Daugavpils University

PROBLEMS IN MUSIC PEDAGOGY

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Problems in Music Pedagogy is an international refereed journal concerned with all aspects of music pedagogy. Topic areas include music teaching/learning process in a new education paradigm context, music learning outcomes, assessment in music pedagogy process, music teaching and learning activities, music teacher competence in the context of sustainable development, music education institutional responses to current trends. The journal is committed to promoting excellence in these fields by providing an international forum for the debate and evaluation of a wide range of music pedagogy issues and professional concerns.

The journal aims to publish articles which will contribute to improving theory and practice in the field of music pedagogy.

These articles may variously:

- · raise and debate contemporary issues;
- · report on new research;
- relate new research to theory;
- · relate theory to practice;
- · offer informed comment on contextual and professional matters;
- · describe cases and their implications for a wider field;
- · discuss a historical movement in terms of its relevance to present and future situations.

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EDITORIAL

Dear readers,

this issue of "Problems in Music Pedagogy" contains studies reflecting practical experience and theoretical propositions originated not only in the Baltic region (Finland, Estonia, Latvia), but also in the Brazil.

Working with human values needs to come out of the hidden curriculum and go to the foreground. Before teach the history of music, teacher needs to learn the history of each student: Who are they? What do they think? What do they dream? What do they have to say? We must identify the vulnerability of each student, give them a voice, educate for critical and reflective thinking, making them aware of what is happening in our society and in the world. It is necessary to go beyond the walls of the school, that means, include the family and the community in the process. Mara Menezes from Brazil proposes a teacher training approach based on building personal and professional skills on social awareness and human values for social change.

The article of Inkeri Ruokonen (Finland) describes the "International Minifiddlers Distance Learning Project" in violin studies developed by Caprice Ltd. The results show that according to the participants (music teachers) of "International Minifiddlers Distance Learning Project" works very well in learning instrument pedagogical skills especially with the combination of demonstrative children's groups. Author notes that the potential of distance learning programmes will grow radically in the future education and this is changing the way of sharing the best pedagogical knowledge and practices in any field of education.

The aim of the article of Tiina Selke & Gerhard Lock (Estonia) was to report on testing with high school students (aged 17–19) chosen digital learning material composed for the Estonian state (EU funded) Project "Digital Learning Resources for High Schools" (2017–2018, DÕV) led by Tallinn University (TLU) Institute of Digital Technologies (DTI) Centre for Educational Technology. The innovation of the new digital learning material lies in the variety of the tasks and enables open access to internet resources. A novelty of the digital learning material can be seen also in the numerous options for group work, the possibility to proceed more profoundly according to students' interests, and the possibility to express the student's own opinion.

Using practice-led methodology Gaļina Zavadska & Ilona Bagele (Latvia) characterize different forms of music dictation, and explain the teaching strategies in the organization of students' work on writing music dictations.

On behalf of editor-in-chief of the journal, I express my appreciation to the authors, Editorial Board, Editorial Staff, Council of Science of Daugavpils University and the Academic Press "Saule" for successful teamwork, perseverance and valuable support to the continuation of this periodical.

Editor-in-chief Jelena DAVIDOVA

CONTEMPORARY MUSIC EDUCATION: DEVELOPING SOCIAL AND ETHICAL VALUES FOR SOCIAL CHANGE

Mara MENEZES

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Abstract

This study presents and discusses the challenges of music education in schools nowadays and reflects on a new paradigm with regard to the music teacher's training. Taking as a starting point curricula framework of Coll, Pozo, Sarabia & Valls (1998), Delors (2013) and UNESCO (2014), we propose a teacher training approach based on building personal and professional skills on social awareness and human values for social change. The research followed the practice of 10 student teachers for one year. The data was collected through bibliographical research, qualitative survey, field journals and class plans and data analysis. The student teachers designed the project "Music and Human Values", developing musical activities, values-based selection of repertoire and composition focusing on building awareness and practice of social and ethical values. The results showed that the music class developed music competences and abilities, but especially that the sensitive character of music can enhance the achievements on the development of values. After the one-year project, the student teachers noticed a positive impact on the school environment: a drastical drop in the occurrence of bullying cases, growth of pupil's self-esteem, musical learning improvement, preference for the activities that value teamwork, increase of friendship, respect and empathy between students.

Key words: music teacher training, public school, human values

Introduction

The music teacher profession, as all the other educational areas, is built socially and culturally and because of that they are in incessant transformation requiring us to constantly rethink the teacher training formative processes to better prepare the professionals that can meet these new challenges. At the same time, we need to expand our concept of music education to beyond the teaching and learning of musical skills and abilities.

According to Blacking (1995), "music as a cultural phenomenon is one of the richest and most meaningful human expressions, and it's a product of experiences, beliefs, values and the significance that permeate's life" (p. 223). This perspective brings new

developments for the teacher training curriculum in our undergraduate courses as we need music teachers able to use a large variety of methodological strategies, competences, skills and attitudes to achieve a music education learning based on the triad: human development, ethics and knowledge production. The music class needs to be part and be articulated with a much wider school project: the development of the human being. Agreeing with Bellochio (2016), the ethic for music teachers is not just asking What should I teach and what should I do? But How do I want music to contribute to the life and process of musical education of students?

Values Education in Curriculum Frameworks for the 21st Century

The technological development has brought us together, but it also creates distance between people. The political and social changes caused by wars and intolerance have provoked profound changes in society and, consequently, in education. We need to relearn to live together respecting differences and celebrating diversity. And the arts, especially music, have the power to bring people together. When we learn new music, when we sing or play together, we would live experiences that go beyond music itself. The musical exchanges experienced in the music class can also teach how to live together.

The humanist dimension presented by Coll, Pozo, Sarabia & Valls (1998) and Zabala (1998) in the late 1990s, emphasizes that the content must be understood according to its typology (concepts, procedures and attitudes) independent of the discipline at the school curriculum. The attitudinal dimension of contents involves attitudes, norms and values. It corresponds to the philosophical commitment of school to promote aspects that improve us as human beings, that give a greater dimension, that give reason and meaning to scientific knowledge.

