in creative assignments at modelling their improvisations, and namely: students had ignored issues of structuring the music material for improvisation, but to address the problem of organizing music material of improvisation, and its structuring are compulsory requirements for optimizing the educational process at higher education institutions.

Keywords: *musical improvisation, psychology of learning, structural combinatorics, decorative-processing approach, principal specific individual-psychological factors of effectiveness, didactic model, content analysis of improviser's activity*

Introduction

Though the studies on the methods of optimizing creative processes of learning the foundations of improvisation are successfully carried out on the basis of musical modelling (e. g. Reimer, 1989; Elliott, 1995; Hamilton, 2002; Martin, 2005; Hallam, 2006; Спигин, 2008; Shaughnessy, 2012; Spigins, 2013), there are several questions in this field of knowledge which still remain unanswered. In the result of a specific case research, we discovered a number of simplifications made by students in the creative assignments at modelling their improvisations, and namely: students had ignored issues of structuring the music material of improvisation, but handling the problem of organizing the music material for improvisation and of its structuring is a compulsory requirement for the optimization of students' educational process in a higher education institution. Therefore, this paper analyses psychological aspects of the development of students' improvisational thinking based on two approaches to structuring the music material for improvisation, which sooner supplement than contradict each other. These are *decorative-processing approach* in praxis of improvisation and *structural combinatorics* in praxis of improvisation (e. g. Smith, 1964; Сапонов, 1982, 1989, 1996; Гнилов, 1992; Волнянский, 2012).

A decorative-processing approach in praxis of improvisation and structural combinatorics of various music materials were encouraged and developed in the 18th century (Сапонов, 1982, 1989, 1996). This skill is based on the reconstruction of the structure of various music materials belonging to different music styles and trends. In the result of such a reconstruction, there emerges a new improvisation with new possibilities of intoning the initial material. These approaches effectively develop psychology of mastering the structural combinatorics in the art of musical improvisation.

Research object: psychology of developing students' improvisational thinking in the process of mastering a decorative-processing approach and structural combinatorics in the praxis of improvisation.

Research aim: to analyse the nature of decorative-processing approach and structural combinatorics in the practice of students' improvisation, and to explore the impact of the process of mastering the decorative-processing approach and structural combinatorics in practice of students' improvisation on psychology of the development of students' improvisational thinking.

Research methods: methods used within the frame of case study are as follows: analysis of literature on philosophy, psychology, musicology, and pedagogy; logical method, modelling of improviser's activity, case study research.

Decorative-processing Approach in Praxis of Improvisation

This paper will focus on and analyse one of the most important sides of improvisational creativity which determines the principles and different approaches to the process of creating an improvisation. This is the "decorative-processing approach" (Гнилов, 1992). According to one of the oldest representatives of American piano jazz, Willy Smith (1964), we learnt the melody by ear and then tried to embellish it with our own ideas. To play music by ear implies the ability to produce it

without notes. The practice of embellishing the theme in a piano improvisation contributed to the emergence of such concepts as *embellishment*, *filling-in* a. o.

Let's look at the nature of a filling-in practice in a piano improvisation. Being faced with the necessity to embellish a melody during the implementation of a decorative-processing approach, the improviser begins to seek for the sources of ornamental material. Learners, who have not been confronted with the improvisation before, cannot independently generate decorative-processing material for modelling specific styles, since they do not have the auditory experience with the necessary content as yet. After choosing the style for their own improvisations, it would be necessary for them to borrow this material from reliable sources. The process of borrowing the material and its further integration into a decorative-processing theme were discussed with the students by using the example of assimilating and developing musical ideas taken from works by a well-known pianist, composer and improviser O. Peterson (Spigins, 2013; Спигин, 2019). He is the improviser who most completely and comprehensively has elaborated the principles of practical improvisational development of music material. It was shown that, to a certain degree, any melodic-rhythmic construction may become a "pattern" – a model (rhythmic figure, melodic construction, cycle of accents or sequence of chords, formula of texture etc.).

A pattern is a peculiar building material for a musical development. It is a stable structural formation which does not lose its stability at being repeated several times, but allows its own diverse variation (changing of accents, transposition, sequencing).

Structural Combinatorics in Praxis of Improvisation

This paper will look at the problems of the architectonics (composition) of improvisation processes in music of the 20th century, based on making generalizations about tendencies of improvisational thinking in the epoch of postmodernism. In the result of the most complicated evolution which the art of music had undergone, the problems of architectonics became especially acute. A new approach under the name of "structural combinatorics" emerged then. This approach allows to freely structure the music material independent of the nature of its sound-pitch and syntactic organization. The main principle of the structural combinatorics is modifying and combining or a modified combining of structural elements.

On the basis of a decorative-processing approach in praxis of improvisation, students developed their skills in improvisations of the type: a) paraphrase, b) formulary improvisation; c) motif improvisation.

It is quite obvious that at adopting a decorative-processing approach in praxis of improvisation, students are restricted only by the sound-pitch and syntactic organization of that or another language of music material. In music, whose organization is not tonal and which lacks a generally accepted system and all kinds of models emerging from it – both compositional and transformative (the result of transforming the initial text), structuring becomes improvisers' personal prerogative and takes place on the basis of a conceptual space organized individually. This is time – space where various sound structures exist: motifs, figures, patterns and much larger structural objects, such as, for instance, different combined music systems.

Everything said above suggests a new understanding about the architectonics of a compositional-improvisational process.

In practice of improvisation, structural combinatorics allows to freely structure music material independent of the nature of its sound-pitch and syntactic organization. However, it requires special psychological qualities of students' personality. Students are faced with the necessity to process a vast amount of information within a very limited period of time given for sorting out possible alternatives for coping with their creative tasks. At this point, it becomes clear that this process requires special psychological abilities. By using a decorative-processing approach in the praxis of improvisation, students develop their ability to quickly respond to a changing structure of a sound flow.

Contemporary literature offers a lot of information on the correlation between the speed of responding to changes and indicators of intelligence tests: the higher the intelligence is, the quicker the response to changes is made. (Айзенк, 1995; Чуприкова & Ратанова, 1995; Knorr & Neubauer, 1996; Чуприкова, 1997, 2007; Ратанова & Чуприкова, 2004). Thus, G. Aisenk (Айзенк, 1995) interprets a biological intellect as a simple speed of transmitting nervous impulses along the neuron chains. In turn, N. Chuprikova's (Чуприкова, 2007) conception offers a different interpretation of a link existing between the intellect and time of the reaction to changes: it is based on such a perception about the nature of intellect that contradicts Aisenk's idea. N. Chuprikova has shown that the time of a simple reaction is shorter for more gifted children aged 9, while for grown-ups (17 years old) such differences were not identified (Чуприкова, 2007).

This paper describes a specific case study research where the analysis is principally oriented towards a practical implementation of goals and tasks formulated before (speed of reaction to changes in case of structural combinatorics). The term *case study* used in this paper complies with the definition given by R. Yin (1989), who interprets *case study* as empirical research, which explores a contemporary phenomenon within the context of existing reality. The borderline between the phenomenon and the context is not evident, and a lot of multiform sources of information are used in it.

There is no special moment when data collecting for a case study begins (Stake, 1995). This deep thought expressed by the American scientist underlines the fact that researcher's knowledge and experience that have been accumulated during many years of professional activity are necessary for studying any specific case.

Case Study Design and Results

At describing the history of case, for the sake of greater clarity of how events occur, at first, only a formal side of the events will be described, and aspects which are related to chronology and content analysis will not be taken into account. During the research, we carried out the observation of creative processes, which took place during the final classes on mastering the fundamentals of musical improvisation in one of the universities of Latvia at the faculty of pedagogy. The results obtained from observations were analysed and studied.

The classes were held once a week, each three hours long, and lasted for a month. Three students from the representative sample are characterized by definite significant features, typical of the whole general totality of this research. During classes, students worked with two texts of notes. In the second text, music theme was expounded, and students had to fill in the missing structural gaps. The first note text included a composition thematically completely unrelated to the second music theme. But the thing common for the structure of the first and the second note examples was the fact that in both cases there were motifs, figures, patterns, and phrases. It was required to borrow the material missing in the second example from the first example. This was a process of borrowing the material and its further integration. Students were faced with the necessity to sort out various alternatives within a very short period of time and select the needed structure for carrying out their creative assignment, namely: to find the material, and even if it involved transformations, fill the structural gaps in. At the beginning of a class, the speed of the reaction of choice was zero. Students could not identify (did not hear by the inner ear) those variants with which the structural gaps could be filled in. They were short of time, since only 5 minutes were allotted to carrying out the task. The speed of the reaction of choice was insufficient. Due to a long independent training, one student managed to cope with the set task. Mastering the structural combinatorics appeared to be the most difficult assignment.

What was the goal of this class? Why was it necessary to cope with the task in 5 minutes' time? At the first encounter with the language of one or another style, much time is needed for comprehension and auditory adaptation to the specificity of architectonics of a concrete composition: here everything is new – be it a rhythmic figure, melodic construction, cycle of accent, chord sequence or formula of texture. In this case you must not hurry. However, when playing in an ensemble on the stage, you do not have this time, since you must immediately respond to other musicians, and to react to any musical event. It is necessary to automatize the auditory flow to such a degree that you would be able to insert your own musical ideas into the common context of musical form and its flow. This strongly resembles playing in the ensemble and performing academic music. Musicians control the slightest changes in tempo and rhythm of the general conception of the composition performed. But in the second case there is a ready text, while in the first case it is missing.

Let's give an example of work in the classroom.

Figure 1. Example 1 Texas Blues O. Peterson (1972)

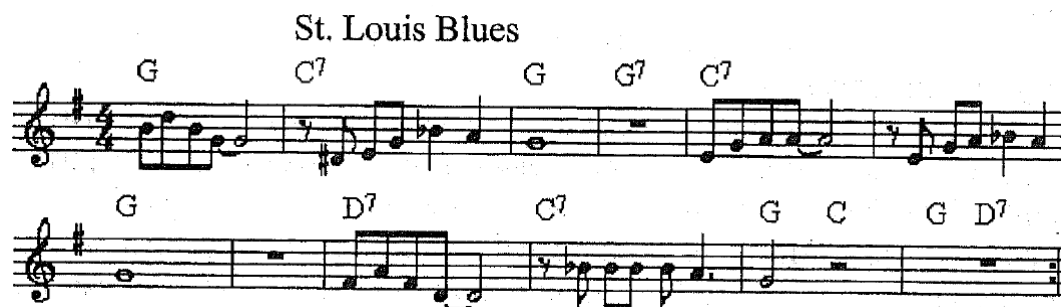


Figure 2. Example 2 St. Louis Blues W. Handy (1914)

Assignment: fill in bars 3,4; bars 7,8 and bars 11,12 of St. Louis Blues W. Handy with possible structures from Texas Blues O. Peterson. A correct solution – any combination of structures is possible. But, taking into account architectonics, it would be better to use structure 1 from Texas Blues for bars 3,4 St. Louis Blues, structure 2 Texas Blues for bars 7,8 St. Louis Blues, and structure 3 Texas Blues for bars 11,12 St. Louis Blues.

The teacher must not hurry with drawing conclusions and tread on the new shoots of emerging creative needs. In her lectures on problems of the development of human brain, T. Chernigovskya (Черниговская, 2022) warns against taking prompt decisions at evaluating perspectives of personality's development. Any talent must be given the opportunity to develop.

Conclusions

1. Skills and abilities of structuring music material are a compulsory condition for optimizing students' educational process at a higher education institution. Speaking about the psychology of learning structural combinatorics in the art of musical improvisation, it is necessary to emphasize the fact that structural combinatorics is the most essential element in improvisers' activity. He starts learning different kinds of activity just at the very first lesson on improvisation.
2. Activities for mastering a decorative-processing approach and structural combinatorics in improvisers' practice develop students' ability of adequately responding to changes in a creative algorithm when plying in ensemble. Knowledge, skills and abilities help to accelerate personality's psychological development, but the activity – to make it automatic and more effective.
3. In the result of special studies and observations (case study research) we can say that any activity mastered by the students increases their knowledge and gives them new opportunities for self-realization as creative personalities.

References

- Elliott, D. (1995). *Music Matters: A new philosophy of music education*. New York: Oxford University Press.
- Hallam, S. (2006). *Music Psychology in Education*. London: Institute of Education.
- Hamilton, A. (2002). The art of improvisation and the aesthetics of imperfection. In G. Spruce (Ed.), *Teaching Music in Secondary Schools* (pp. 209–225). New York: Routledge Falmer.
- Knorr, E. & Neubauer, A. (1996). Speed of information: Processing in an inductive reasoning task and its relationship to psychometric intelligence. *Personality and Individual Differences*, 20, 653–660.
- Martin, J. (2005). Composing and improvising. In D.J. Elliott (Ed.), *Praxial Music Education: Reflections and dialogues* (pp. 165–176). New York: Oxford University Press.
- Reimer, B. (1989). *A Philosophy of Music Education*. New Jersey: Prentice Hall.
- Shaughnessy, M. (2012). An interview with Mark dal Porto: The composer, composition and the craft. *Problems in Music Pedagogy*, 10, 82–86.
- Smith, W. (1964). *Music on My Mind: The memoirs of an American pianist*. New York: Doubleday.
- Spigins, J. (2013). *Improvizācijas pamatu apguve topošo mūzikas skolotāju studiju procesā* [The Acquisition of the Basics of Improvisation in the Study Process of Training Prospective Music Teachers]. Riga, SIA Jumi (in Latvian).
- Spigins, J. (2019). The principal non-specific and specific individual-psychological factors of effectiveness at mastering musical improvisation. *Problems in Music Pedagogy*, 18(1), 45–57.
- Айзенк, Г. (1995). Интеллект: Новый взгляд [Intelligence: A new look]. *Вопросы психологии*, 1, 111–113 (in Russian).
- Волнянский, К. (2012). *Структурная комбинаторика как принцип композиционного мышления в музыке XX века* [Structural Combinatorics as a Principle of Compositional Thinking in Music of the 20th Century]. Санкт-Петербург (in Russian).
- Гнилов, Б. (1992). *Фортепианное джазовое исполнительство как вид музыкального творчества (1940–1950-е годы)* [Piano and Jazz Performance as a Kind of Musical Creativity (1940–1950s)]. Москва: МГК (in Russian).
- Назайкинский, Е. (1972). *О психологии музыкального восприятия* [On Psychology of Music Perception]. Москва: Музыка (in Russian).
- Овсянкина, Г. (2007). *Музыкальная психология* [Music Psychology]. Санкт-Петербург: Союз художников (in Russian).
- Ратанова, Т.А. & Чуприкова, Н.И. (2004). Время реакций как показатель дискриминативной способности мозга, интеллекта и специальных способностей [Time of reaction as an indicator of discriminative ability of brain, intellect and specialabilities]. In Т.Н. Ушакова, & Н.И. Чуприкова (Ред), *Психология высших когнитивных процессов* (с.с. 33–56). Москва: ИП РАН (in Russian).

Сапонов, М. (1982). *Искусство импровизации* [Art of Improvisation]. Москва: Музыка (in Russian).

Сапонов, М. (1989). Устная культура как материал медиевистики. Традиция в истории музыкальной культуры. Античность. Средневековье. Новое время [Oral culture as a material of media. Traditions in history of musical culture. Antiqueness. Middle Ages. New Time]. In *Проблемы музыкознания*, 3 вып. (с. 58–72). Ленинград: Ленинградский государственный институт театра, музыки и кинематографии (in Russian).

Сапонов, М. (1996). *Менестрели* [Minstrels]. Москва: Прест (in Russian).

Спигин, Ю. (2008). *Импровизация в контексте теории и истории музыки и её проявление в джазе: Монография* [Improvisation in the Context of Theory and History of Music and Its Manifestation in Jazz]. Rīga: JUMI (in Russian).

Теплов, Б. (2005). Психология музыкальных способностей [Psychology of musical abilities]. In А. Тарас (Ред.), *Психология музыки и музыкальных способностей* (с. 15–360). Москва: Издательство АСТ (in Russian).

Чуприкова, Н.И. & Ратанова, Т.А. (1995). Связь показателей интеллекта и когнитивной дифференцированности у младших школьников [Correlation between indicators of intelligence and cognitive difference]. *Вопросы психологии*, 3, 104–114 (in Russian).

Чуприкова, Н.И. (1997). *Психология умственного развития: принцип дифференциации* [Psychology of Mental Development: Principle of differentiation]. Москва: АО «Столетие» (in Russian).

Чуприкова, Н.И. (2007). *Умственное развитие: принцип дифференциации* [Mental Development: Principle of differentiation]. Санкт-Петербург: Питер (in Russian).

Received 26.07.2022

Accepted 21.08.2022

STUDENTS' SELF-EVALUATION OF MASTERING PIANO PLAYING DURING A DISTANCE-LEARNING PROCESS IN THE CONTEXT OF THE AXIOLOGICAL APPROACH

Larisa MAĻKOVA

Latvia

email: lara.malkova@gmail.com

Abstract

The intensive social development of the society increases demands on the development of an active and creative personality. These demands bring to the forefront research on such problems that relate to processes which encourage an individual to be the subject of one's own existence and activity, constantly stimulating perspectives of one's development and ways and means of its implementation.

The skill of evaluating the results of one's activities, or self-evaluation, is an important factor of a student's learning activity. At introducing the concept of "self-evaluation", James (2003) acknowledged that the skill of self-evaluation influences the effectiveness of human's activity. The acquisition of self-evaluation skills encompasses not only the assessment of the quality of one's knowledge and skills, but allows to rationally construct one's learning activities on the whole. The necessity to possess such skills is especially obvious in case piano playing is mastered in the form of distance learning. Distance learning, having both its plusses and minuses, allows expanding the range of methods for mastering the piano playing under various conditions.

This paper focuses on the process of mastering piano playing within the context of the axiological approach by using criteria, indicators and levels.

Key words: *student's self-evaluation, mastering piano playing, distance learning, axiological approach*

Introduction

The reality of today dictates its own conditions. The intensive social development of the society increases demands on the development of an active and creative personality. These demands, in turn, highlight the necessity for focusing on the research on problems that are related to the processes which stimulate an individual to be the subject of one's own existence and activity, independently resolving

problems of developmental perspectives, as well as ways and means of their implementation. Any teacher can try to test themselves in new conditions.

The 21st century can be called the *online* epoch, since it is characterized by the growth in number of actions performed from a distance. Several new methods have appeared and are used in the process of learning piano playing, and the necessity for developing and providing learners with possibilities to self-evaluate their learning activities (in our case – piano playing) has come to the foreground.

Research aim: within the context of the axiological approach, to analyze learners' possibilities to self-analyze their learning activities of mastering piano playing in the distance-learning process.

Research subject: the development of learners' self-evaluation of their learning activities during the process of mastering piano playing in a distance-learning format.

Research methods: the analysis of literature on philosophy, psychology, pedagogy and learners' questionnaire survey (analysis of learners' self-evaluation).

The research is based on the axiological approach, making the evaluation of theoretical findings and interpreting the process and results of mastering piano playing in connection with the opportunities to improve distance-learning.

Mastering Piano Playing in a Distance Learning Process

A lesson taught from a distance or distance learning is the interaction between a learner and a teacher from a distance, implemented with the help of technological means, where all usual elements of educational process, namely, theory, practice, control and evaluation, have been preserved.

Several known studies on distance learning acknowledge that origins of distance learning are to be looked for in 19th century (Полат, 2004; Anderson, 2008; Grahame & Anderson, 2012). But the importance and problems of distance learning became especially acute in the recent 2 years due to sanitary-epidemiologic situation, when distance learning was the only way out in this situation (Hacaturjana, 2021). Teachers had to seek for new methods, and learn how to cope with new information and teaching/learning technologies.

During the time of Covid-19, the process of learning piano playing also took place predominantly from a distance. Several discussion seminars were conducted and teachers' opinions on the problem were sought and received. The analysis of these opinions allows formulating both the negative and positive factors of distance-learning piano playing lessons. Let's begin with the negative ones.

The first and most important thing is the fact that at *online* lessons a sound change takes place, which is a critical reason in case the result of the performance is assessed. A sound, transmitted during the lesson greatly differs from the original one in timber, dynamics and sometimes also in rhythm. Consequently, at distance learning lessons the quality of music performance as a kind of art may suffer.

Second, especially during the initial period of learning piano playing, when teaching a correct positioning of player's hands takes place, a direct contact between a teacher and a learner is of great importance. Of course, the necessary result can be achieved also via a distance-learning process, but this will take much more time.

The advantages of distance-learning lessons are:

- First, economy of time: time was not spent on going to school, it was enough to connect to the lesson, which needs only having a telephone or a computer (laptop) with the internet connection;
- Second, lessons take place in a usual home environment which promotes a freer behavior;
- Third, according to the author's observations, learners are more concentrated and attentive at the lesson, since their attention is focused on a small screen where the teacher is;
- Fourth, during a lesson taught in such a format, a learner remains alone with himself. Physically, there is no teacher beside who could help to put a hand on the right key. Learners learn to take full responsibility on themselves, become more independent as to the use of their skills, and learn to independently analyze things that are happening around, namely, they learn to do the self-evaluation of their performance. And it is a well-known fact that self-evaluation is part of self-control.

Self-control is a process of comprehensive studying, measuring and evaluating the results of the development done by the learners themselves. Psychologist D. Elkonin (Эльконин, 2011) maintains that self-control has a special role because the acquisition of this action characterizes child's ability to manage the whole learning process. Consequently, self-control is necessary for the management of a learning activity because otherwise learners' learning cannot be considered as ready. The compulsory conditions of this learning are:

- To study the examples of a self-control activity;
- To define the assessment criteria;
- To receive a constant encouragement to control one's activities in different forms.

Psychologist D. Elkonin (Эльконин, 2011) states that learners have acquired self-control activities if they can:

- Compare the results of their activities with the standard;
- Analyze whether their way of learning and means for achieving the aim are right (wrong);
- Analyze their mistakes or failures, reasons that have caused them and identify ways how to correct them.

During the process of the formation of self-control, a self-evaluation skill as a component of self-control is developed. Besides, there is a correlation between them: the better learners can control themselves, the more adequate their self-evaluations are. Self-evaluation makes an impact on the effectiveness of learners' learning activities and on the degree of their desire to achieve the growth. The skill to evaluate

one's own activity involves a qualitative assessment of one's strong and weak points and allows a rational organization of learning.

The phenomenology of the concept 'self-evaluation' is wide. The first scientist who introduced the concept of 'self-evaluation' into the structure of "one's own image" of personality was W. James (James, 2003). W. James' approach to self-evaluation includes self-respect, satisfaction with oneself, which the scientist imagined as a formula: self-respect = success (real abilities) divided by the level of claims.

Historically, the research on the phenomenon of self-evaluation carried out by many scientists has revealed several trends in its development. Those known better are:

- Psychoanalytical (Freud, 2000),
- Neo-Freudian (Sullivan, 2006),
- Behavioristic, when self-evaluation was analyzed as one of the factors regulating behavior (Bandura, 2000),
- Humanistic (Maslow, 1987; Rogers, 2004),
- Phenomenological (Бранден, 2018).

Problems related to self-evaluation have been explored also by L. Vigotsky (Выготский, 2005), A. Leontjev (Леонтьев, 2004), V. Rubinstein (Рубинштейн, 2000).

We have to note that in order self-evaluation would allow keeping learners' claims and their actual abilities in a harmonious proportion, it is necessary to emphasize that according to scientists' findings self-evaluation has several functions (see Table 1).

Table 1. Self-evaluation functions and their description

Function	Description
Stimulating	Motivates a learner to the action which might increase self-evaluation
Post-prognosticating	Blocks the action which might increase self-evaluation
Regulating	Provides acceptance of tasks and choice of solution by a learner
Emotional	Allows a learner to meet his needs and feel satisfaction, or vice versa be dissatisfied for unknown reasons
Protecting	Ensures personality's stability
Controlling	Provides self-control during the action
Developing	Motivates for self-development

The data given in the table allow concluding that self-evaluation has educational, analytical correcting, developing and controlling functions.

Research Design

The paper includes the analysis of the period, when at learning and preparing the composition with a teacher during a distance learning process, learners have to record their performances in a video format and send them to the teacher for assessment (in

this case parents' permission is necessary). Before they send video recordings to the teacher, learners themselves decide whether they want to send this specific video or they would like to take the opportunity of playing the program once more and improving some aspects. The discussion with learners revealed an interesting situation concerning the number of times learners performed and recorded the program at home before they sent it to the teacher.

During the research, opinions of 32 learners of Riga secondary school No. 88 have been studied and analyzed. For this analysis, researchers used criteria of mastering the piano playing within the context of the axiological approach which are described in the author's paper (Maļkova, 2015). Criteria offered in this paper (see Table 2) are based on the findings by human psychologists A. Maslow (Маслоу, 1987) and K. Rogers (2004) about self-realization as a value, which is expressed in its aspects: motivation, creativity, self-organization, communication.

Table 2. Criteria, indicators and levels of mastering piano playing in the context of the axiological approach

Criteria	Indicators	Levels*				
		1	2	3	4	5
1. Motivation	A learner:					
1.1. cognitive						
1.1.1. internal	1.1.1.1. wants to master piano playing by playing popular or jazz compositions;					
	1.1.1.2. wants to master piano playing by performing any kind of music;					
1.1.2. external	1.1.2. wants to master piano playing because he will perform music which the audience likes;					
1.2. achieving success						
1.2.1. internal	1.2.1.1. wants to master piano playing because he will internally feel more confident among friends;					
	1.2.1.2. wants to develop technical skills of piano playing for further professional activities;					
1.2.2. external	1.2.2. wants to master piano playing because is supported by the audience.					
2. Creativity	A learner:					
	2.1. wants to learn performing music on the piano by ear;					
	2.2. wants to acquire skills of improvising on the piano;					
	2.3. is interested in music of various style.					
3. Self-organization	A learner:					
	3.1. is able to set the aim;					
	3.2. knows how to plan time;					
	3.3. is able to overcome difficulties in learning;					
	3.4. is able to make self-evaluation and corrections in it.					

Criteria	Indicators	Levels*				
		1	2	3	4	5
4. Communication	A learner: 4.1. is sensible – sensitive to his emotions and needs; 4.2. accepts others such as they are; 4.3. can establish contacts.					

* Levels: 1 – Yes; 2 – Sooner yes; 3 – Sooner no; 4 – No; 5 – I don't know

Learners were asked several questions pertaining to the criterion “self-organization”:

1. *From which time of video-recording did your performance satisfy you and you sent it to the teacher?*
2. *Do you know how to set learning aims?*
3. *Did you plan the time of your performance videorecording?*
4. *Do you know how to overcome difficulties, to your mind?*
5. *Can you carry out self-evaluation?*
6. *Do you know the functions of self-evaluation?*

Learners' replies were grouped by the number of times mentioned most frequently (see Table 3).

Table 3. The result of learners' answers

Question (indicator of the criterion)	Number of learners		
	Yes	No	Don't know
1. From which time of videorecording did your performance satisfy you?	From the st time	-	
	Up to 10 times	9	
	More than 10 times	19	
	I was recording 2 days	4	
2. Do you know how to set learning aims?	32	-	-
3. Did you plan the time of your performance videorecording?	2	25	5
4. Do you know how to overcome difficulties, in your opinion?	25	7	-
5. Can you carry out self-evaluation?	17	-	15
6. Would the knowledge about self-evaluation functions diminish the number of videorecording times?	32	-	-

The analysis of learners' opinions allowed concluding that the performance recorded the first time had satisfied no learner. The greatest number of learners – 19 learners – have made recordings more than 10 times. From these they have chosen the best one (in their opinion) and have sent it to the teacher. But for four learners even a day was not enough to choose the best one. All learners knew what aim they desired to achieve. The majority of learners admitted that they know how to overcome difficulties in learning the piano playing. Two learners could carry out self-evaluation, but interpreted the importance of self-evaluation in a simplified way: their performance satisfied or dissatisfied them. Learners' answers show that in regard to

the question of time planning the main thing for them was to video-record the variant which satisfied them, regardless of time this could require. However, discussions with learners about the significance of self-evaluation functions revealed that all learners admitted that they would sooner like to spend less time on recording their performance.

It should be mentioned that learners were informed about the assessment criteria (see Table 4) which had been discussed and developed at lessons. Learners also have the access to internet resources where they can listen to the performance of several pianoplayers.

Table 4. Assessment criteria of Riga secondary school No. 88 learners' learning achievements in instrument playing at an open concert

Criteria	Points	Indicators
1. Correspondence of the repertoire to the requirements of instrument playing	3	Degree of program's complexity is low
	4-5	Degree of complexity is 50% below average
	6	Degree of complexity is average
	7-8	Degree of complexity corresponds to requirements
	9	Complexity of several compositions is above the requirements of a curriculum
2. Culture of performance (behavior, posture, artistic qualities)	10	Complexity of all compositions is above the requirements of a curriculum
	3	Culture of performance is not satisfactory
	4-5	Culture of performance is not satisfactory in some components
	6-7	On the whole the culture of performance is adequate, it lacks artistic qualities
	8-9	Culture of performance meets the requirements, there is freedom and certain artistic qualities
3. Appearance	10	Convincing, free, striking and artistic performance
	A point minus from the total mark for ignoring the indicator	3.1. Concert dress and footwear; 3.2. Tidy hair; 3.3. Nails cut
4. Compliance of the performance of a composition with the composer's instructions	3	The performance does not comply with composer's instructions, many mistakes in the text
	4	The performance partly complies with composer's instructions, some mistakes in the text
	5-6	On the whole the performance complies with composer's instructions, but there are some imprecisions
	7-8	On the whole the performance complies with composer's instructions, occasionally a little bit formal
	9-10	On the whole the performance complies with composer's instructions, it is logical and convincing.

Criteria	Points	Indicators
5. Technical level of the performance (tempo, precision, metro-rhythm, bowing, apparatus and articulation)	3	Technical level is low, several technical components are used wrongly
	4	Technical level is insufficient, several technical components are not precise
	5-6	Technical level is satisfactory, not all technical components are precise and convincing
	7	Technical level is good, but the quality of some technical components is not sufficient
	8-9	Technical arsenal of performance is used in different ways and is well balanced
	10	Technical level is high, the use of technical components is clear, precise and convincing and allows full focusing on revealing the content artistically
6. Artistic side of the performance (content, image, form, dynamics, agogic, phrasing, originality)	3	Technical level is low, several technical components are used wrongly
	4	Technical level is insufficient, several technical components are not precise
	5	Technical level is satisfactory, not all technical components are precise and convincing
	6-7	Technical level is good, but the quality of some technical components is not sufficient
	8-9	Technical arsenal of performance is used in different ways and is well balanced
	10	Technical level is high, the use of technical components is clear, precise and convincing and allows full focusing on revealing the content artistically

The learners admitted that during the process of video-recording they had developed higher demands on the results of their own work. Learners liked the method of assessing video-recordings, since it allowed improving the performance by making videorecording several times. Such demands are nothing else than a feature of self-control whose concluding stage is self-evaluation of learning.

In the author's case of a video-recording, learners have to learn how to plan their time and how to use it appropriately.

Conclusions

1. Self-evaluation plays a great role for the development of learners' understanding about the difference between things they lay claim to and things which they are actually ready for.
2. Research results testify to the fact that before entrusting the learners with the task to carry out self-evaluation in some learning stage (in our case – piano performance) it is vital to thoroughly discuss with them the description of the function of self-evaluation of their performance. Learners' awareness about the

self-evaluation functions will, by all means, promote planning of time at mastering piano playing during a distance-learning.

3. Several forms of distance-learning may promote the development of learners' personality in the context of the axiological approach.