The Delors report (Delors et.al., 1996) presented four pillars of education for the 21st century: learning to know, learning to do, learning to be and learning to live together. The pillars are linked and should be equally considered in the educational process.

Learning to know is about acquiring knowledge, the instruments of understanding and learning how to learn through life. It's completing the basic education and still being full of curiosity, the desire to gain a better understanding of the world and other people (Delors, 2013). Learning to do is to apply the knowledge learned, to be creative and find solutions for new situations and problems. Learning to be is about to enable people to understand themselves better, to build self-steam and self-confidence, to be able to act with increasing capacity for autonomy, discernment and personal responsibility. Finally, the fourth pillar "it's essential in the world we live in and an important part of school education. It concerns the relationship between schools and communities. We need to truly understand the heritage that underpins each one, so that we can learn to be tolerant. But you cannot have tolerance without understanding, it is not just a gesture of the heart. It requires an understanding of cultural and religious phenomena" (Delors et.al., 1996, 321).

"Learning to live together, by developing an understanding of others, of their history, their traditions and their spirituality. This would provide a basis for the creation of a new spirit which, guided by recognition of our growing interdependence and a common analysis of

the risks and challenges of the future, would induce people to implement common projects or to manage the inevitable conflicts in an intelligent and peaceful way. Some might say that this is utopian; and yet it is a necessary utopia, indeed a vital one if we are to escape from the dangerous cycle sustained by cynicism and complacency" (Delors et.al., 1996, 91).

The philosophy of education also outlined essential characteristics for teaching and learning in the 21st century. For Morin (1999), it is pertinence in knowledge, confronting uncertainties, detecting errors, understanding each other, teaching the human condition and ethics for humanity. According to Gardner (2009), education's main guidelines should be discipline, synthesis, creativity, respect and ethic. Both highlighted the importance of the attitudinal content.

The Center for Curriculum Redesign (CCR) (2015) proposed a curriculum framework (see Figure 1) based on a holistic approach, by offering a complete framework across the four dimensions of the education: knowledge, skills, character, and metacognition. This approach aims to shape "confident and compassionate students, successful learners that can contribute to their communities, and serve society as ethical citizens" (p. 5).

"Knowledge must strike a better balance between traditional and modern subjects, as well as interdisciplinarity. Skills relate to the use of knowledge, and engage in a feedback loop with knowledge. Character qualities describe how one engages with, and behaves in, the world. Metacognition fosters the process of self-reflection and learning how to learn, as well as the building of the other three dimensions" (CCR, 2015, ii).

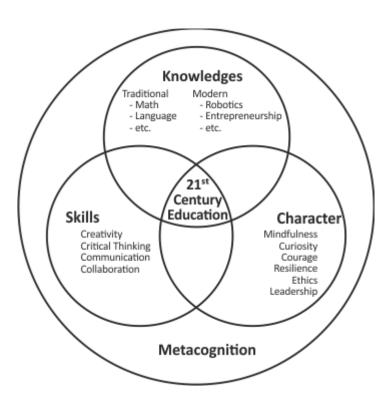


Figure 1. CCR Curriculum Framework (CCR, 2015, p. ii)

UNESCO (2014)¹, in the "Teaching Respect for All: Implementation guide" acknowledges that a curriculum must enable every child to acquire the core of nine academic competencies and basic cognitive skills, together with essential life skills, attitudes and behaviors that equip children to face life challenges, make well-balanced decisions, develop a) a healthy lifestyle, b) good social relationships, c) critical thinking skills, d) the capacity for non-violent convict resolution, e) respect for human rights and fundamental freedoms, as well as promote respect for different cultures and values and respect for the natural environment. The question is *How could the music curriculum focus more on building these competencies?*

Methodology

The *Music and Human Values* was a qualitative research developed from January to December of 2017 with 10 undergraduate student teachers, two experienced music teachers (working in two public schools²) and one coordinator (this author). Each music teacher had five undergraduate students practicing in his/her school four hours per week, under his/her supervision. The student teachers chose one class for his/her practice (50 minutes) and in the rest of the time they assisted the senior music teacher. In addition to that, we had one weekly supervision meeting at the university with all participants.

The first part of this research was a diagnostic view on human values. The data was collected through questionnaire with the undergraduate student teachers. The questionnaire applied took as reference the 18 (eighteen) basic human values by Gouveia (2003).

The second part of the research was to build up a theoretical background through literature research, selection of articles for study and group discussions. Together with that, we started planning the development of activities, selecting repertoire, creating musical activities, elaborating class plans and attending a workshop with experienced music teachers. During the weekly meeting we had group discussions for planning, to share experiences, results and reflection. The trainee teachers collected data through field journal, pictures and video. The results were presented by a semester report, weekly reports on the project blog, articles and oral presentations at conferences.

Deeply concerned by the rise of racism, xenophobia, intolerance and violence, UNESCO considers education as key to strengthening the foundations of tolerance, promoting learning to live together, and cultivating respect for all people regardless of color, gender or descent, as well as of national, ethnic or religious identity. The "Teaching Respect for All: Implementation guide" comprises a set of policy guidelines, questions for self-reflection, ideas and examples of learning activities to integrate "Teaching Respect for All" into all aspects of upper primary and lower secondary education in an effort to counteract discrimination in and through education. It mainly targets policy makers, administrators/headteachers and formal and non-formal educators. The Guidelines also includes support materials for engaging with children and youth. The material aims to provide all concerned stakeholders with the skills, background and knowledge to build respect, tolerance and critical thinking among learners.

² School 01: Escola Municipal Maria do Carmo Vilaça, 1st to 5th grade, 529 students School 02: Escola Allan Kardec, 6th to 9th grade, 199 students.

Musical Activities

During the project "Music and Human Values", the trainee music teachers designed several activities specifically focused on the development of the musical and attitudinal contents, such as values, principles, behaviour and ethics. The values selected were based on the *Dictionary of Values* (Pacheco, 2012) and were used as reference for the repertoire selection and development of the classroom activities.

A. Repertoire selection

The repertoire selected took into account the relation of the letter with the project theme and musical preferences of the pupils, often music from the media and children's universe. With the primary students the songs were used for improving tune, dynamics, rhythm, and other musical contents. Regarding the attitudinal aspect, the discussion about the lyrics was an important moment for self-awareness about the meaning of values in our life and as society and, at the same time, they worked on the ability of listening to their peers, respecting different opinions and waiting for your turn to talk.