References

- Anderson, T. (2008). *Theory and Practice of Online Education*. Athabasca University.
- Freids, Z. (2000) *Īgnums kultūrā* [Sullenness in Culture]. Rīga: Zvaigzne ABC (in Latvian).
- Grahame, M. & Anderson, W. (2012). *Handbook of Distance Education* (2nd ed.). Psychology Press.
- Насатрjana, L. (2012). *Sakarības starp skolēnu mācību snieguma izmaiņām, pašvadības un problēmrisināšanas prasmēm klātienēs un attālinātās mācīšanās laikā* [Connectedness between the changes of learners' learning achievements, self-management and problem-solving skills during learning in classroom and during distance-learning]. (in Latvian). Retrieved July 27, 2022, from <https://www.lu.lv/zinatne/programmas-un-projekti/>
- James, W. (2003) *Psychology: The briefer course*. Dover Publications.
- Мајkova, L. (2015) Criteria, indicators and levels of mastering piano playing. *Problems in Music Pedagogy*, 14(2), 161–169.
- Maslow, A. (1987). *Motivation and Personality*. New York: Addison-Wesley.
- Rogers, C.R. (2004). *On Becoming a Person*. London: Constable and Robinson.
- Vygotsky, L.S. (1978). *Mind in Society: The development of higher psychological processes*. Cambridge, Massachusetts: Harvard University Press.
- Sullivan, H.S. (2006). *Interpersonal Theory and Psychotherapy*. Routledge.
- Бандура, А. (2000). *Теория социального научения* [Theory of Social Training]. Санкт-Петербург: Евразия (in Russian).
- Бранден, Н. (2018). *Шесть столпов самооценки* [Six Pillars of Self-evaluation]. Москва: МИФ (in Russian).
- Леонтьев, А.Н. (2004). *Деятельность. Сознание. Личность* [Activity. Consciousness. Personality]. Москва: Смысл (in Russian).
- Рубинштейн, С. (2000). *Основы общей психологии* [Foundations of General Psychology]. Санкт-Петербург: Питер (in Russian).
- Эльконин, Д. (2011). *Детская психология* [Children Psychology]. Москва: Академия (in Russian).

Received 26.07.2022

Accepted 21.08.2022

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

Heddi REINSALU

*Tallinn University, Estonia
e-mail: heddir@tlu.ee*

Inge TIMOŠTŠUK

*Tallinn University, Estonia
e-mail: inget@tlu.ee*

Inkeri RUOKONEN

*University of Turku, Finland
e-mail: inkeri.ruokonen@utu.fi*

Abstract

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

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

Introduction

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

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

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

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

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

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

Defining Key Concepts

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

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

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

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

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

B. Motivation

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

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

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

C. Engagement in general education

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

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

D. Engagement in music education

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

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

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

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

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

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

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

Aim and Research Questions

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

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

Data Collection Procedure

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

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

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

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

Data Analysis

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

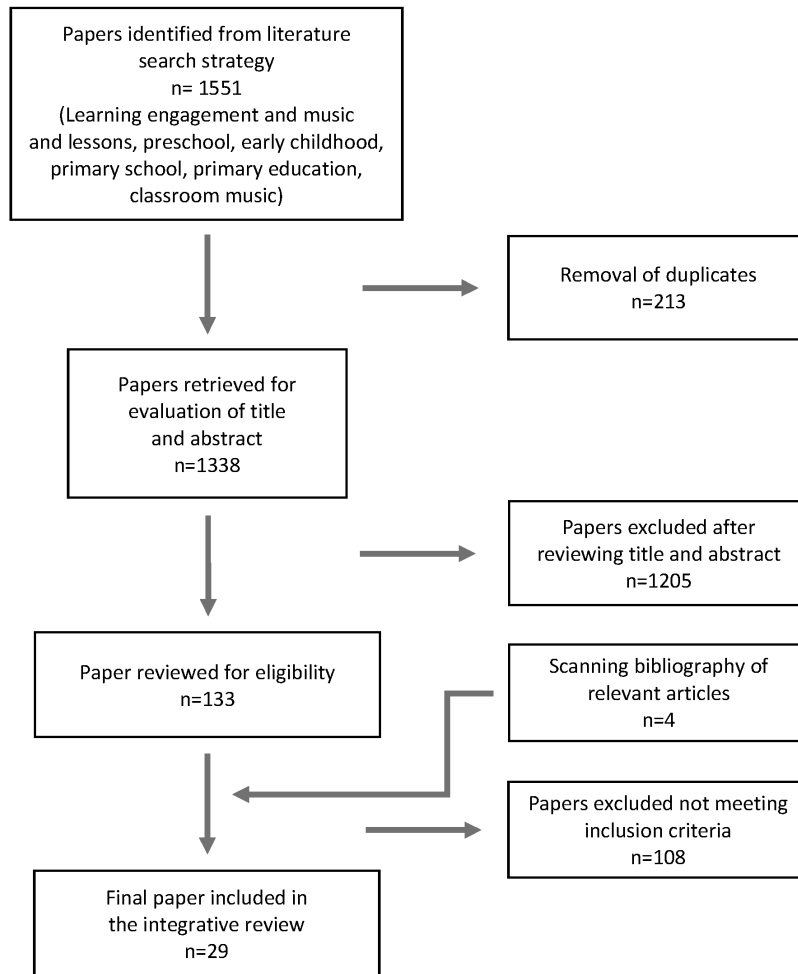


Figure 1. Flow diagram with the results of our database search

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

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

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

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

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

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

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

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

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

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

Results

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

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

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

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

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

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

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

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

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

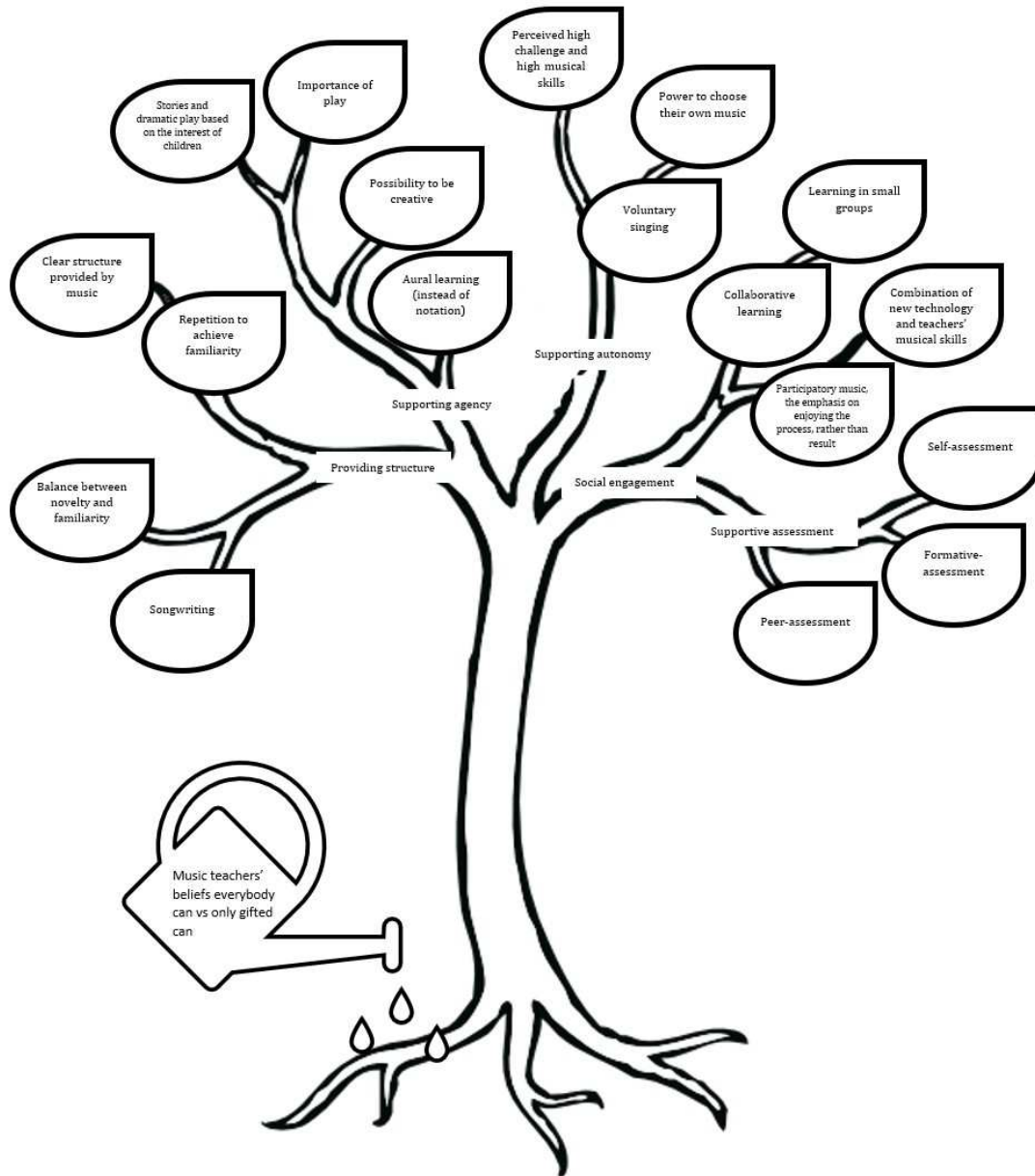


Figure 2. A musical engagement tree – facilitators of learning engagement in music

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

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

Conclusions and Discussion

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

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

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

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

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

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

Limitations

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

References

- Ainley, M. & Patrick, L. (2006). Measuring self-regulated learning processes through tracking patterns of student interaction with achievement activities. *Educational Psychology Review*, 18(3), 267–286.
- Angel-Alvarado, R., Belletich, O. & Wilhelmi, M.R. (2020). Exploring motivation in music teachers: The case of three primary schools in Spain. *British Journal of Music Education*, 37(3), 196–206.
- Angel-Alvarado, R., Belletich, O. & Wilhelmi, M.R. (2021). Isolation at the workplace: The case of music teachers in the Spanish primary education system. *Music Education Research*, 23(3), 300–310.
- Appleton, J.J., Christenson, S.L. & Furlong, M.J. (2008). Student engagement with school: Critical conceptual and methodological issues of the construct. *Psychology in the Schools*, 45, 369–386. doi: 10.1002/pits.20303
- Arriaga Sanz, C. & Madariaga Orbea, J.M. (2014). Is the perception of music related to musical motivation in school? *Music Education Research*, 16(4), 375–386.
- Bailey, B.A. & Davidson, J.W. (2005). Effects of group singing and performance for marginalized and middle-class singers. *Psychology of Music*, 33(3), 269–303.
- Bandura, A., Freeman, W.H. & Lightsey, R. (1999). Self-efficacy: The exercise of control.
- Bates, B. (2019). *Learning Theories Simplified: ... and how to apply them to teaching*. Sage.
- Bautista, A., Yeung, J., McLaren, M.L. & Ilari, B. (2022). Music in early childhood teacher education: Raising awareness of a worrisome reality and proposing strategies to move forward. *Arts Education Policy Review*, 1–11.
- Bohnert, A., Fredricks, A.J. & Randall, E. (2010). Capturing unique dimensions of youth organized activity involvement: Theoretical and methodological considerations. *Review of Educational Research*, 80, 576–610. doi:10.3102/0034654310364533
- Bolduc, J. (2008). The effects of music instruction on emergent literacy capacities among preschool children: A literature review. *Early Childhood Research & Practice*, 10(1), n1.
- Bolduc, J., Gosselin, N., Chevrette, T. & Peretz, I. (2021). The impact of music training on inhibition control, phonological processing, and motor skills in kindergarteners: A randomized control trial. *Early Child Development and Care*, 191(12), 1886–1895.
- Bond, V.L. (2012). Music's representation in early childhood education journals: A literature review. *Update: Applications of Research in Music Education*, 31(1), 34–43.
- Bonneville-Roussy, A. & Bouffard, T. (2015). When quantity is not enough: Disentangling the roles of practice time, self-regulation and deliberate practice in musical achievement. *Psychology of Music*, 43(5), 686–704.

- Bonneville-Roussy, A., Hruska, E. & Trower, H. (2020). Teaching music to support students: How autonomy-supportive music teachers increase students' well-being. *Journal of Research in Music Education*, 68(1), 97–119.
- Brophy, J. (2004). *Motivating Students to Learn*. Routledge.
- Byo, J.L. & Sims, W.L. (2015). Classroom management in music education. In E. Emmer, & E.J. Sabornie (Eds.), *Handbook of Classroom Management*, 220–238. Routledge.
- Carr, M. (2001). *Assessment in Early Childhood Settings: Learning stories*. London: Paul Chapman Publishing.
- Charisi, V., Liem, C.C. & Gomez, E. (2018). Novelty-based cognitive processes in unstructured music-making settings in early childhood. In *2018 Joint IEEE 8th International Conference on Development and Learning and Epigenetic Robotics (ICDL-EpiRob)* (pp. 218–223). IEEE.
- Charmaz, K. (2012). The power and potential of grounded theory. *Medical sociology online*, 6(3), 2–15.
- Chin, T. & Rickard, N.S. (2012). The music USE (MUSE) questionnaire: An instrument to measure engagement in music. *Music Perception*, 29(4), 429–446.
- Creswell, J.W. (2012). *Educational Research: Planning conducting and evaluating quantitative and qualitative research*. Pearson.
- Crooke, A.H.D., Smyth, P. & McFerran, K.S. (2016). The psychosocial benefits of school music: Reviewing policy claims. *Journal of Music Research Online*, 7.
- Custodero, L.A. & Fox, D.B. (2006). Looking back, looking forward: A report on early childhood music education in accredited American preschools. *Journal of Research in Music Education*, 54(4), 278–292.
- Custodero, L.A. (2005). Observable indicators of flow experience: A developmental perspective on musical engagement in young children from infancy to school age. *Music Education Research*, 7(2), 185–209.
- Davis, S. (2013). Informal learning processes in an elementary music classroom. *Bulletin of the Council for Research in Music Education*, (198), 23–50.
- Demir, K. (2011). Teachers' intrinsic and extrinsic motivation as predictors of student engagement: An application of self-determination theory. *Education Sciences*, 6(2), 1397–1409.
- Després, J.P. & Dubé, F. (2020, July). The music learner voice: A systematic literature review and framework. In *Frontiers in Education* (Vol. 5, p. 119). Frontiers.
- Eccles, J.S., Wigfield, A. & Schiefele, U. (1998). Motivation to succeed. In W. Damon (Series Ed.), & N. Eisenberg (Vol. Ed.), *Handbook of Child Psychology*, vol. 3: Social, Emotional, and Personality Development (pp. 1017–1095). New York: Wiley.
- Elliot, D.J. (Ed.). (2009). *Praxial Music Education: Reflections and dialogues*. Oxford University Press.
- Elliott, D.J. & Silverman, M. (2012). Why music matters: Philosophical and cultural foundations. In *Music, Health and Wellbeing*, 25–38. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199586974.003.0003>
- Evans, P. & Bonneville-Roussy, A. (2016). Self-determined motivation for practice in university music students. *Psychology of Music*, 44(5), 1095–1110.

- Evans, P. (2015). Self-determination theory: An approach to motivation in music education. *Musicae Scientiae*, 19(1), 65–83. <https://doi.org/10.1177/1029864914568044>
- Evans, P., McPherson, G.E. & Davidson, J.W. (2013). The role of psychological needs in ceasing music and music learning activities. *Psychology of Music*, 41(5), 600–619.
- Ewe, L.P. (2019). ADHD symptoms and the teacher–student relationship: A systematic literature review. *Emotional and Behavioural Difficulties*, 24(2), 136–155.
- Fallin, J.R. & Tower, M.G. (2014). *Using Music to Enhance Student Learning: A practical guide for elementary classroom teachers*. Routledge.
- Finn, J.D. & Zimmer, K.S. (2012). Student engagement: What is it? Why does it matter? In S.L. Christenson, A.L. Reschly, & C. Wylie (Eds.), *Handbook of Research on Student Engagement* (pp. 97–132). New York, NY: Springer.
- Finnigan, E. & Starr, E. (2010). Increasing social responsiveness in a child with autism. *Autism*, 14, 321–348. doi: 10.1177/1362361309357747
- Fredricks, J.A. & McColskey, W. (2012). The measurement of student engagement: A comparative analysis of various methods and student self-report instruments. In S.L. Christenson, A.L. Reschly, & C. Wylie (Eds.), *Handbook of Research on Student Engagement* (pp. 763–782). New York, NY: Springer.
- Fredricks, J.A., Filsecker, M. & Lawson, M.A. (2016a). Student engagement, context, and adjustment: Addressing definitional, measurement, and methodological issues. *Learning and Instruction*, 43, 1–4.
- Fredricks, J.A., Wang, M.T., Linn, J.S., Hofkens, T.L., Sung, H., Parr, A. & Allerton, J. (2016b). Using qualitative methods to develop a survey measure of math and science engagement. *Learning and Instruction*, 43, 5–15.
- Fredricks, J.A. (2011). Engagement in school and out-of-school contexts: A multidimensional view of engagement. *Theory into Practice*, 50(4), 327–335.
- Fredricks, J.A., Blumenfeld, P.C. & Paris, A.H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74, 59–109. doi: 10.3102/00346543074001059
- Furrer, C. & Skinner, E. (2003). Sense of relatedness as a factor in children’s academic engagement and performance. *Journal of Educational Psychology*, 95, 148–162.
- Gillet, N., Vallerand, R.J. & Lafrenière, M.A.K. (2012). Intrinsic and extrinsic school motivation as a function of age: The mediating role of autonomy support. *Social Psychology of Education*, 15(1), 77–95.
- Glanville, J.L. & Wildhagen, T. (2007). The measurement of school engagement: Assessing dimensionality and measurement invariance across race and ethnicity. *Educational and Psychological Measurement*, 67(6), 1019–1041.
- Gordon, E. (1967). The musical aptitude profile. *Music Educators Journal*, 53(6), 52–54.
- Grandena, E.P. & Machfauzia, A.N. (2019). Beatbox for teaching in 21st century music education. In *21st Century Innovation in Music Education* (pp. 105–112). Routledge.
- Green, L. (2008). Music, informal learning and the school: A new classroom pedagogy. *British Journal of Music Education*, 26(2), 225–227.
- Green, L. (2017). *Music, Informal Learning and the School: A new classroom pedagogy*. Routledge.

- Guhn, M., Emerson, S.D. & Gouzouasis, P. (2020). A population-level analysis of associations between school music participation and academic achievement. *Journal of Educational Psychology*, 112(2), 308.
- Gustavson, D.E., Friedman, N.P., Stallings, M.C., Reynolds, C.A., Coon, H., Corley, R.P., Hewitt, J.K. & Gordon, R.L. (2021). Musical instrument engagement in adolescence predicts verbal ability 4 years later: A twin and adoption study. *Developmental Psychology*, 57(11), 1943.
- Hallam, S. (2017). The impact of making music on aural perception and language skills: A research synthesis. *London Review of Education*, 15(3), 388–406.
- Hallam, S. & Rogers, K. (2016). The impact of instrumental music learning on attainment at age 16: A pilot study. *British Journal of Music Education*, 33(3), 247–261.
- Halliday, S.D., Calkins, E. & Leerkes, M. (2018). Measuring preschool learning engagement in the laboratory. *Journal of Experimental Child Psychology*, 167, 93–116.
- Harper, S.R. & Quaye, S.J. (2009). Beyond sameness, with engagement and outcomes for all. In S.R. Harper, & S.J. Quaye (Eds.), *Student Engagement in Higher Education* (pp. 1–15). New York and London: Routledge.
- Harwood, E. & Marsh, K. (2012). Children's ways of learning inside and outside the classroom. In G. McPherson, & G. Welch (Eds.), *The Oxford Handbook of Music Education* (pp. 322–340). New York, NY: Oxford University Press.
- Hennessy, S. (2000). Overcoming the red-feeling: The development of confidence to teach music in primary school amongst student teachers. *British Journal of Music Education*, 17(2), 183–196.
- Herrera, D., Matos, L., Gargurevich, R., Lira, B. & Valenzuela, R. (2021). Context matters: Teaching styles and basic psychological needs predicting flourishing and perfectionism in university music students. *Frontiers in Psychology*, 12, 438.
- Hietanen, L., Sepp, A. & Ruismäki, H. (2020). Examining opportunities for children to participate in formal early childhood music education. *Education in the North*, 27(1), 21–38.
- Hinnersmann, P., Hoier, K. & Dutke, S. (2020). Executing learning activities and autonomy-supportive instructions enhance autonomous motivation. *Frontiers in Psychology*, 11, 2109.
- Holden, H. & Button, S. (2006). The teaching of music in the primary school by the non-music specialist. *British Journal of Music Education*, 23(1), 23–38.
- Holland, D. (2015). A constructivist approach for opening minds to sound-based music. *Journal of Music, Technology & Education*, 8(1), 23–39.
- Hospel, V. & Galand, B. (2016). Are both classroom autonomy support and structure equally important for students' engagement? A multilevel analysis. *Learning and Instruction*, 41, 1–10.
- Issaka, A. & Hopkins, L. (2017). Engagement with education: Music education in a paediatric hospital. *International Journal of Educational Research*, 83, 142–153.
- Jaquiss, V. & Paterson, D. (2017). *Addressing Special Educational Needs and Disability in the Curriculum: Music*. Routledge.
- Jeanneret, N. (2010). Musical Futures in Victoria. *Australian Journal of Music Education*, 2, 148–164.

Jimenez, A.P.M. (2018, October). Game co-creation with young music students: A pedagogic approach to promote creativity and engagement. In *European Conference on Games Based Learning* (pp. 792–799). Academic Conferences International Limited.

Johnson, C.M. & Memmott, J.E. (2006). Examination of relationships between participation in school music programs of differing quality and standardized test results. *Journal of Research in Music Education*, 54(4), 293–307.

Jones, B.D. & Parkes, K.A. (2010). The motivation of undergraduate music students: The impact of identification and talent beliefs on choosing a career in music education. *Journal of Music Teacher Education*, 19(2), 41–56.

Jordan-DeCarbo, J. (1997). Sound-to-Symbol Approach to Learning Music. *Music Educators Journal*, 84(2), 34–54. doi.org/10.2307/3399067

Kangas, M. (2010). Creative and playful learning: Learning through game co-creation and games in playful learning environment. *Thinking Skills and Creativity*, 5(1), 1–15. doi: 10.1016/j.tsc.2009.11.001

Kikas, E., Timoštšuk, I. (2016). Student teachers' knowledge about children with ADHD and depression and its relations to emotions. *Emotional and Behavioural Difficulties*, 21(2), 190–204. DOI: 10.1080/13632752.2015.1069086

Koopman, C. (1998). Music education: Aesthetic or 'praxial'? *Journal of Aesthetic Education*, 32(3), 1–17.

Koops, L.H. (2017). The enjoyment cycle: A phenomenology of musical enjoyment of 4- to 7-year-olds during musical play. *Journal of Research in Music Education*, 65(3), 360–380.

Kratus, J. (1990). Structuring the music curriculum for creative learning. *Music Educators Journal*, 76(9), 33. <https://doi-org.ezproxy.tlu.ee/10.2307/3401075>

Krause, K.L. (2005). *Understanding and Promoting Student Engagement in University Learning Communities*: Paper presented as keynote address: Engaged, Inert or Otherwise Occupied, 21–22.

Kreutz, G. & Feldhaus, M. (2020). Does music help children grow up? Parental views from a longitudinal panel study. *Musicae Scientiae*, 24(2), 139–154.

Krull, E. (2001). *Pedagoogilise psühholoogia käsiraamat* [Handbook of Educational Psychology]. Tartu: TÜ kirjastus (in Estonian).

Kupers, E., van Dijk, M., van Geert, P. & McPherson, G.E. (2015). A mixed-methods approach to studying co-regulation of student autonomy through teacher–student interactions in music lessons. *Psychology of Music*, 43(3), 333–358.

Ladd, G.W. & Dinella, L.M. (2009). Continuity and change in early school engagement: Predictive of children's achievement trajectories from first to eighth grade? *Journal of Educational Psychology*, 101, 190–206.

Laevers, F. (2006). *The leuven involvement scale for young children LIS-YC*. Centre for Experiential Education in collaboration with the Katholiek Pedagogisch Centrum (the Netherlands).

Laevers, F. (2015). *Making Care and Education More Effective through Wellbeing and Involvement: An introduction to experiential education*. Research Centre for Experiential Education; University of Leuven: Leuven, Belgium.

- Lagerlöf, P. & Wallerstedt, C. (2019). 'I don't even dare to do it': Problematizing the image of the competent and musical child. *Music Education Research*, 21(1), 86–98.
- Lagerlöf, P. (2016). *Musical Play: Children interacting with and around music technology*. Gothenburg Studies in Educational Sciences, 385. Göteborg, Sweden: Acta Universitatis Gothoburgensis.
- Lawson, M.A. & Lawson, H.A. (2013). New conceptual frameworks for student engagement research, policy, and practice. *Review of Educational Research*, 83(3), 432–479.
- Lin, Y. S. (2011). Fostering creativity through education—a conceptual framework of creative pedagogy. *Creative Education*, 2(3), 149–155. doi: 10.4236/ce.2011.23021
- Lowe, G. (2011). Class music learning activities: Do students find them important, interesting and useful? *Research Studies in Music Education*, 33(2), 143–159. <https://doi.org/10.1177/1321103X11422768>
- Lowe, G.M., Lummis, G.W. & Morris, J.E. (2017). Pre-service primary teachers' experiences and self-efficacy to teach music: Are they ready? *Issues in Educational Research*, 27, 314–329.
- Major, A.E. & Cottle, M. (2010). Learning and teaching through talk: Music composing in the classroom with children aged six to seven years. *British Journal of Music Education*, 27(3), 289–304.
- Marin, M. (2009). Effects of early musical training on musical and linguistic syntactic abilities. *Annals of the New York Academy of Sciences*, 1169(1), 187–190.
- Marin, M.M. & Bhattacharya, J. (2013). Getting into the musical zone: Trait emotional intelligence and amount of practice predict flow in pianists. *Frontiers in Psychology*, 4, 853.
- Marsh, K. (2012). "The beat will make you be courage": The role of a secondary school music program in supporting young refugees and newly arrived immigrants in Australia. *Research Studies in Music Education*, 34(2), 93–111.
- Marsh, K. & Dieckmann, S. (2017). Contributions of playground singing games to the social inclusion of refugee and newly arrived immigrant children in Australia. *International Journal of Primary, Elementary and Early Years Education*, 45(6), 710–719. <https://doi.org/10.1080/03004279.2017.1347128>
- Martin, A.J., Mansour, M., Anderson, M., Gibson, R., Liem, G.A. & Sudmalis, D. (2013). The role of arts participation in students' academic and nonacademic outcomes: A longitudinal study of school, home, and community factors. *Journal of Educational Psychology*, 105(3), 709.
- Maslach, C., Jackson, S.E. & Leiter, M.P. (1997). *Maslach Burnout Inventory*. Scarecrow Education.
- McFerran, K.S., Crooke, A.H.D. & Bolger, L. (2017). Promoting engagement in school through tailored music programs. *International Journal of Education & the Arts*, 18(3).
- McPherson, G. & Miksza, E.P. (2017). Self-regulated learning in music practice and performance. In *Handbook of Self-regulation of Learning and Performance*. Routledge. doi.10.4324/9781315697048
- McPherson, G.E. & O'Neill, S.A. (2010). Students' motivation to study music as compared to other school subjects: A comparison of eight countries. *Research Studies in Music Education*, 32(2), 101–137. <https://doi.org/10.1177/1321103X10384202>

- McPherson, G.E. & Renwick, J.M. (2001). A longitudinal study of self-regulation in children's musical practice. *Music Education Research*, 3(2), 169–186.
- Middleton, J.A. (1995). A study of intrinsic motivation in the mathematics classroom: A personal constructs approach. *Journal for Research in Mathematics Education*, 26, 254–279.
- Miranda, M.L. (2004). The implications of developmentally appropriate practice for the kindergarten general music classroom. *Journal of Research in Music Education*, 52(1), 43–63.
- Mitchell, M. (1993). Situational interest: Its multifaceted structure in the secondary school mathematics classroom. *Journal of Educational Psychology*, 85(3), 424.
- Mithen, S. (2009). The music instinct. *Annals of the New York Academy of Sciences*, 1169(1), 3–12.
- Mõistlik, M. & Rüütel, E. (2011). Music lessons as a source for well-being and lifelong involvement with music. In *Materials of The International Conference "Leading Music Education"*. <https://ir.lib.uwo.ca/lme/May29/Program/3/>
- Mõistlik, M. & Selke, T. (2011). Assessment of participation or musicality: Pilot study among Estonian music teachers. *Problems of Education in the 21st Century*, 30, 61–73.
- Newmann, F.M. (1992). *Student Engagement and Achievement in American Secondary Schools*. Teachers College Press, 1234 Amsterdam Avenue, New York, NY 10027.
- Nikali, E., Juvonen, A. & Ruokonen, I. (2021). Developing multidisciplinary studies of music in primary teacher education-educational design research results from the first cycle. *Problems in Music Pedagogy*, 20(1), 71–97.
- Nyland, B. & Acker, A. (2012). Young children's musical explorations: The potential of using Learning Stories for recording, planning and assessing musical experiences in a preschool setting. *International Journal of Music Education*, 30(4), 328–340.
- O'Neill, S.A. (2005). Youth music engagement in diverse contexts. In J.L. Mahoney, R.W. Larson, & J.S. Eccles (Eds.), *Organized Activities as Contexts of Development: Extracurricular activities, after-school and community programs* (pp. 255–273). Lawrence Erlbaum Associates Publishers.
- O'Neill, S.A. (2012). Becoming a music learner: Towards a theory of transformative music engagement. *The Oxford Handbook of Music Education*, 1, 163–186.
- Olsen, K.N., Dean, R.T. & Stevens, C.J. (2014). A continuous measure of musical engagement contributes to prediction of perceived arousal and valence. *Psychomusicology: Music, mind, and brain*, 24(2), 147–156. <https://doi.org/10.1037/pmu0000044>
- O'Neill, S.A. & McPherson, G.E. (2002). 'Motivation'. In R. Parncutt, & G.E. McPherson (Eds.), *The Science and Psychology of Music Performance: Creative strategies for teaching and learning* (pp. 31–46). New York: Oxford University Press.
- Pantev, C., Lappe, C., Herholz, S. & Trainor, L. (2009). Auditory-somatosensory integration and cortical plasticity in musical training. *Annals of the New York Academy of Sciences*, 1169(1), 143–150.
- Patrick, B.C., Hisley, J. & Kempner, T. (2000). "What's everybody so excited about?": The effects of teacher enthusiasm on student intrinsic motivation and vitality. *The Journal of Experimental Education*, 68(3), 217–236.

Päts, R. (1989). *Muusikaline kasvatus üldhariduskoolis 1. Osa* [Music Education in General Education School, part 1]. Tallinn: Valgus (in Estonian).

Pawłusz, E. (2017). The Estonian song celebration (Laulupidu) as an instrument of language policy. *Journal of Baltic Studies*, 48(2), 251–271.

Poom-Valickis, K., Jõgi, A.L., Timoštšuk, I. & Oja, A. (2016). Õpetajate juhendamispätki seosed õpilaste kaasatusega õppimise I ja III kooliastme tundides [Relationships of teachers' instructional practice with students' involvement in learning in the first and third grade classes]. *Eesti Haridusteaduste Ajakiri*, 4(1), 258 (in Estonian).