B. Musical Games

Musical games proved to be very effective for developing musical skills like listening, moving, singing, playing, and also personal skills such as creativity, teamwork, leadership, initiative, self-expression, attention, among others. Initially the trainee teachers used the book "101 Music Games for Children" (Storms, 1994). Some games were adapted to the context of each music class, others were developed specially for specific situations. "Depending on your objectives, you can use these games to help group members learn about each other, loosen up, reduce nervousness, warm up for a more difficult exercise, or build confidence in themselves and each other. These games can also help members of the group become better at considering other people's feelings and taking risks. Through a careful choice of the right activities these games can help a new class begin to function as a cooperative, close-knit unit, rather than as a collection of individuals who just happened to come together" (Storms, 1994).

Regarding the values, games can be very resourceful for work themes like honesty and ethics. During the activities the students are faced with situations that lead them to reflect on their conduct. For example: What do I do when I make a mistake and nobody sees? How do I feel when I win/lose? How do I deal with the rules?

C. Listening

Through listening to music we enable the amplification of musical knowledge, recognizing the need to interact with the knowledge of popular cultures from other social contexts. The music teacher needs to understand diversity not as something we should learn to 'tolerate', but as a condition of human existence. Listening and discussing can promote a reflection about learning to be and to live together.

"We watched a video today about making music in an unusual context: a street artist showing all his technique and ability to play drums in buckets on a sidewalk. They got curious and tried to imitate the musician using the tables. We discussed about what is music, who are the street performers, how he created so many sounds only from buckets and which body sounds he produced. We also talked about the

people's solidarity and generosity, the persistence and resilience that he may have. At the end, they could understand more about the alternative musical universe. Musical contents: rhythm, timbre, improvisation. Values: solidarity, empathy, persistence, resilience" (Field Journal from Tássio, trainee teacher).

D. Class discussions

The student teachers took advantage of some situations and facts that occurred during the music classes as an opportunity to discuss with the students, making them reflect on their positions and about values.

"I arrived to class and start to deliver the flute to each student. Within the flutes comes a stick like a baton and in the end a little cloth to clean the flute inside after use. The student P. looked desperate to see that the color of his cloth was pink and said: "Oh no teacher, please change it! I don't want this. Look, it's pink!" I stopped and discussed with them: Is pink was a boy or a girl color? The answers made me more relieved as many girls said they like blue and love to play with "boys toys" like Batman, and they also love pink, and they're no "less-girls" because of that. After the discussion, they realized that pink is just a color and people are the ones that set values to it. The student P. realized that he was wearing a pale pink T-shirt and finally agreed that the color doesn't matter that much. He kept the flute and apologized for his attitude" (Field Journal from Raíssa, trainee teacher).

According to Delors (1996), education must contribute to the total development of the person - spirit and body, intelligence, sensitivity, aesthetic sense, personal responsibility, spirituality. Every human being should be prepared to elaborate autonomous and critical thoughts and to formulate his/her own value judgments, so that he/she can decide for himself/herself how to act in the different circumstances of life. By developing this attitude of empathy at school is very useful for social behaviour throughout life. Teaching young people to adopt the perspective of other ethnic or religious groups can prevent misunderstandings that generate hate and violence among adults.

"Today a student was disrespectful to me with an inappropriate comment. After class we talked about her behavior. I confess that today I asked God for strength and wisdom to deal with this situation in the best possible way. I believe that dialogue is everything! Sitting, talking, and explaining the situation is the best way to appease any kind of relationship. At the end, crying, she apologized and hugged me. It sounds like a poetic ending, but my soul was so relieved to know that the human values that we work in the classroom are having some effect and that the students are recognizing and using those values" (Field Journal from Sidney, trainee teacher).

The student teachers conducted a diagnostic assessment on values using different kind of activities. This example shows a written activity about definitions for the word 'Respect'.

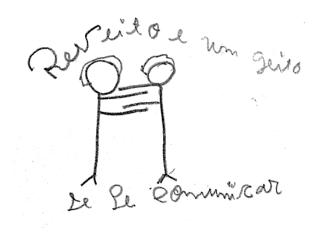


Figure 2. "Respect is a form of communication" P.J. 3th grade

The pedagogical practice in the music classroom enabled the student teachers to develop skills in managing conflicts, which resulted in the understanding of each other, mutual understanding and an environment propitious to learning. Through a value-based methodology in music education the pupils "condence to get on with others, they see the good in others and can empathize with other points of view. Critical and creative thinking skills are developed within the curriculum and empower pupils to develop research and problem-solving skills as they learn to think differently" (UNESCO, 2014, 97).

Results

The diagnostic questionnaire was applied to the 10 student teachers at the beginning of this research. The participants were students enrolled in the music education course of the Federal University of Bahia (Brazil). Four were female and six were male, nine between the ages of 19 and 25 and one student 39 years old.

The first part was to indicate with a number next to each value the degree of importance it has as a guiding principle for their life. The grades were: 1 for *not important*, 2 for *little important*, 3 for *important* and 4 for *very important*. The 18 values listed (Gouveia, 2003) were: sexuality¹, success, social support, knowledge, emotion, power, religiosity, health, pleasure, affection, prestige, obedience, beauty, tradition, survival, maturity, coexistence and personal stability. A definition was given to each value as a way to add a context:

- SUCCESS. Reach your goals; be efficient in everything you do.
- SOCIAL SUPPORT. Get help when you need it; feel that you are not alone in the world.
- KNOWLEDGE. Look for update news on little-known subjects; try to discover new things about the world.
- EMOTION. Enjoy challenging the danger; seek adventures.
- POWER. Have power to influence others and control decisions; lead a team.

¹ For the questionnaire leave out the value *sexuality* because we think that the value *pleasure* could include it.