Puksand, H., Lepmann, T., Henno, I., Lindemann, K., Täht, K., Lorenz, B. & Silm, G. (2019). Eesti 15-aastaste õpilaste teadmised ja oskused funktsionaalses lugemises, matemaatikas ja loodusteadustes. *PISA 2018–Eesti tulemused* [Estonian 15-year-old Students' Knowledge and Skills in Functional Reading, Mathematics and Natural Sciences: PISA 2018 – Estonian results] (in Estonian).

Qin, X., Zhang, Y., Gu, P. & Lin, L. (2020, August). The impact of cooperative learning strategies on pupils' learning engagement in the smart classroom environment. In *International Conference on Blended Learning* (pp. 365–377). Springer, Cham.

Räis, M.L., Kallaste, E., Sandre, S.-L. (2016). *Haridusliku erivajadusega õpilaste kaasava hariduskorralduse ja sellega seotud meetmete tõhusus* [Effectiveness of inclusive educational organization and related measures for students with special educational needs]. Uuringu lõppraport (in Estonian).

Raudsepp, I. & Vikat, M. (2012). The phenomenon of Riho Päts as a developer of learning design in Estonia. In *Procedia – Social and Behavior Sciences: The 5th intercultural arts education conference: Design learning* (pp. 359–369). Helsinki: Helsinki University.

Reeve, J. (2012). A self-determination theory perspective on student engagement. In S.L. Christenson, A.L. Reschly, & C. Wylie (Eds.), *Handbook of Research on Student Engagement* (pp. 149–172). Springer Science + Business Media. https://doi.org/10.1007/978-1-4614-2018-7_7

Reeve, J. (2013). How students create motivationally supportive learning environments for themselves: The concept of agentic engagement. *Journal of Educational Psychology*, 105(3), 579.

Reeve, J. & Lee, W. (2014). Students' classroom engagement produces longitudinal changes in classroom motivation. *Journal of Educational Psychology*, 106(2), 527.

Reeve, J., & Tseng, C. M. (2011). Agency as a fourth aspect of students' engagement during learning activities. *Contemporary Educational Psychology*, 36(4), 257–267.

Reeve, J., Deci, E.L. & Ryan, R.M. (2004). Self-determination theory: A dialectical framework for understanding socio-cultural influences on student motivation. *Big Theories Revisited*, 4, 31–60.

Reeve, J., Jang, H., Carrell, D., Jeon, S. & Barch, J. (2004). Enhancing students' engagement by increasing teachers' autonomy support. *Motivation and Emotion*, 28, 147–169.

Reeve, J., Jang, H.R., Shin, S.H., Ahn, J.S., Matos, L. & Gargurevich, R. (2021). When students show some initiative: Two experiments on the benefits of greater agentic engagement. *Learning and Instruction*, 101564.

- Richmond, J., McLachlan, N.M., Ainley, M. & Osborne, M. (2016). Engagement and skill development through an innovative classroom music program. *International Journal of Music Education*, 34(2), 143–160.
- Roberts, J. C. (2015). Situational interest of fourth-grade children in music at school. *Journal of Research in Music Education*, 63(2), 180–197.
- Román-Caballero, R., Vadillo, M. A., Trainor, L. J., & Lupiáñez, J. (2022). Please don't stop the music: A meta-analysis of the cognitive and academic benefits of instrumental musical training in childhood and adolescence. *Educational Research Review*, 100436.
- Ruddock, E. & Leong, S. (2005). 'I am unmusical!' The verdict of self-judgement. *International Journal of Music Education*, 23(1), 9–22.
- Ruokonen, I., Tervaniemi, M. & Reunamo, J. (2021). The significance of music in early childhood education and care of toddlers in Finland: An extensive observational study. *Music Education Research*, 23(5), 634–646.
- Ruth, N. & Müllensiefen, D. (2021). Survival of musical activities. When do young people stop making music? *PloS one*, 16(11), e0259105.
- Ryan, R.M. & Deci, E.L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25, 54–67.
- Salmela-Aro, K. & Upadaya, K. (2012). The Schoolwork engagement inventory: Energy, dedication, and absorption (EDA). *European Journal of Psychological Assessment*, 28(1), 60–67. <https://doi.org/10.1027/1015-5759/a000091>
- Salvador, K. (2019). Sustaining the flame: (Re)Igniting joy in teaching music. *Music Educators Journal*, 106(2), 28–36. <https://doi-org.ezproxy.tlu.ee/10.1177/0027432119873701>
- Scott, S. (2010). A minds-on approach to active learning in general music. *General Music Today*, 24(1), 19–26.
- Shouldice, H.N. (2019). "Everybody has something": One teacher's beliefs about musical ability and their connection to teaching practice and classroom culture. *Research Studies in Music Education*, 41(2), 189–205.
- Simpson, K., Keen, D. & Lamb, J. (2013). The use of music to engage children with autism in a receptive labelling task. *Research in Autism Spectrum Disorders*, 7(12), 1489–1496.
- Skinner, E.A., Kindermann, T.A. & Furrer, C.J. (2009). A motivational perspective on engagement and disaffection: Conceptualization and assessment of children's behavioral and emotional participation in academic activities in the classroom. *Educational and Psychological Measurement*, 69(3), 493–525. <https://doi.org/10.1177/0013164408323233>
- Skinner, E.A. & Pitzer, J.R. (2012). Developmental dynamics of student engagement, coping, and everyday resilience. In *Handbook of Research on Student Engagement* (pp. 21–44). Springer, Boston, MA.
- Skinner, E.A., Furrer, C., Marchand, G. & Kindermann, T. (2008). Engagement and disaffection in the classroom: Part of a larger motivational dynamic? *Journal of Educational Psychology*, 100, 765–781.
- Slater, J., Tierney, A. & Kraus, N. (2013). At-risk elementary school children with one year of classroom music instruction are better at keeping a beat. *PLoS One*, 8(10), e77250.

- Slaughter, T. (2009). Creating a successful academic climate for urban students. *Techniques: Connecting Education and Careers* (J1), 84(1), 16–19.
- Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. *Journal of Business Research*, 104, 333–339.
- Southgate, D.E. & Roscigno, V.J. (2009). The impact of music on childhood and adolescent achievement. *Social Science Quarterly*, 90(1), 4–21.
- Stefanou, C.R., Perencevich, K.C., DiCintio, M. & Turner, J. C. (2004). Supporting autonomy in the classroom: Ways teachers encourage student decision making and ownership. *Educational Psychologist*, 39(2), 97–110.
- Stephens, C. E. (2008). Spontaneous imitation by children with autism during a repetitive musical play routine. *Autism*, 12(6), 645–671.
- StGeorge, J., Holbrook, A. & Cantwell, R. (2014). Affinity for music: A study of the role of emotion in musical instrument learning. *International Journal of Music Education*, 32(3), 264–277.
- Stroet, K., Opdenakker, M.-C. & Minnaert, A. (2013). Effects of need supportive teaching on early adolescents' motivation and engagement: A review of the literature. *Educational Research Review*, 9(453), 65–87.
- Suthers, L. & Niland, A. (2007). An exploration of young children's engagement with music experiences. In *Listen to Their Voices: Research and practice in early childhood music* (pp. 19–32). Chicago.
- Synder, D.W. (1998). Classroom management for student teachers. *Music Educators Journal*, 84(4), 37. <https://doi-org.ezproxy.tlu.ee/10.2307/3399115>
- Taimalu, M., Uibu, K., Luik, P. & Leijen, Ä. (2019). *Õpetajad ja koolijuhid elukestvate õppijatena*. OECD rahvusvahelise õpetamise ja õppimise uuringu TALIS 2018 uuringu tulemused, 1. osa. 1., 1–154 [Teachers and School Leaders as Lifelong Learners. Findings from the OECD International Survey of Teaching and Learning TALIS 2018, Part 1, pp. 1–154] (in Estonian).
- Thompson, G.A., McFerran, K.S. & Gold, C. (2014). Family-centred music therapy to promote social engagement in young children with severe autism spectrum disorder: A randomized controlled study. *Child: Care, health and development*, 40(6), 840–852.
- Tierney, A., Krizman, J., Skoe, E., Johnston, K. & Kraus, N. (2013). High school music classes enhance the neural processing of speech. *Frontiers in Psychology*, 4, 855.
- Timoštšuk, I. & Jaanila, S. (2015). Primary teachers' instructional behavior as related to students' engagement in science learning. In *Procedia - Social and Behavioral Sciences*, 197, 1597–1602. <https://doi-org.ezproxy.tlu.ee/10.1016/j.sbspro.2015.07.117>
- Timoštšuk, I. & Näkk, A. (2020). Balancing teaching style in the engagement of primary students in science lessons: The examples of four teachers. *International Journal of Primary, Elementary and Early Years Education*, 48(8), 960–971.
- Timoštšuk, I., Ugaste, A. & Mets-Alunurm, K. (2018). Teachers' learning experiences in the context of neoliberal educational change. *Estonian Journal of Education*, 6(1), 77.
- Torraco, R.J. (2005). Writing integrative literature reviews: Guidelines and examples. *Human Resource Development Review*, 4(3), 356–367.
- Toshalis, E. & Nakkula, M.J. (2012). *Motivation, Engagement, and Student Voice*. Boston, MA: Jobs for the Future.

Vaiouli, P. & Ogle, L. (2015). Music strategies to promote engagement and academic growth of young children with ASD in the inclusive classroom. *Young Exceptional Children*, 18(2), 19–28.

Vaiouli, P. (2014). *Music, Engagement, and Early Literacy in Inclusive Early Childhood Settings*: Doctoral dissertation. Indiana University.

Valle, C., Andrade, H., Palma, M. & Hefferen, J. (2016). Applications of peer assessment and self-assessment in music. *Music Educators Journal*, 102(4), 41–49.

Van Lier, L. (2010). The ecology of language learning: Practice to theory, theory to practice. In *Procedia-Social and Behavioral Sciences*, 3, 2–6.

Vasil, M. (2019). Integrating popular music and informal music learning practices: A multiple case study of secondary school music teachers enacting change in music education. *International Journal of Music Education*, 37(2), 298–310.

Vazou, S., Klesel, B., Lakes, K.D. & Smiley, A. (2020). Rhythmic physical activity intervention: Exploring feasibility and effectiveness in improving motor and executive function skills in children. *Frontiers in Psychology*, 11, 2392.

Veiga, F.H., Reeve, J., Wentzel, K. & Robu, V. (2014). Assessing students' engagement: A review of instruments with psychometric qualities. In F.H. Veiga (Ed.), *Perspectives from Psychology and Education: First International Conference of Student Engagement at School* (pp. 38–57). Lisbon, Portugal: Instituto do Educação da Universidade de Lisboa.

Veloso, A.L. & Mota, G. (2021). Music learning, engagement, and personal growth: Child perspectives on a music workshop developed in a Portuguese state school. *Music Education Research*, 23(4), 416–429.

Vestad, I.L. (2014). Children's subject positions in discourses of music in everyday life: Rethinking conceptions of the child in and for music education. *Action, Criticism & Theory for Music Education*, 13(1), 248–278.

Virtanen, T.E., Räikkönen, E., Engels, M.C., Vasalampi, K. & Lerkkanen, M.-K. (2021). Student engagement, truancy, and cynicism: A longitudinal study from primary school to upper secondary education. *Learning and Individual Differences*, 86. <https://doi-org.ezproxy.tlu.ee/10.1016/j.lindif.2021.101972>

Wang, A. (2021). Models of student engagement in music education classroom in higher education. *Frontiers in Psychology*, 3392.

Wang, Z., Bergin, C. & Bergin, D.A. (2014). Measuring engagement in fourth to twelfth grade classrooms: The classroom engagement inventory. *School Psychology Quarterly*, 29(4), 517.

Webster, M. (2014). *Merriam Webster Online*.

Welch, G.F. & Henley, J. (2014). Addressing the challenges of teaching music by generalist primary school teachers. *Revista da ABEM*, 22(32), 12–38.

Welch, G.F. & McPherson, G.E. (2018). Commentary: Music education and the role of music in people's lives. In G.E. MacPherson, & G.F. Welch (Eds.), *Music and Music Education in People's Lives: An Oxford handbook of music education*, Vol. 1. Oxford University Press.

Wigfield, A., Byrnes, J.P. & Eccles, J.S. (2006). Development during early and middle adolescence. In P.A. Alexander, & P.H. Winne (Eds.), *Handbook of Educational Psychology* (pp. 87–113). Lawrence Erlbaum Associates Publishers.

Wigfield, A., Eccles, J.S., Yoon, K.S., Harold, R.D., Arbretton, A.J.A., Freedman-Doan, C. & Blumenfeld, P.C. (1997). Changes in children's competence beliefs and subjective task values across the elementary school years: A 3-year study. *Journal of Educational Psychology*, 89, 451–469.

Williams, K.E. (2018). Moving to the beat: Using music, rhythm, and movement to enhance self-regulation in early childhood classrooms. *International Journal of Early Childhood*, 50(1), 85–100.

Williams, K.E., Barrett, M.S., Welch, G.F., Abad, V. & Broughton, M. (2015). Associations between early shared music activities in the home and later child outcomes: Findings from the longitudinal study of Australian children. *Early Childhood Research Quarterly*, 31, 113–124.

Wilson, E. (2019). *"It's Music and We Came to Play Instruments": Teaching for engagement in classroom music*: Doctoral dissertation.

Wright, R. (2011). Musical Futures: A new approach to music education. *Canadian Music Educator*, winter, 19–21.

Young, S. (2003). *Music with the Under-fours* [electronic resource]. RoutledgeFalmer.

Young, S. (2016). Early childhood music education research: An overview. *Research Studies in Music Education*, 38(1), 9–21.

Received 12.08.2022

Accepted 19.08.2022

ELEMENTARY INSTRUCTION CLASSROOM TEACHER STUDENTS' EXPERIENCES OF ART AND SKILL SUBJECTS AT SCHOOL AND IN TEACHER EDUCATION

Minna MÄKINEN & Antti JUVONEN

*University of Eastern Finland
email: antti.juvonen@uef.fi*

Abstract

This research focuses on elementary classroom teacher students' (N=10) experiences of art and skill subjects at school and in teacher education. The data was collected by narrative accounts of students' experiences of music, visual arts, physical education, and crafts. Both positive and negative experiences were found from these subjects. Every respondent had negative experiences in some of the subjects. At worst, the experiences were so traumatizing that respondents suffered from the consequences even after twenty years. This shows the importance of the teacher's behaviour in evaluation and feedback at school. Young pupils are at a sensitive developmental stage when in elementary school and at the high school level, as students' self-conception is still building. The art and skill subjects may cause students to feel more vulnerable than other subjects, because everyone can see or hear immediately when something goes wrong. Teacher education should be developed in a direction where future teachers are emotionally sensitive and discrete to avoid traumatizing their pupils.

Keywords: *Art and skill subjects, experiences, memories, attitudes*

Background

Finland has succeeded quite well in international comparisons of school achievements (Programme for International Students Assessment PISA). Still, there is a lot of malaise in Finnish schools including not enjoying being at school, marginalization and even suicides. Mostly, people are too dissatisfied with life and experiences of failure and misfortune. A valuable life has stalled as disciples feel aimless and grieve. It is important that a child can, already at an early stage, gain positive experiences of themselves through acceptance and success. It would be important to teach students to acknowledge their own strengths, dignity, and their specialities. This can take place at home and school through sensible and wise growth and education together with the constructive activities with peers.

Our society is going through a critical period. The change in age structure, digitalization and strengthening of multiculturalism are phenomena of this age. Similarly, society is also differentiating, and inequality is increasing. The well-being, sharing, participation and health of the population polarize the population (Ministry of Education, 2014). Searching for experiences is typical for our time. Commercialism and selfishness describe the spirit of current times when everyone wants to own everything more and more (Pulkkinen & Kanervio, 2014).

In the field of education, competition between schools may further strengthen marginalization and polarization of students and communities. Also, the gap between the educated and uneducated population is growing, leading to a division of society into two parts (Kyllönen, 2014). There are more and more families pushing exceptionalism on their children and burdening them with different hobbies and goals of material well-being. At the same time, there are more and more families who do not take good enough care of their children, who may drift toward a marginal way of life. When an individual fulfils oneself through art and skill hobbies, it protects them better from withdrawal (Allardt, 1976). Art and skill subjects with their experiences like development of skills, collaboration, succeeding, enjoyment, regularity, relationships with adults, discussions and supervision can be seen as protective factors. Self-esteem is strengthened and the feeling of one's ability to influence different issues grows along with successes (Rönkä, 2014).

According to PISA's school enjoyment research, the situation in Finland is not vaunted, although Finland's school system is shown in a positive light from the point of view of learning results. Finland has participated in PISA research since the year 2000 and has been at the top or near the top of learning assessment tests. In 2009, the level of results began decreasing and by 2013 the results clearly had dropped. PISA-research evaluates learning, and it is used in developing educational systems (Kupari et al., 2013). Finns share a worry about the results, which show the need to develop the country's education system. Still, Finland is in the top quarter of the OECD countries and the best of the Scandinavian countries. The opportunities in social and economic structures of society, the growth of the importance of media and globalization have changed the world of young people. This should be taken better into account to include young people's everyday real life as a part of a school's pedagogy. The elementary school system which was created in the 1960s and 1970s needs national-level renovation (Kupari et al., 2013). The school well-being model by Konu and Rimpelä (2002) explores the school and education as a whole, where every part is in connection to each other, and nothing is separate. Especially interesting are self-fulfilment (*being*) and social relationships (*loving*). In fulfilling oneself, the use of creativity and self-esteem strengthening can be seen in the teaching of art and skill subjects. In the area of social relationships, the atmosphere of the school, group dynamics, teacher-pupil relationship, peer relationships and the collaboration between the school and homes are in the centre of promoting well-being.

Well-being from Art and Skill Subjects

The significance of arts and creativity has been gathering more appreciation among Finnish administrative personnel. Already more than ten years ago the government of Matti Vanhanen promoted a creativity strategy to promote the development of

creativity nationally. The working group of the strategy highlighted the significance of creativity in comprehensive well-being. In addition to that, it also imparts versatility to Finnish society's different sectors, everyday life, social life, education, upbringing, working life, communities and so on (Luovuuskertomus, 2004). The working groups of the Creativity-story strategy reported their plans to promote creativity. One sector in the report promoted creativity in education and upbringing, building reserves of strength-centred activities. Education and upbringing should promote the development of power reserves and life-managing skills so that a child and young individual could live a valuable life with others also into adulthood. The working group was concerned about the way some children are raised at home, not enjoying studying at school, the spirit of competition, the culture of increasing haste and the increase of performance pressures at school. Creativity is stifled in these circumstances and causes accumulating problems in the long run (Kolme puheenvuoroa luovuuden edistämisestä, 2005).

Artistic activity has always been a part of human nature. The task of art, the place and the significance have remained, but they have gained new manifestations in new places. Recently, artistic activity has been brought in as a part of problem solving and its positive impact in different connections has been noticed. Social problems cannot always be solved using only artistic actions, but it offers a counter point to rationalist thinking and creates a more versatile idea of many people where diverse usage of the senses is joined together (Bardy, 2007). Society's efforts towards efficiency and strong economic thinking overshadow the value of creativity (Känkänen, 2006). We can also speak about art-based developmental direction which can be seen both in Finland and internationally (Bardy & Känkänen, 2005). Culture and art are seen more strongly as a part of the promotion of humankind's well-being. In the conception of development there has been a pragmatic change, which means that rational reasoning and economic values have proven insufficient in creating the individual and communal creativity and spirit building (Bardy, 2002). Arts education should be strengthened at school to bring in artistic thinking and acting as a bigger part of life skills and all-round education (Bardy, 2007). Arts education teaches how to understand and handle multilevel phenomena, also present in social life, through the arts. The arts are not separated from life; art should be present as a part of everyday life and a natural part of life (Sederholm, 2007). We can even say that thinking through creative activity is a way of existing and living (Karppinen, 2008).

For some children, functional or artistic work can be the only way for them to approach and connect to themselves and their emotional memories. Creative activity offers a metaphoric cover or a symbolic distance to handle issues. In the same connection, we can talk about the birth of free space which includes ambivalence toward interaction, which means aimlessness and handling it through artistic activities. This kind of experience enables exploring one's own emotional movements and understanding one's own story (Heino et al., 2013).

The art and skill subjects bring counterbalance and offer different ways of working compared to core subjects. The pupils may be creative and express themselves more than, for example, in math or language classes. Art and skills subjects also offer a good environment for promoting educational targets and issues which aim at pupils' spiritual growth. The captivating digital world of today is a pleasing environment for children and young people and an instrument for spending time and learning. The

digital world competes for children's interest with activities in the same way as in the art and skill in the art and skill subjects. Chatting face-to-face and doing things together have been transmitted to the virtual world (Pulkkinen & Kanervio, 2014). Art and skill subjects have a lot of potential; they strengthen identity and offer social experiences which create trust and well-being (Liikanen, 2009).

The Well-being Promoting Influences of Art and Skill Subjects

PISA research focuses on mathematical skills, natural sciences, and literacy. It does not measure pupils' well-being, creativity, or artistic development. Because PISA only measures some sectors of school subjects, their significance is secured because Finland wants to remain first in international comparisons. The issues affecting art and skill subjects are difficult to measure. Nevertheless, although the administration promoted creativity and creative activity to a level of high value more than ten years ago, not much was done to promote artistic activity or creativity during that time. In the report of the Ministry of Education's working group, aims to add to the number of arts and skills at school by adding one lesson to the earlier curricula are merely a titular addition. Artistic activity strengthens cultural abilities and creative thinking, which are useful also for creative economic development and promoting Finnish competitiveness. The status of arts education has weakened even though more and more well-being promoting impacts of art and creativity have been explored and understood. The Finnish International Society for Education through Arts (InSEA) underlines protection of Finnish cultural know-how in the law on elementary teaching, prevention of marginalization, development of internationally validated arts education and protecting it, assuring qualified arts teaching, and increasing the number of lessons in art and skill subjects at school (Suomen InSEA ry, 2012).

Juvonen (2008) validates the significance of art and skill subjects for pedagogic well-being. The art and skill subjects can offer solutions to students not enjoying being at school, having low motivation, and experiencing dissatisfaction at school. The school should balance theoretical and practical learning. The art and skill subjects offer experiential learning with emotions, enabling development of theoretic learning processes and greater opportunities to gain feelings of success without strict performance pressure. This keeps motivation high and may make otherwise dull subjects also feel increasingly significant. The art and skill subjects also provide communality and common activities, which lead to a better classroom atmosphere and acceptance of oneself and others. To an individual pupil, creative activity offers a possibility of self-expression and finding one's own abilities, using, and developing them. The art and skill subjects also enable differentiating and learning from pupil's own starting points. The everyday life of school changes and becomes more meaningful with creative activities and may even offer therapeutic experiences in school life (Juvonen 2008).

Possibilities for self-expression and use of imagination are important to pupils. They see the usefulness of art and skill subjects in their free time and for their future. The subjects bring variety to schoolwork and may help some pupils who have difficulties with the core subjects. Similarly, the pupil can gather energy for new challenges. During art and skill subject lessons, a pupil may find new qualities both in themselves and in peers' skills and behaviour. In the lessons new qualities are learned about

friends and the lesson is a place for collaboration. Art and skills activities help in understanding oneself and others and accepting more and greater differences (Tornikoski & Ylämäki, 2009).

Motivation-pedagogy can be used to support pupils' human development and participation in common activities. Similarly, pupils dare to try and survive challenging situations. The pedagogy is based on arousing the conscience, participation, and social creativity. The aim is to make the pupil become enthusiastic in making things with their own hands, practicing skills, being curious and courageous in front of new issues and pushing one's own borders. This helps in developing a skill to meet problems in a creative way, which helps in many sectors of life (Karppinen, 2008) (see Figure 1).

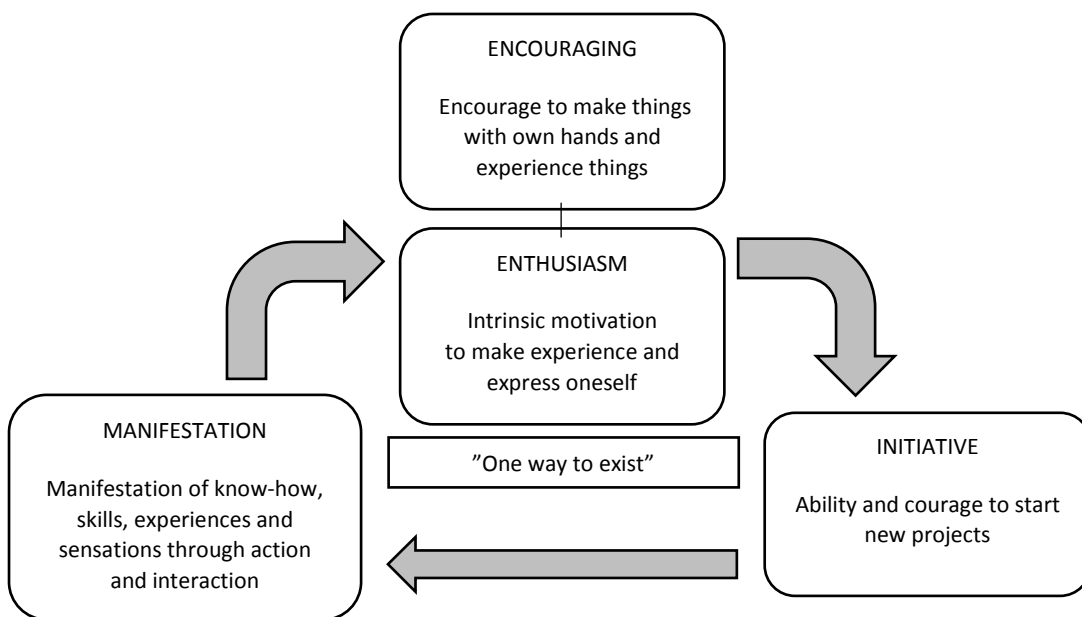


Figure 1. The circle of encouragement in art and skill subjects (Karppinen, 2008, 103)

A. Music

In music, pupils gain versatile experiences of musical activities and partnership in cultural issues. Pupils learn to interpret different significances of music, improve musical skills, and develop a positive relationship with music and music as a hobby. Music promotes comprehensive growth, ability to collaborate with others and skills of expressing oneself. The subject is harmonized through pupils' own targets of interest, themes, other subjects, celebrations, and projects (POPS, 2014).

Music offers pupils a possibility of self-expression, communal experiences, and creativity. School music education may lead to taking music as a hobby and give one a way to enjoy life and become happy (Ruokonen & Grönholm, 2005). Lilja-Viherlampi (2007) sees music education's therapeutic potential. Therapeutic pedagogy starts from the teacher's therapeutic educational attitude, showing pedagogical loving in different situations during music lessons. The teacher sees and recognizes what kind of developmental and educational opportunities music offers. Then it is possible to

support a child's future harmonizing qualities if the child's well-being has caused worries (Lilja-Viherlampi, 2007).

B. Visual art

The aim of visual art education is to guide pupils in exploring and expressing reality through art. In addition to that, the pupils are guided to see and understand the visual culture surrounding them. Learning is experiential, multi-sensual and functional. Pupils are guided to use different instruments, materials, technologies, and ways of expression in their actions. When the pupil produces and interprets pictures, his/her identity grows as well as cultural skills and communality experiences strengthen. Pupils can use their imagination, creativity, and curiosity for experiments in visual arts lessons. A visual art improves critical thinking, encourages social influencing, and offers abilities to act locally (POPS, 2014).

C. Craft

Craft is a multi-material school subject, where pupils learn to manage a whole handicraft process using craft expression, design, and technology. Pupils learn versatile skills and knowledge which they can take advantage of in everyday life. Spatial perceptive skills, sense of touch, motor skills, creativity and skills of designing are developed in crafts. The subject strengthens self-esteem and produces enjoyment. In crafts, pupils can fulfil themselves also communally. In addition to these, it also brings up pupils to become ethical, aware, participating, skilful, self-appreciative and entrepreneurial citizens who have know-how in crafts and willingness to develop craft culture (POPS, 2014).

The primary target is not learning different techniques or skills, but to learn something about oneself, others, culture and possibilities through self-expression and interaction (Karppinen, 2005). Seitamaa-Hakkarainen (2009) discovered that the motives and significances of crafts are connected to the joy of making, creativity and building of new significances, instead of simply making products. Crafts, like all other arts and skills, can have the influence of strengthening school enjoyment. Joint working, arousing and using enthusiasm can make crafts an important source of expression and joy (Karppinen, 2005). Crafts can also produce feelings of empowerment, support human growth and most of all enrich our lives (Karppinen, 2008). Crafts have therapeutic dimensions which will be used in utilizing psychic well-being, preventative mental health work and as a way of designing interventions for the future. Craft is still important as a hobby and in educational work (Pöllänen, 2008). In craft science Pöllänen and Kröger (2005) have discovered that crafts develop life managing skills and can work as a preventer of marginalization.

D. Physical education

Physical education at school aims to promote pupils' comprehensive well-being and build a positive attitude toward one's own body. Positive experiences, physical activity and team working are in the centre of physical education lessons. Physical education supports healthy ways of life and promotes social approval and communality. Pupils get information and experience different forms of exercise. School physical education helps students develop their skills in interaction, enhances responsibility, emotional development and recognizing their own emotions. The aim is to develop pupils' self-

conception through exercise. Physical education offers opportunities to feel joy, participation, and versatile physical activity. (POPS, 2014).

Correctly executed physical education offers pupils positive experiences which lift self-esteem and support psychic well-being. Also, in the subject, students learn to handle negative feelings. The acquired socio-emotional skills can be transported to other sectors of life. Self-conception develops in physical education through trusting in oneself, social relations, and one's own abilities. A positive attitude toward one's own body belongs to self-conception, too. By trying, self-reflection and learning new issues, a pupil increases the experiences of success, learning new things and progressing (Jaakkola, Sääkslahti & Liukkonen, 2009).

The Object, Questions and Acquiring the Data of the Research

This research examines elementary classroom teacher students' (N=10) experiences of art and skill subjects at school and in teacher education and the significance of these experiences in their life and attitudes. The students wrote 3–4-page-long narrative stories about their experiences. They also considered the influence of these experiences on their later attitudes towards these school subjects. The research applies to the field of phenomenological touch, as a study of experiences aims to add to teachers' understanding of the importance of art and skill subjects. The research questions are:

- *What kind of experiences have you had in art and skill subjects during your own school years and in teacher education studies?*
- *How have these experiences influenced your later attitudes toward these subjects?*

The students who participated in this research were 3rd- to 6th-year students from the University of Eastern Finland. The data was collected in spring 2019. The students were asked to try to remember experiences from both their school years and from their teacher education.

Results

We present the results in the same order as these school subjects were presented in the theoretic background of this article. Typical of the memories about art and skill subjects at school is that they are polarized: the respondents have experienced these subjects as either strongly positive or similarly negative, depending on how they assessed themselves as being good or bad in the subject area. The expectancy-value motivation theory explains this so that when the student expects to survive well in the subject and appreciates it, their motivation rises and the results become better, too (compare Suomi, 2019; Mäkinen, 2020). Because art and skills subjects are very personal and emotions, skills and abilities are shown so that they are easy to be compared to the others, it is easy to find a natural explanation for the polarization phenomenon. Especially music and physical education traditionally are subjects where strong emotions and experiences are aroused. In both of these subjects, the skills of others can easily be evaluated, and if the teacher's work is not correct, equal, discreet, and fair, the emotions are often at the surface.