- AFFECTION. Have a deep and lasting affectionate relationship; have someone to share your successes and failures.
- RELIGIOUSNESS. Believe in God as the savior of humanity; fulfill the will of God.
- HEALTH. Worry about your health before you get sick; not being physically or mentally ill.
- PLEASURE. Enjoy life; satisfy all your desires.
- PRESTIGE. To know that many people know and admire you; when old receive a homage for your contributions.
- OBEDIENCE. Fulfill your daily duties and obligations; respect for the parents and elders.
- PERSONAL STABILITY. Be sure that tomorrow you will have everything you have today; have an organized and planned life.
- COEXISTENCE. Live daily with neighbors; be part of some group, such as social, sports, among others.
- BEAUTY. Being able to appreciate art, music and literature; go to museums or exhibitions or where you can see beautiful things.
- TRADITION. Follow the social norms of your country; respect the traditions of your family and society.
- SURVIVAL. Have water, food and sleep well every day; live in a place with plenty of food
- MATURITY. Feeling that you have achieved your goals in life; develop their full capabilities (Gouveia, 2003, 434-436).

The values that received the highest scores were survival, social support, health, maturity and beauty (40), meaning that all 10 student teachers participants attributed the maximun score 4 - *very important*. Next we have success and affection (37), coexistence (35), knowledge (34), emotion, pleasure and personal stability (30), power and prestige (26). The lowest scores were attributed to tradition (20) and religiosity (11). This possibly indicates that for many young people it's very complex to reconcile philosophy and religion with the concepts of science. Although many of them declare to believe in God¹, they seem to reject institutionalized religions, dogmas, and everything that comes with absolute certainty. Regarding the value *Tradition*, they seem to want to distance themselves from it and to trace their own path, to realize their own discoveries and experiences.

The second part investigated the student teachers' perceptions about the theme of human values in daily school life. Through it, 90% of the students *agreed* and 10% *fully agreed* that they know human values well. Also, 80% affirmed that the school isn't effective in teaching human values in school everyday life. Regarding the practice of human values by teachers, 90% of students disagreed or fully disagreed that general teachers of the school don't practice human values in school everyday life. In addition, 100% affirmed that the teacher's interaction with the student is important in the process of constructing human values.

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¹ According to the research "Portrait of the Brazilian Youth" (Perseu Abramo Foundation, 2005), 10% of the Brazilian youth believe in God without having religion and only 1% is atheists and agnostics.

During the project the trainee teachers built a solid bond with the school's community, demonstrating appropriation of space and good relationship with pupils and the school staff. They expressed that they were very comfortable in and around the school, when they greeted with smiles the students and their families that were there. They were called teachers by the pupils, who saw in them (also students from public schools) the possibility of studying at the university one day.

The bibliographic production was expressive. In addition to the field reports weekly posted in the blog, the student teachers developed activities, teaching materials, games and class plans. They wrote abstracts which were submitted and approved in three scientific events. We had three oral papers presented at conferences, one in our city and two in other state. The students who traveled with the university bus had the responsibility of representing their colleagues, which they did competently. This experience produced maturity on their part.

The performance of the student teachers was essential to increase the quality of music at school. They have made contributions based on their skills such as choir, flutes ensemble, percussion group, and vocal preparation, among others. The events promoted by the music teacher, with the help of the student teachers, were wonderful and moved the whole school community. The playful approach to the theme of the human values captivated the students, who showed more interest, participation and attention during the lessons. Also worth mentioning is the attitude of collaborative work among pupils who did not get along before.

Regarding the classroom results, the student-teachers outlined that the project "Music and Human Values" had a positive and transformative effect on students. They notice the

- Growth of student's self-esteem,
- Bullying and physical aggression between students decrease significantly,
- Musical learning improvement,
- Preference for activities that values teamwork,
- Realization of the importance of the peers to achieve goals,
- Increase of friendship, respect and solidarity between students,
- More significant peer-learrning,
- Reports from the parents show that the effect goes beyond the school environment.

Conclusions and Recommendations

We have the responsibility to change the social and political scenario of our society. Working with human values needs to come out of the hidden curriculum and go to the foreground. Before teaching the history of music, we need to learn the history of each student. Who are they, what do they think, what do they dream, what do they have to say? We must identify the vulnerability of each student, give them a voice, educate for critical and reflective thinking, making them aware of what is happening in our society and in the world. It is necessary to go beyond the walls of the school, that means, include the family and the community in the process.

Facing the challenges of contemporary education, to implement a valued-based methodology in music education, the music teacher needs to develop the professional knowledge, professional skills and also personal and social ethical values. They must respect and value the individual characteristics of students and the cultural diversity in different situations and contexts of teaching and learning music. Finally, the contemporary music teachers must be conscious of their artistic, social, cultural and political role, and committed to promote the ethical values of our democratic society.

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MUSIC TEACHERS' REFLECTIONS ON LEARNING THE COLOURSTRINGS METHOD IN A DISTANCE-LEARNING PROJECT

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Abstract

The aim of this study was to discover how the distance learning environment operates according to music teachers' opinion after the four years of study in "International Minifiddlers Distance Learning Programme". The research problems were to determine what kinds of experiences participant violin teachers had with the International Minifiddlers distance learning environment especially in studying instrumental pedagogy in early childhood violin playing. The other aim of the study was to assess the possibilities of developing the distance learning connections between Finland and China through the first pilot lessons and meetings. Data has been collected through an open questionnaire from music teachers of nine participative countries and through video and live interviews of participant teachers and developers of all participative eleven countries. The data has been analysed with qualitative content analysis. The results show that, according to the participants (music teachers), the "International Minifiddlers Distance Learning Project" works very well in learning instrument pedagogical skills, especially with the combination of demonstrative children's groups. Through this distance learning environment, high quality pedagogy can be studied and offered easily around the world using the Colourstrings method. Furthermore, the first distance learning lessons to China are promising for future co-operation.

Key words: distance learning environment, instrumental pedagogy, Colourstrings method, violin playing

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Introduction

"With the excellent Colourstrings teaching method being excellent and the Minifiddlers perfectly organized technical background team, Geza Szilvay has made it possible for a music teacher to raise a highly skilled violin group anywhere in the world. With his professional presence and personal warmth, Geza has made us forget about the physical distance during the classes."

Igor Arias, Lapland Music Institute, Finland

This article describes the "International Minifiddlers Distance Learning Project" in violin studies developed by Caprice Ltd. In the frames of this Project Professor Géza Szilvay teaches music teachers (especially violin teachers) around the world to teach music with the Colourstrings method.

The "International Minifiddlers" is a distance education project in violin studies developed by Finnish violin pedagogue Maarit Rajamäki and her company Caprice Ltd. The programme began in the autumn of 2012 to offer Finnish top-knowledge in classical music education to everyone-regardless of their geographical location. A new distance learning programme in Helsinki uses some of the latest teleconferencing technology for online and real-time instruction. Violin Professor Géza Szilvay teaches beginning groups in Finland and around the world with the Colourstrings method. Géza Szilvay's Finnish pupils are from the East Helsinki Music Institute. The distance sessions are documented for online broadcasting. Through Minifiddlers video lessons, it is possible to learn the Colourstrings method systematically. In addition to video lessons, the programme offers weekly real-time lessons and a unique opportunity to receive personal instruction from the Colourstrings specialists. The Project has cooperated with the Music and Brain Research Group and the Faculty of Educational Sciences of the University of Helsinki.

The countries and teachers involved in the Project include Alaska (1), Australia (1), Denmark (5), Faroe Islands (2), Finland (8), Germany (1), Greenland (1), Israel (1), Italy (1) and South Korea (1). Connections to China (100) and Spain (6) have been built during 2016-17 and pilot lectures have been presented by Professor Géza Szilvay. The number of participating countries is constantly increasing. In this case study the questionnaire data has been collected from participating music teachers from nine of 11 (and now even 13) participative countries who attended an international meeting in the Faroe Islands in 2016, added to video and live interviews of participant teachers and developers of participative countries.

Since 1997 Maarit Rajamäki has organized many virtual master classes in music in Finland. Internationally a very well-known violinist, Pinchas Zukerman began distance teaching first in the United States and later in Hong Kong, Israel, Canada and Finland. Maarit Rajamäki, Artistic Director of Särestö Academy, organized the first intercontinental master class for violin students via videoconferencing in September 1997 together with the Helsinki Telephone Association. Pinchas Zukerman was pleased with the level of playing of the students in Finland and wanted to continue co-operation. Master Vision International and the Manhattan School of Music in New York became

partners in the USA (Rajamäki, 2007). The co-operation has continued since 1997 with many multipoint master class sessions taking place via videoconference.

Maarit Rajamäki, the founder of Caprice Ltd, was a pioneer in creating high level musical distance learning environments in Finland. Nowadays the company provides expertise and services on distance teaching and consultation on the technical execution of distance classes in music. The participants and clientele are music institutions, universities, music teachers, musicians and broadcasting companies around the world. Many young talented artists have participated in their master classes. The company has arranged distance teaching master classes with many famous artists such as Hagai Shaham, Yuval Yaron, Gary Hoffman, Monica Groop and Ralf Gothóni. The master class teachers in violoncello have been Gary Hoffman and Alexander Rudin. The classes were point-to-point or multipoint synchronous (real-time) distant teaching sessions between many different countries or areas (e.g., in Finland (Helsinki, Oulu, Levi, Ylläs, Olos, Rovaniemi and Sodankylä); Israel; Sweden (Piteå); Greenland (Nook); South Korea (Seoul); Japan (Tokyo); Australia (Brisbane); Canada (Ottawa) and Norway (Tromsø) (Rajamäki, 2007; Ruokonen et al., 2013; International Minifiddlers, 2017).

Särestö Academy, Caprice Ltd and Virtuosi in Kuhmo, Finland also organized asynchronous violin courses. The method was simple: a student's performance and some questions about technique or music style were video recorded and sent by e-mail to Pinchas Zukerman. Zukerman then sent his video recorded answers by e-mail (Rajamäki, 2007). Rajamäki has also organized the distance learning environment of International Minifiddlers. This article studies these master classes taught by Finnish-Hungarian Professor Geza Silvay using the Colourstrings method. During the distance teaching sessions, violin teachers learn to use the Colourstrings method and children learn to play the violin by using this method.

The aim of this study is to describe violin teachers' reflections and experiences after studying the Colourstrings method together with their pupils in a distance learning project during four years.

Colourstrings Method

The base of the Colourstrings method comes from Hungarian music pedagogue Zoltan Kodaly's way of teaching music. The Colourstrings method can be seen as an extension of the Kodály philosophy: everything begins with singing to develop inner hearing. Colourstrings values the role of play and imagination. The Hungarian founder brothers and music pedagogues Géza and Csaba Szilvay have developed this unique Colourstrings method for instrumental learning; in 40 years of successfully teaching this method, they have further developed and refined it.

The Colourstrings method creates a firm musical foundation for a child to learn music enthusiastically. This method is developed to start at a very early age (c. 18 months) inviting a child to a playful, multisensory musical journey. In music play school, singing, body percussions and having fun together are in focus without realising that the songs used in the kindergarten age have been carefully composed to explore and introduce different musical concepts: rhythm, pitch, melody, dynamics, tempo, character, form and style in an enjoyable but structured way. In this child centred method, instruments and the instrumental teaching are invited to meet the child's need. The aim of early

childhood music education is to develop the child's intrinsic understanding and love of music. At the pre-school age (around six years) children are learning to sight sing, along with the basics of reading and writing stick notation. This is a time they can choose an instrument to learn more about music. In instrumental learning, children are encouraged to find the same familiar melodies that they learned in music play school or music day care. This engages them in learning and gives them confidence and a feeling of success from the very first time they pick up their new instrument. From the first instrumental lesson children are immediately encouraged to perform and improvise while reading and writing musical notation. The method uses multisensory pedagogy by involving many senses in learning a new idea in music. To teach more complex notations colour and picture symbols are used. With the guidance of a music teacher, children learn to develop their instrumental technique, musical hearing (with the help of relative solmisation) and understanding (music theory). Musical emotions occur in equilibrium all the time: "To see and to hear go hand in hand" (Colourstrings, 2017). This early instrumental learning differs from the Suzuki method, which is based only learning by hearing and imitating. In the Colourstrings method musical writing and reading are connected from the very beginning with playing. Colourful notation pictures, playing and reading movements are connected with children's intellectual processes (Ruokonen, 2016).