This age-group's (22–25 years old) school years seemingly did not include much digitalization, or it does not show in the memories of art and skill subjects. Actually, the computer applications for these school subjects are brought into use no earlier than today, although they have been available for years. The respondents' memories talk about quite traditional schoolwork with traditional gender models, for example in the subject craft. For many respondents, art and skill subject lessons were the highlight of the whole school day, which inspired and motivated schoolwork on a general level, too (Compare Juvonen, 2008).

A. Music

The results show that there are not many exact memories from elementary-level classes. Memories are more general like, "all art and skill subjects were nice in elementary school". What the participants remember best was singing together when the teacher played a piano accompaniment.

I do not remember anything about the music lessons in the first and second grade. I think that there probably were not specially music lessons at all, maybe we sang in other lessons every now and then. Music in the upper grades was one-sided, playing the recorder, simple drum accompaniments, small presentations, and singing together. I liked to sing together as the teacher accompanied with piano. (1W)

Music lessons were in the music classroom. Music was mostly singing, playing the recorder and the kantele. Later, we played with rhythm instruments and sang karaoke. I remember best the summer opening celebration for which we practiced songs. (2W)

I liked music in elementary school. I am not especially musical, but I liked to sing with the class when the teacher played piano. (5W)

There were many more memories from the music classes in the higher grades, especially about playing different musical instruments. This means that pupils were offered versatile musical experiences and activities (compare POPS, 2014). Singing with the teacher's piano accompaniment was a safe and enjoyable way of participating, which means that music education had also a therapeutic perspective (compare Lilja-Viherlampi, 2007).

Music also raises feelings of uncertainty and unsureness and one's own abilities and skills are often doubted. The experiences from music lessons are often imprinted with a fear that the others in the class would laugh if one failed at playing some musical instrument or singing. There has been a lot of singing in music lessons, which is natural as singing is the basic way of action in music education.

I have never had music as a hobby and now when I should be able to teach it, I am quite uncertain. I can somehow play piano, but for example guitar or drums are out of my skills range. I believe that I can carry out music lessons well for elementary classes, and thanks to university music teaching I am luckily interested in music. During my earlier school days, I never experienced any trauma from music learning, although I remember trying to avoid playing some instruments. For example, I never played the drums

during music lessons simply because I was afraid that the others would laugh at me. (3W)

Playing different instruments has been a nice common activity for some, while for others it has been an obligatory dull grind. One respondent explained that their enthusiasm and interest in music have risen during teacher education. As a whole, it can be seen that teacher education's music studies have left the students with some uncertainty about their own skills, especially in playing multiple musical instruments. In teacher studies, there is a limited number of lessons during which these instruments can be taught.

Studies were fun also in music, as there were good instruments and other mediums for playing (music school). We sang a lot, but we never had singing tests. I remember playing in bands. Through dance I have gained lots of know-how also concerning music (sense of rhythm, elements of music, genres, etc.). These skills have also helped later in other studies. (4W)

I remember playing the metallophone in a school celebration and it left good memories. From high school I remember that we learned the basics of many musical instruments. (5W)

In addition to memories about singing and playing instruments, many respondents wrote about their thoughts of their own musicality and musical abilities. Singing tests were still used during the respondents' school time and there are strong contradictory memories about them. For some respondents, singing tests did not cause any kind of trauma, but for others they caused lifelong damage to their musical self-conception. Many respondents wrote that their musical self-conception either collapsed at once due to singing tests or it faded out little by little due to the teacher's comments. The teacher education's singing tests also caused severe damage and trauma for some respondents. This is an issue that has been identified in earlier research, too (See Juvonen & Anttila, 2007).

High school music was OK, but I have never been musically talented. The lessons were sometimes dull and frustrating. The singing test did not traumatize me, but I think that it was unnecessary as an obligatory activity at school. Luckily, there were only 1–2 obligatory music courses. (1W)

Music at high school was nice and interesting. I liked singing and got interested in guitar playing. In our own classes' music lessons, I was not participating, but I ventured into singing and playing during the voluntary music lessons. (2W)

Music was a subject I imagined I was to be good at, but little by little, maybe in the 4th to 6th grades I noticed that I maybe was not so good. I got the grade 8.5 in the singing test and I compared the result to my friends and noticed that they had got better grades. I remember once practising with one friend to play a drum accompaniment and the teacher commented that the rhythm should not accelerate. Neither of us learned to play without accelerating the rhythm and a more musical pupil got to play the drums and we were given other instruments. Singing tests, I remember from elementary upper classes and in high school: oppressive experiences. But the

most oppressive experience was the singing test in teacher education. There was no accompaniment to lean on to support singing. Trembling from nervousness, the singing went totally poorly, and the rest of the day was spent crying at home. As a result, I could not sing for months, not even at home. Now I sing sometimes, a little when I am alone, but never when someone else could possibly hear me. The singing test totally collapsed my musical self-conception to zero, and surely, I will not sing in a classroom or teach music. Failure in this singing test was the worst humiliation of my life. (6W)

I remember that I felt I was good in music, but in singing I was lousy. Singing tests occurred in elementary school and in 6th grade we had a recorder playing test. The singing test was simply torture but recorder playing I liked because I was good at it. I had a little more difficult song to play for the test than the other pupils, which motivated me even more. I still can play the song "Under the northern star" by heart with the recorder. In upper classes we had a singing test which was torture again, but otherwise we played together which was nice. (7M)

In high school, music courses were merely an obligatory evil which culminated in a singing test. In the test an optional song was sung to the teacher using a microphone. The experience was terrible, but I imagined that this would be the last time I would have to take a singing test. But what happened was that during the university teacher education I had to do a singing in test in the music teacher's office without accompaniment. Certainly, feeling down about myself was not as difficult as it was in high school. (8M)

Visual art and music classes left me experiences of incompetence and failure: the issues were not practiced, and we should have had the skills and succeed right away. I notice that this influences my feelings about myself even today as a musician or visual artist. (10W)

Music education during primary and secondary school as a whole seems to have had a significant influence on musical self-conception. The singing tests seemed to have been inhumane and terrifying for the pupils as well as to the teacher education students. Singing tests have traditionally been a way of abusing power and putting down pupils and students. The tradition may have lived on because music teachers have wanted to take revenge for their own negative experiences during their studies at Sibelius Academy or other music teacher education institutions. No reasonable, rational explanation can be found to justify including singing tests in modern-day education programmes. On the contrary, unnecessary singing tests cause traumatization and fear towards music, which creates changes in attitudes in the negative direction.

I went to an artistic expression high school which was open to all kinds of people. I chose several music courses and enjoyed the creative atmosphere. (2W)

Art orientation and interest in art and skill subjects united pupils. In high school, the teachers were very encouraging and motivating. After high

school I wanted to carry on my studies in the art focused UEF campus in Savonlinna. Wonderful memories from art and skill subjects during the school days! (4W)

In teacher education, it was nice to have piano lessons. I learned an enormous amount and felt successful. I plan to develop my playing skills further in my free time. I would like to learn more instruments. (10W)

The pupils form their concepts about themselves as actors in different school subjects and they seem to carry that concept in their minds until the adulthood.

B. Visual art

There were few memories from elementary school visual art lessons. Generally speaking, visual art was liked a little more than music, but also visual art had caused traumatic experiences for some of the respondents. Mostly the criticism focused on different types of evaluating and marking systems. Comparing artwork to that of others also caused negative experiences and anguish for respondents.

Visual art was versatile and nice, the evaluation system from one + to three +++ was not nice, it was unfair. (1W)

I do not remember anything from visual art lessons, they were thoroughly planned, and they did not leave room for creativity. In upper classes, art and skill subjects were rather painful because comparing took place all the time and bullying got worse and worse. (2W)

Visual art lessons usually are quite free, and teachers allow quiet discussion with friends in the classroom. Still, one respondent wrote that her class was so loud that all the lessons seemed meaningless. Also, too sharp critique of the artwork felt bad and one of the respondents wrote that there was no room left for a pupil's own creativity in visual art lessons. Comparison to other pupils' works seems to have created all respondents quite a lot of stress. Positive experiences which can turn self-esteem upside down have also occurred, for example, due to success in a school drawing contest. This kind of public positive feedback has a very strong influence on an individual's self-conception.

When I was small, I liked drawing and painting a lot, visual art lessons were nice, but in upper classes our class was so restless that I did not like any subjects at school. (3W)

I did not gain good memories from elementary school visual art lessons: the works were so strictly critiqued and there was no room for creativity. All works were supposed to look just the same, and the comparison between the works was merciless both via voice and inside my own head. At the end of elementary school all the works were collected together for the teacher for evaluation. Then the teacher looked at each work for a couple of seconds and gave a grade for each work. The final mark was the average of the numbers given. This was depressing, I felt like crying, and I was ashamed as it was the only feedback given, there was no room to develop. I thought that I was a lousy drawer, and I did not draw in my free time. The change came along with the school's drawing contest, where I was second best with my dragon drawing. I got beautiful wooden colour pens as a prize. (10M)

Many of the visual art teachers have been very nice and much liked persons, which the respondents remember even more often than the things which took place in the lessons.

In high school the teachers encouraged creativity and did not interfere with pupil's abilities. (2W)

My secondary school teacher succeeded in encouraging me to work with the pictures, the teacher was a liked person and memorable. The high school teacher was quite original, but very much liked. (8M)

In memories of visual art, it seems obvious that the teacher had a strong impact on pupils as an encourager or on the other hand as someone who stifled enthusiasm. All kinds of comparisons and evaluation seem to have been quite counterproductive according to many respondents' experiences, but still, there were also positive experiences. A high mark in the school report was a good supporter and positive experience, and a lifter of self-esteem.

In secondary school the teacher compared the works again and my enthusiasm ceased. (10W)

All works were evaluated numerically, the situation was quite stressing, but I always got marks 9–10 and that is why the experience was empowering. (7M)

The first memory was a paper coloured with crayon. I was very self-critical, nothing seemed to be a success. I was quite sensitive to evaluative feedback. (9W)

The experiences gained from visual art lessons are still affecting respondents' attitudes towards the subject, as well as their self-conceptions.

The experiences from elementary school have been wide-ranging, it is good to become conscious of them and start learning new issues. (5W)

Some respondents experienced this task as the one that made them aware of the impact of experiences in elementary school and school at any level, as well as attitudes towards different school subjects and self-esteem.

C. Craft

Craft education has aroused many positive memories, but the traditional division of boys doing technological education and girls dealing with soft materials seem to be clear. Quite many girl respondents seem to be uncertain of their skills to deal with hard materials and some even expressed their fear of loud woodworking machines. Several respondents said that their warm relationship with crafts originated from a hobby which started at home when tinkering and mom or grandmother familiarized them to knitting.

Handicraft was very nice; working with soft materials I remember myself making elf-pillows. (1W)

I liked handicraft (textile works) but when dealing with hard materials (wood) I felt uncertain. Different drilling machines and other machines scared me. During woodworking, I liked sawing and painting, the kind of work where loud machines were not needed. (6W)

I have been tinkering, making handiworks, crocketed and carved wood since childhood. Craft and visual art have been my favourite school subjects since elementary school, and they still are today. I wish to take craft as my major subject. Behind my liking of crafts is my enthusiasm, the encouragement from home has been much more important than what the teachers have been doing. Because of my handicraft hobby, I have always felt like I am good at it. (9W)

In the best possible situation, craft has offered a lot of experiences of success; empowerment and use of one's own creativity (compare Seitamaa-Hakkarainen, 2009). Many respondents had handicraft as a hobby also in their free time. They also had many warm memories of their craft teachers.

In secondary school craft was still my favourite subject, I took all the voluntary courses. The teacher was really nice, she encouraged taking craft as a hobby during free time, too. In the 8th grade, I made a sweater and in 9th grade I made a rug. The worst thing in high school was that there were not craft as a school subject. I liked visual art because we made things which had a connection to craft like printing on a bag and building miniature models. (7W)

In craft I was always at the top of my class and I favoured it as the best school subject. The atmosphere in the lessons was wonderful, the teacher cared about the pupils personally, creativity and our own designing were favoured, and the works succeeded well. Experiences of success, wonderful teachers, communal working and as a result also the best marks on the school report card. The same continued in secondary school and also in free time. (10W)

Some respondents have also had negative experiences of craft lessons at school. The projects required too much time to complete. The traditional division into boys' hard materials and girls' soft materials seems to have been clear to this group of respondents. Gender-oriented craft seems to be alive and well at least when these respondents were at school 5–10 years ago. One respondent suffered a lot from being left-handed. The teacher did not have skills to teach her in textile works. The teacher's yelling, of course, does not help in liking any school subject.

Craft was sometimes boring, and the projects required too much time to complete. Too much concentration was needed for one project. (1W)

The girls were doing textile projects and the boys did woodworking projects. (2W)

Craft I never liked. I am left-handed and I clearly remember that in the elementary school teachers could not teach me in handicraft because of me being left-handed. I remember difficult situations from craft lessons, and I

was even afraid to go to craft lessons when I knew that I cannot do the assignments, and nobody could help me. I did not like woodworking either. (5W)

Most of the craft lessons went wrong because of the misbehaving girls in my class who tried to make the very volatile craft teacher explode. These girls succeeded in their aim too well and too often. (2W)

Craft left me with the most negative memories. In elementary school I was enthusiastic in handicraft, but the secondary school teacher started yelling at me when I could not use the sewing machine. I started skipping craft classes already in elementary school. (6W)

I had bad experiences using soft materials in craft lessons, and I started to be afraid of hard material lessons, too. I am afraid and I get stressed from craft teaching. (3W)

I still do not like craft, and I cannot imagine myself teaching craft up from third grade. (5W)

Many respondents had taken a negative attitude towards craft, and it still exists even today though several years or even decades have passed since they gained the experiences causing a negative attitude.

D. Physical education

Physical education is, according to several studies, the most favoured school subject, but many respondents have also negative experiences from physical education lessons. Those who felt they were sporty or physically talented usually liked physical education as a school subject, too. Many respondents have enjoyed physical education lessons, and this subject has been the best among all other school subjects, and they have nothing but good things to say about their teachers. This means that the physical education has been carried out in the correct way (compare Jaakkola, Sääkslahti & Liukkonen, 2009).

I have good memories from physical education, I was always good in it and succeeded and enjoyed the lessons. The teachers were wonderful, and I got many experiences of succeeding and working communally. The old traditional dances were marvellous, and I enjoyed every moment. (2W)

In craft and physical education, I have been able to shine and flourish and had experiences of success which show that I am at my best dealing with craft and physical education. I chose physical education as voluntary courses, even though the group games were not my favourites. (1W)

Learning the old traditional dances at physical education lessons has been the best experience for some respondents and the worst for some others. This clearly shows the polarization of the subject. Running the Cooper's test and all the other testing and measuring of performances have raised negative feelings, but some, almost professional athlete-level respondents have enjoyed these the most. The competitions between schools have offered extra positive experiences for some of the respondents.

I have always been very sporty, and I only have positive experiences from physical education lessons. The best experiences came from the 1500 m running test, because I was almost a professional athlete. Nowadays I understand why not all pupils liked these tests. (3W)

I am sporty and I have been competing and am target oriented, and in the competitions between the schools I was always the best, I liked the running tests, and I won Finnish championships. (5W)

Positive feedback from teachers has supported sportsman-like behaviour until the present day for one respondent. Also, good marks on the school grade report have been encouraging and reassuring. Some respondents have felt that they were good at every sport taught during their physical education lessons at school.

The teacher said that I was the best physical education pupil of all time. This recognition has affected my life strongly; everything connected to sports makes me believe that this is where I am at my best. 6W

Physical education lessons were the highlights of the day, I was good in sport, swimming, gymnastics, and skiing were my favourites. (7W)

I started playing volleyball when I was 5 years old; sports have always been close to my heart. My physical education grade was 10. We won the volleyball competitions against other schools. I acted like a teacher when there was volleyball in physical education lessons. (8M)

I liked skating and skiing the most, which I also did in my free time. Group games and apparatus gymnastics were my aversions. (9W)

The respondents had quite a lot of negative memories from physical education lessons. In winter sports, skating with lousy skates in very low temperatures below zero and long skiing tours with difficult uphill slopes created negative experiences.

I have the worst memories from winter sports (the skates were lousy, and it was colder than -20 degrees Celsius) and in skiing we ran long tours, and the uphill slopes were so terribly difficult. Secondary school physical education: I liked the variability, floorball and track and field sports were nice but bad memories I got from team division. (1W)

Division into teams for team games was often done in the way that the two best players chose participants for their teams and worse players were chosen last. This caused trauma for many respondents.

Ball games offered bad experiences as the most popular pupils chose the teams. (3W)

Physical education became my aversion because I felt I was worse than the others. I was always the last one chosen to teams. Even now sports feel unpleasant, although a nice teacher succeeded in lifting my motivation a little. (4W)

Also, a clear division into good and lousy, continuing evaluation and measuring performances in sport, as well as a bad and competitive atmosphere, caused bad experiences for some of the respondents. In these cases, the teacher had not succeeded in supporting the pupils' physical education self-conception toward a positive direction; quite the opposite (compare Jaakkola, Sääkslahti & Liukkonen, 2009).

Later we got a different teacher, and the terrible division into poor and good athletes started, I belonged to the poor group, as I was bullied. The teacher did not care at all; he rather threw more water onto the mill. The physical education lessons were utter pain, full of assessment and discrimination. I was one of the poorest because of my weak self-confidence. The physical education lessons were divided between boys and girls. The most terrible classes were the old traditional dance lessons, I became an outsider again. In my self-assessment I was totally lousy in everything. (2W)

The high school physical education teacher killed my interest in sports by favouring such pupils who had sports as a hobby and who were on some sports team training their skills. Only they could get marks 9–10 and for the others the highest mark was 8. I always got 6 or 7 from the high school condition testing which caused a feeling of failure and did not strengthen my motivation. In high school physical education lessons, the competition was continuous, and the prickly teacher followed all the time who was the best. I was almost every time the last and slowest which caused me to not be physically active or doing any sport in my free time. Skiing, skating, and biking have stayed as occasional hobbies, but I do not want to compete or compare my performances. (9M)

In High school we played football and the teacher was sitting by the field drinking coffee which was terrible because I did not like team sports at all. Teachers, their attitude, feedback, and tasks have an important significance according to my own experience. (10W)

Unfair evaluation and teacher's despicable behaviour and favouring some at the expense of others as well as the justification of giving poor marks in the school report are sources of negative experiences for many respondents. Competitiveness and comparison to other pupils have also caused a considerable dissatisfaction among some respondents.

Discussion

The art and skill subjects have a strong influence on pupils. The strength of the influence is caused by the subjects producing such actions and products which are easy to evaluate by anyone. Judging by the respondents' narratives, it often seems that teachers have acted incorrectly and discretely in every situation. The negative experiences affect building attitudes which are quite permanent in nature and these attitudes may remain for the rest of the whole individual's life. For example, singing tests in music classes have caused such severe trauma for many people that they had never got over it. When one's musical self-conception is damaged, it is very difficult to mend it. The experiences of having been put down follow the individual until

adulthood, labelling the person as unmusical, a lousy sportsman, poor handicraft maker or bad drawer. These negative experiences often influence the individual's whole personality, his positiveness and negativity and whether the person is optimistic or pessimistic. The attitudes also mirror the courage of starting a new kind of tasks and meeting new people.

Curriculum may set many important and enviable tasks in art and skill subjects, but it seems that only in some cases these aims have been reached. In some cases, teachers' actions have traumatized many pupils and have created a negative attitude towards the subject. All kinds of competitiveness, comparison or direct criticism have aroused negative feelings towards the subjects. This can be seen clearly in physical education and visual arts, but also in music in the form of singing tests and also in craft in various ways. The negative experiences obtained during school time have had a strong attitude-moulding impact which can be seen still affecting the minds of the respondents. On the other hand, those whose experiences have been positive still have positive attitudes toward those school subjects and they show their willingness to learn more about these subjects.

This research reveals the strong influence of teachers and their activities as attitude moulders and as producers of experiences which leave their mark on the whole school experience. This issue must be considered more seriously in future teacher education programmes so that to avoid traumatizing and negative experiences in school art and skill subject education. There has been some research on what a good music teacher is like in pupils' opinion. Pupils do not expect to have a highly skilled musician as their teacher. They want a person who is nice, appreciates the pupils and is pedagogically competent (Mäkinen, 2020). How to train such a teacher? Mäkinen (2020) identifies three ways to solve this problem: 1) supervised teaching practice, 2) integrated artistic and physical education, and 3) taking into account wishes of students.

References

- Allardt, E. (1976). *Hyvinvoinnin ulottuvuuksia* [Dimensions of Well-being]. Porvoo: WSOY (in Finnish).
- Bardy, M. (2002). Syrjäytymisestä, taiteesta ja kehityksestä [About marginalization, art and development]. In I. Sava, & M. Bardy (Eds.), *Taiteellinen toiminta, elämäntarinat ja syrjäytyminen: SYREENin Taimi-projekti 2001–2003*. Helsinki: Taideteollisen korkeakoulun julkaisusarja, F 21 (in Finnish).
- Bardy, M. (2007). Taiteen paluu arkeen [Art's revival to everyday life]. In M. Bardy, R. Haapalainen, M. Isotalo, & P. Korhonen (Eds.), *Taide keskellä elämää* (s. 21–32). Keuruu: Otavan Kirjapaino Oy (in Finnish).
- Bardy, M. & Känkänen, P. (2005). *Omat ja muiden tarinat – Ihmisyyttä vaalimassa* [Own Stories and Stories of the Others Taking Care of Humanity]. Vammala: Vammalan kirjapaino Oy (in Finnish).
- Heino, T., Eronen, T., Kataja, K., Kestilä, L., Känkänen, P., Paananen, R., Pösö, T. & Rainio, A.P. (2013). Suojassa, syrjässä, selvinneenä – huostaan otetut ja sijoitetut lapset Suomessa [Safe, aside, survived – custodied and stationed]. In J. Reivinen, & L. Vähäkylä (Eds.), *Ketä kiinnostaa? Lasten ja nuorten hyvinvointi ja syrjäytyminen* (s. 50–68). Helsinki: Gaudeamus (in Finnish).

- Jaakkola, T., Sääkslahti, A. & Liukkonen, J. (2009). Koulun liikuntakasvatus oppimisvalmiuksien luoja ja lasten kasvun ja kehityksen tukena [School's physical education creating learning abilities and supporting childrens' growth and development]. In A. Aro et al. (Eds.), *Taide ja taito – Kiinni elämässä!* (s.49–54). Opetushallituksen julkaisu. Helsinki: Edita Prima Oy (in Finnish).
- Juvonen, A. (2008). Art and skill subjects – could they help in pedagogical well-being? In M. Marnauza (Ed.), *Theory for Practice in Pedagogy* (pp. 25–35). Riga: RTTEMA.
- Juvonen, A. & Anttila, M. (2007). Musical orientation and music learning motivation at Finnish schools. *Problems in Music Pedagogy*, 2, 68–87.
- Karppinen, S. (2005). Käsityö – vuorovaikutusta, leikkimielisyyttä ja ilmaisua [Craft – interaction, playfulness, and expression]. In I. Karppinen, I. Ruokonen, & K. Uusikylä (Eds.), *Taidon ja taiteen luova voima. Kirjoituksia 9–12-vuotiaiden lasten taito- ja taidekasvatuksesta* (s. 101–116). Helsinki: Oy Finn Lectura Ab (in Finnish).
- Karppinen, S. (2008). Innostamisen pedagogiikka käsityössä ja taiteessa [Pedagogy of encouraging in craft and art]. In S. Karppinen, I. Ruokonen, & K. Uusikylä (Eds.), *Nuoret ja taide – ilolla ja innolla, uhmalla ja uholla – Kirjoituksia murrosikäisten taito- ja taidekasvatuksesta* (s. 101–111). Oy Finn Lectura Ab. Anjalankoski: Solver Palvelut Oy (in Finnish).
- Kolme puheenvuoroa luovuuden edistämisestä* (2005). Luovuusstrategian osatyöryhmien raportit [Three Speeches on the Promotion of Creativity: Reports of the sub-working groups of the creativity strategy]. Opetusministeriön julkaisu 35 (in Finnish).
- Konu, A. & Rimpelä, M. (2002). Well-being in school: A conceptual model. *Health Promotional International*, 17(1), 79–87.
- Kupari, P., Välijärvi, J., Andersson, L., Arfman, I., Nissinen, K., Puhakka, E. & Vettenranta, E. (2013). *PISA 2012 Ensituloksia* [PISA 2012 First Results]. Opetus- ja kulttuuriministeriön julkaisu 2013:20 (in Finnish).
- Kyllönen, M. (2014). Sivistysjohtajan näkökulma [Education chef's point of view]. In P. Hamarus, P. Kanervio, L. Landén, & S. Pulkkinen (Eds.), *Huuto! Lasten ja nuorten hyvinvoinnin puolesta* (s. 80–91). Juva: Bookwell Oy (in Finnish).
- Känkänen, P. (2006). Taidelähtöiset työmenetelmät lastensuojelussa [Art-based working ways in child welfare]. In H. Forsberg, A. Ritala-Koskinen, & M. Törrönen (Eds.), *Lapset ja sosiaalityö. Kohtaamisia, menetelmiä ja tiedon uudelleenarviointia* (s. 129–148). Sosiaalityön neljäs vuosikirja. Jyväskylä: PS-kustannus (in Finnish).
- Liikanen, H.-L. (2009). Taide- ja taitoaineet oppilaiden hyvinvoinnin edistäjinä – hyvä pohja elämälle [Art and skill subjects promoting pupils' wellbeing – good base for life]. In A. Aro et al. (Eds.), *Taide ja taito – Kiinni elämässä!* Opetushallituksen julkaisu (s. 91–96). Helsinki: Edita Prima Oy (in Finnish).
- Lilja-Viherlampi, L.-M. (2007). *“Minunkin sisälläni soi”: musiikin ja sen parissa toimimisen terapeuttisia merkityksiä ja mahdollisuuksia musiikkikasvatuksessa* [“Music is Playing Inside Me, Too”: Musical action's therapeutic possibilities in music education]. Turun ammattikorkeakoulun tutkimuksia 23. Turun kaupungin painatuspalvelukeskus (in Finnish).
- Luovuuskertomus (2004). *Ehdotus hallitusohjelmassa tarkoitetun luovuusstrategian tekemisen luonteesta, lähtökohdista ja toteuttamisen tavoista* [Creativity Story: A

suggestion of creativity strategy's nature, starting points and ways of action of government platform]. Opetusministeriön julkaisuja, 4:2004 (in Finnish).

Ministry of Education (2014). *Osaamisella ja luovuudella hyvinvointia: Opetus- ja kulttuuriministeriön tulevaisuuskatsaus 2014* [Wellbeing with Know-how and Creativity: Ministry of Education and Culture future overview 2014]. Opetus- ja kulttuuriministeriön julkaisuja 2014:18. Saatavilla www-osoitteessa (in Finnish). Retrieved October 10, 2020 from www.minedu.fi/julkaisut

Mäkinen, M. (2020). *“Se ei ragee ja popittaa meidän kaa” : matkalla monipuoliseksi musiikkikasvattajaksi* [“It Doesn't Rattle and Pop Like Ours”: On the way to becoming a versatile music educator]. Joensuu: University of Eastern Finland (in Finnish).

POPS (2014). *Peruskoulun opetussuunnitelman perusteet* [Basics for Elementary School's Curriculum]. Opetushallitus (in Finnish). Retrieved November 30, 2020 from https://www.opph.fi/sites/default/files/documents/perusopetuksen_opetussuunnitelman_perusteet_2014.pdf

Pulkkinen, S. & Kanervio, P. (2014). Nuorten elämismailma [Young peoples' living reality]. In P. Hamarus, P. Kanervio, L. Landén, & S. Pulkkinen (Eds.), *Huuto! Lasten ja nuorten hyvinvoinnin puolesta* (s. 119–141). Juva: Bookwell Oy (in Finnish).

Pöllänen, S. (2008). Käsityö terapiana ja terapeuttisena toimintana [Craft as therapy and therapeutic action]. In A. Niikko, I. Pellikka, & E. Savolainen (Eds.), *Oppimista, opetusta, monitieteisyyttä – Kirjoituksia Kuninkaankartanonmäeltä* (s. 91–105). Savonlinna: Joensuun yliopisto. Savonlinnan opettajankoulutuslaitos (in Finnish).

Pöllänen, S. & Kröger, T. (2005). Näkökulmia kokonaiseen käsityöhön [Points of view to a complete handicraft]. In J. Enkenberg, E. Savolainen, & P. Väisänen (Eds.), *Tutkiva opettajankoulutus – taitava opettaja* (s. 160–172). Savonlinnan opettajankoulutuslaitos (in Finnish).

Ruokonen, I. & Grönholm, M. (2005). Musiikkikasvatus perusopetuksessa ja musiikkiluokilla: Kasvamista musiikkiin ja musiikin avulla [Music education in basic teaching and in special music classes: Education for music and with music]. In S. Karppinen, I. Ruokonen, & K. Uusikylä (Eds.), *Taidon ja taiteen luova voima. Kirjoituksia 9–12-vuotiaiden lasten taito- ja taidekasvatuksesta* (s. 85–100). Helsinki: Oy Finn Lectura Ab (in Finnish).

Rönkä, A. (2014). Syrjäytymisen vastavoimat [The counter powers against marginalization]. In S. Määttä, L. Kiiveri, & L. Kairaluoma (Eds.), *Otetta opintoihin*. Niilo Mäki instituutti (s. 36–40). Porvoo: Bookwell Oy (in Finnish).

Sederholm, H. (2007). Taidekasvatus – samassa rytmissä elämän kanssa [Art education – in the same rhythm with life]. In M. Bardy, R. Haapalainen, M. Isotalo, & P. Korhonen (Eds.), *Taide keskellä elämää* (s. 143–149). Helsinki: LIKE/Nykytaiteen museo Kiasman julkaisuja 106 (in Finnish).

Seitamaa-Hakkarainen, P. (2009). Pohdintoja käsityön kuvasta [Reflections about the image of crafts]. In A-M. Aro, M. Hartikainen, M. Hollo, H. Järnefelt, E. Kauppinen, H. Ketonen, M. Manninen, M. Pietilä, & P. Sinko (Eds.), *Taide ja taito – kiinni elämässä* (s. 63–75). Opetushallitus 2 (in Finnish).

Suomen InSEA ry. (2012). *Kannanotto Suomen InSEA ry:n puolesta korkeatasoisen suomalaisen taidekasvatuksen turvaamiseksi ja aseman vahvistamiseksi* [Stand-taking on Behalf of Finnish InSEA for Safeguarding High Quality Finnish Art Education and Strengthening Its Position].

Suomi, H. (2019). *Pätevä musiikin opettamiseen? Luokanopettajaksi valmistuvan musiikillinen kompetenssi perusopetuksen opetussuunnitelman perusteiden toteuttamisen näkökulmasta*: Väitöskirja [Qualified to Teach Music? The musical competence of a student graduating as a classroom teacher from the point of view of implementing the basics of the basic education curriculum: dissertation]. Jyväskylä University Printing House (in Finnish). Retrieved April 04, 2021 from <http://urn.fi/URN:ISBN:978-951-7765-8>

Tornikoski, R. & Ylämäki, E. (2009). *Taito- ja taideaineet: Perusopetuksen laiminlyöty mahdollisuus?* Kasvatustieteen pro gradu – tutkielma [Art and Skill Subjects: Elementary school's neglected possibility? Master thesis in education]. Tampereen yliopisto. Opettajankoulutuslaitos, Hämeenlinna (in Finnish).

Received 15.02.2022

Accepted 24.03.2022