Professor Géza Szilvay, born in Budapest, Hungary, studied the violin at the Béla Bartók Conservatory and Pedagogics at the Budapest Music Academy. Professor Géza Szilvay is the founder of the internationally renowned Colourstrings teaching method which at the moment includes 42 publications and a distance learning programme. Szilvay's way of teaching the violin soon had a strong impact on musical education in Finland and many of his students became professional musicians. Before the distance learning programme began, he inspired Finnish families and especially children with his music educational television programme "Minifiddlers in Musicland", which was developed in the 1980s by the Finnish Television YLE. Professor Szilvay has developed the Colourstrings method step-by-step starting from the very beginning of teaching small pupils and adding exercises constantly. He integrates in his pedagogy the development of musical hearing, violin technique, musical intellect and the child's emotional world with the purpose of reinforcing of perception through joint functioning of the senses.

From the beginning he added group teaching to individual guidance and established string orchestras. The Helsinki Junior Strings Orchestra, founded in 1972 (now known as *The Helsinki Strings*) has become renowned after 38 international concert tours and 28 published recordings under the Fuga, Finlandia, Apex and Warner labels (Colourstrings, 2017). Professor Szilvay has given over 200 keynote lectures all over the world including Beijing and Chengdu Conservatories.

Colourstrings and the Szilvay Foundation organize international music teacher training programmes in both early childhood music education and instrumental teaching using the Colourstrings method. Instrumental teacher training is a three-stage training programme to become a certified Colourstrings teacher of violin, viola and cello. Participants will be issued an international Colourstrings Certificate on successful completion of all three stages of the extensive training programme. Courses for kindergarten music teachers are organized especially in the United Kingdom. The Kindergarten Certificate course is an introduction to Colourstrings and Sol-fa, and music education for children up to five years of age. In workshop-based music

educational courses, kindergarten music teachers learn to develop their musical skills learning a new Colourstrings song repertoire (Colourstrings, 2017).

From Novice to an Expert via Distance Learning

Much researches (Sherbon & Kish, 2005; Walls, 2008; Dammers, 2009; Groulx et al., 2010; Kruse et al., 2013; Ruokonen et al., 2013, 2016) prove that observation-based distance learning where a master teacher is teaching instrumental playing to a student in a real-time lesson is effective when it is observed and learned in action. Hebert (2007) listed five challenges to online music teacher education:

- There is prejudice regarding the legitimacy of online degrees;
- The coordination between distance education and music departments/conservatories has to be well planned;
- The quality of education has to be the most important not the pressure to maximize profits;
- The management of adjunct music instructors as well as student behaviour and mentor services has to be carefully planned;
- The management of student behaviour and provision of student services.

Some promising research results show how training and learning issues might be enriched through online activities aiming at the harmonized and more holistic adaptation of cognitive, physiological and neural processes. Especially the evidence of experience-based adaptations in training programmes where a strong connection of sensorimotor and auditory processing is required in learning and performing comes from the domain of music. Assembling, storing and constantly improving complex sensory-motor programmes through prolonged and repeated execution of motor patterns under the controlled monitoring of the auditory system are essential in practising an instrument (Gruber et al., 2010). Some studies have reported strong linkages between auditory and sensorimotor cortical regions because of many years of practice. According to these results, the learning process is very holistic including watching a video (Bangert et al., 2006). The activation of motor co-representations occurred in trained pianists not only by listening to piano tunes, but also by observing a pianist's finger movements while watching a video. Therefore, for musical practice careful demonstration of the instrument may enhance learning (Bangert & Altenmüller, 2003). According to these studies, observation increases and motivates learning and practising musical skills. In musical training, a teaching method based on demonstration and imitation is widely used at all levels and would appear to be particularly effective in cases where music teachers demonstrate an action or series of actions that are carefully and methodically observed by the students. In this case, principally the same brain regions are active as if the imagined action is performed: the primary motor cortex, the supplementary motor cortex and the cerebellum (Kuhtz-Buschbeck et al., 2003; Gruber et al., 2010). Practising through listening and observation can be considered as special cases of mental training.

According to Habib's and Besson's (2009) important review study concerning early education, the intensive learning of music was essential and associated with neuroanatomical distinctive features in several brain regions, which were all more or less involved in gestural motor skill development. The Colourstrings method has been

designed through experts' experience to be used with students starting at an early age; now there is the evidence that brain plasticity can be found more clearly if practice begins early. A 'sensitive period' may exist, at around seven years of age, beyond which music-induced structural changes and learning effects are less pronounced.

This article opens a new way to develop music teachers' instrument pedagogical expertise of educating children to play the violin. All the music teachers who participated had studied pedagogy during four years in a distance-learning connection. They were professional violin teachers who wanted to learn to teach with the Colourstrings method. They were novices with this new method, as well as with its Kodaly-based music pedagogical background. Thus, the violin experts were studying to become experts in using the Colourstrings method as a tool of teaching especially with children who had not yet started school, this means in Finland 7-year-old children.

In this article the experiences of the teachers' learning process are studied. Dreyfus (2004) has developed a five-stage model of learning from novice to expert. The first stage is a novice stage where learning begins. At the beginning the process begins with the introduction of the task environment and in this case (learning Colours Strings method) to observe and recognize the master teacher in action. The learner is given rules for determining the actions based on these features just like a computer following a programme. The second stage is called the advanced beginner stage. During this stage the novice gains experiences by copying real situations and begins to develop an understanding of the relevant context and meaningful additional aspects of the situation or domain. According to Dreyfus (2004), at this second stage learning can be carried on in a detached, analytic frame of mind as the student follows instructions and given examples. In third stage, experience grows and the learner is able to recognize the number of potentially relevant elements and procedures of the process. In this third stage the emotional involvement seems to play an essential role in switching over from the fears of mistakes to commitment of practising and teaching better (Dreyfus, 2004). Through experiences and by practising, the learner becomes increasingly emotionally involved in a task. If the detached stance of novice and advanced beginner is replaced by involvement and the learner can also accept the anxiety of choice, he/she is set for further skill advancement. Dreyfus (2004) calls this fourth stage of learning proficiency. In this fourth stage both positive and negative emotional experiences will strengthen successful perspectives and inhibit unsuccessful ones and the performer's theory of the skill, as represented by rules and principles, will gradually be replaced by situational discriminations. In the last stage of learning, the learner becomes an expert (Dreyfus, 2004). The expert not only sees what needs to be achieved, but also decides how to do it. In unfamiliar processes, the expert is not solving problems, calculating or thinking about the rules. The expert is just doing what normally would work. With vast experience and practice, it normally does work (Dreyfus, 2004). In this article this model is used as a background for analysing violin teachers' experiences in their fouryear learning process.

Research Problems and Methods

The aim of the study was to learn how a distance-learning environment operates according to violin teachers' opinions after the four years of study. The research problems were to examine what kinds of experiences participant violin teachers had

about the International Minifiddlers distance-learning environment, especially in studying instrumental pedagogy in early childhood violin playing.

The Minifiddlers pilot project survey for the pedagogues who participated in the Minifiddlers programme during 2012-2016 was completed in the summer of 2016. Altogether, there were seventeen participating violin pedagogues and 60 children participating in their violin groups or individual teaching.

Data has been collected through open questionnaire from seventeen music (violin) teachers from nine participating countries, who attended an international meeting in the Faroe Islands in 2016 (Australia (1), Denmark (4), Faroe Islands (2), Finland (5), Germany (1), Greenland (1), Israel (1), Italy (1) and South Korea (1), and through video (3h 55 min.) and live interviews (2 h 20 min.) of all participant music teachers and developers selected teachers' and developers' interview sections in all interview data (video interviews 14th June 2014; 13th June 2015; and live interviews 15th June 2017 and 4th August 2017). Both questionnaire and interview data has been analysed with qualitative content analysis.

Music teachers were asked to reflect upon their experiences and pedagogical learning during the four-year Minifiddlers pilot programme. The research problems were to find how a distance-learning environment worked in learning instrumental teaching skills; furthermore, we wanted to know what the pedagogical impacts of this distance-learning project were on their work, and how they reflected upon and described their pedagogical development and knowledge of the Colourstrings method during the four-year period. During the video interviews the teachers were asked their experiences about team teaching in distance learning connection, as well as their opinions about the learning benefits or the challenges in it.

The research aim was to find out what was the most important learning experience or discovery in violin pedagogical thinking they have learned during these master distance lessons. The other aim of the study was to discover the possibilities of developing distance-learning between Finland and China through the first pilot lessons and meetings.

The abbreviation in this study:

- a) Home country of a teacher: Australia=A, Denmark=D, Faroe Islands=FI, Finland=F, Germany=Ge, Greenland=Gr, Israel=Is, Italy=It and South Korea=SK;
- b) Type of a data collection: V=video interview; L=live interview, and Q=open questionnaire related the data examples used.

Results

According to the results, music (violin) teachers found the distance-learning environment very convenient for learning the Colourstrings method. Their experiences were mostly positive and they mentioned many advantages of using a distance-learning environment especially the possibility to be in contact even from long distances and become familiar with the expertise of Professor Szilvay. Finnish education and learning ethics were also valued and respected as participants noted in an assessment of the advantages of the Colourstrings method:

FI,Q: Gaining knowledge that is otherwise inaccessible;

A,Q: Opportunity to receive high class education despite geographical distance;

SK,Q: The videos sent in advance allowed a good preview of instruction with a student... The audio and video from Finland during the lesson was always excellent;

Ge,Q: This was the best way to study closely with Géza;

Gr,Q: Staying in our environment and still under the influence of a master teacher;

Is,Q: Supervision through the lesson process;

F,L: Meeting goals on a regular basis;

De,V: Sretching the intellect of children and opening unforeseen opportunities in teaching;

Ge,V: It has been wonderful to connect with the greatest pedagogue and musician, and to be connected with the high standards and respect that surrounds Finnish education and learning ethics.

Music teachers mentioned also some disadvantages in using distance learning, which mostly related to technological problems or lack of high quality technical equipment in their own countries or time differences between participating countries. Among the comments we received were the following:

A, Q: There were connection problems, sometimes the audio and sound was out of synchronization;

Gr,Q: [There is a need to have] high-class technical equipment available; people are dependent on Internet connections;

FI, Q: Sometimes we had Internet problems;

I,Q: We had technical problems that really hindered some sessions;

A,Q: I occasionally experienced difficulty with technology or connections on my end... Remembering that daylight savings time occurs at a different time among different countries was sometimes a challenge for me;

Ge,Q: The stress of a player to produce a clear and 'perfect' sample prevents the spontaneity of 'learning mistakes'.

All participants evaluated the content of the programme and the quality of the video lessons as 'good' to 'excellent'. All evaluated the pedagogical effectiveness of the programme as 'excellent'. The length of the real-time lessons was evaluated mostly as 'good', as this participant noted:

D,Q: Generally, it's good, just in case up to the age of pupils. It is helpful that Géza endeavours to also praise the teacher... When music teachers were asked about the pedagogical impacts of this distance learning project to their work or school they responded very positively concerning especially improvement of their own instrument pedagogical skills and Colourstrings knowledge. The benefits of the project to their school were also mentioned:

F,L: *This* [project] raised the level of musicianship skills;

A,Q: Excellent for improving teachers' confidence and understanding of the Colourstrings material;

Gr,Q: Personally, for making me more demanding and focused as a teacher and more able to figure in what order to teach material;

FI,Q: The main benefit is that Colourstrings has become highly visible at our school, and that more and more people are aware of its existence and brilliant pedagogical vision;

SK,Q: Raised awareness and interest in violin playing among pupils and parents... Having lessons at school allowed student to participate in this world class programme without missing his classroom instruction. It also helped our administration to realize that there are many great benefits to distance learning.

Some critical voice was also given especially to the school administration to notice the new pedagogical possibilities given to them through distance learning connection:

D,Q: I have felt that these four years have been the most important long term project that has taken place at X. It has, however not been viewed a single time by the most influential people (headmaster, Head of Strings, violin professors etc.). Instrumental pedagogy is not regarded as something important. Thus, the understanding of the whole mind-set being given children the best, is somehow lost at X. I do, however trust that this high-quality approach somehow has made a difference.

Music teachers mentioned several benefits of the programme for their violin pupils, especially concerning their holistic and musical learning, self-confidence and the possibility to have contact with a master teacher through the distance-learning connection:

Gr,Q: They were 'challenged' and 'tested' each week, plus they got more lessons, which combined has made them into better players, who are all able to cope well in stressful and demanding situations and in other aspects of life, I am told by the parents;

FI,Q: Excellent progress... They learned a lot from Géza and it was great that a wonderful pedagogue such as Géza could monitor their progress;

Ge,Q: They have grown in confidence and ability throughout the project; one pupil has grown up with three brothers who have studied strings. Being exposed to Géza's teaching method has provided him with a solid foundation in violin study. It has also given him a sense of individuality. He takes great pride in the fact that he studies with Géza and has already surpassed his older brother who began his violin study a year in advance of him;

De,Q: Students have more tools to handle specific problems and more individual attention;

Is,Q: They have tools to plan more interesting practice material and there is a broader understanding in primary level students;

F,V: The programme has spurred my own ideas of how to help learning;

FI,Q: Students have the courage to demand more lessons a week.

Music teachers also reflected very positively on the impact of this four-year pilot programme to their work:

FI;Q: This has been my primary education in teaching violin. This project was/is, pedagogically speaking, everything to me;

D,Q: Good experience in working with an ensemble;

A,Q: My understanding of the method and knowledge of the material has greatly expanded;

F,V: Having lessons at my place of work allows me to participate in them. My job is not flexible enough for me to take time for traveling to another location for lessons. Through the progress of pupils, I could have confidence again in the importance of learning the basics in violin playing and it helps me to improve steadily as teacher.

They also reported about some new pedagogical ideas and discussions that they had with their colleagues:

A,Q: The project gave me more pedagogical ideas to share with other colleagues.

When asking about their experiences in learning the Colourstring method and progress in learning for each year of participation, we found that they gave very similar descriptions of how they developed from beginners to professional Colourstring teachers:

D,Q: I learned very much. It's much more intensive and an intimate experience that helped me really to understand how to use these materials.

In their answers about the developmental process in using the Colourstrings methods, five stages could be noticed according to the Dreyfus (2004) model. All participants described themselves as beginners and advanced beginners in the Colourstrings method during the first two years. The first-year experiences were described as a novice teacher learning a new pedagogical tool. The learning process began by following a master teacher's pedagogical lessons through distance learning so that the beginners could follow and observe without the desired pedagogical skill. At this stage, the beginner teachers were given pedagogical tools for determining the actions in teaching situations. At the advanced beginners' stage, they began to copy real situations and use video material and develop their understanding of the method in different situations. This was very engaging for their learning process. Their descriptions of the first year's learning experiences seemed to be the most important for engaging them to learn more, their reflections concerned mostly their awakening awareness of the new pedagogical ideas that Professor Szilvay gave them:

A,Q: For me it was the first lessons. Experiencing the inclusion of oral training and general musicianship from the first lesson, combined with the very thorough development of independent fingers, was an eye-opener;

Ge,Q: During the first year I learned the solfege system of Colourstrings;

D,Q: The guided movements, the chamber music, the progression from unconscious to semiconscious was important;

FI,Q: I learned that working together as a teacher/child/parent team is very important;

Is,Q: The guided movements, the chamber music, the progression from unconscious to semiconscious was important;

A,Q: I learned by harmonics to hear the intonation;

I,Q: I learned teaching with a guided bow, to make that sound from different angles, more ideas for setting up, getting pizzicato and harmonics to work for many different hand types;

Gr,Q: It was very important to establish the fast pace for a young child and still go in depth.

During the second year they noticed the learning in their pupils. They also noticed that they could learn more positive pedagogical methods and received feedback from it:

G,V: There was a moment early in the second year when I realized that my own students were able to correct their intonation based on an understanding of solfege; that was a highlight for me;

D,V: During the second year, I learned to be more enthusiastic and encourage my students with positive feedback which is vital to keeping them motivated when things get challenging;

A,Q: I learned teaching secure intonation.

By practising through experiences, they became more and more emotionally involved in Colourstrings pedagogy. The feeling of being an advanced beginner was replaced by greater involvement and they could also accept the anxiety of choice for further pedagogical skill advancement and real-time situations.

During the third year many of them reported their development towards expertise, but were still on their way and learning new pedagogical ideas especially with larger groups and conducting:

D,Q: In our third year, it was important to study a familiar piece of music while spending time learning technique through exercises;

F,Q: Our first big group lesson, which didn't go well, was a revelation. I learned a lot about conducting children and how to rehearse with larger groups; I was beginning to get sound colours and phrasing.

In the so-called proficiency stage, both positive and negative emotional experiences strengthened their successful perspectives and inhibited unsuccessful ones and their pedagogical knowledge and skills were growing so that they were ready for more spontaneous situational interaction with their pupils. In the last stage of learning, they described themselves to be ready for teaching with the Colourstrings method. They realized what needs their pupils had and found solutions and pedagogical tools to help them. They had learned how the method works by learning new techniques or skills. They had also learned to interact with different personalities and larger groups. During the last year most of participants reported that they had developed and become "almost experts in the Colourstrings method" and said that they were going to use the method especially with small pupils and beginners. The learning experiences from the fourth year were connected mostly to the joyful ensemble learning experiences and conclusive methodological details. Some of the areas they mentioned included the experience that children can do this on a wonderful level; the technique of bow speed teaching and how to enjoy it; many more tools for colours; ensemble work; using yellow pages, rhythm and simple chamber music and violinist topics that cover all important aspects.

As music (violin) teachers learning a new instrument pedagogical method, they wished to receive both private and shared feedback from the master teacher. All music teachers, parents and children respected and valued Professor Szilvay's pedagogy. The music teachers valued Professor Szilvay's skill to mentor and guide them so that they could maintain their own role as a violin teacher of their own pupils during the real-time sessions:

A,Q: Both private and shared feedback is needed;

Ge,V: Yes, Geza was a fantastic teacher who never seemed to hold back advice and always allowed us to ask questions if we needed clarification. He was gentle and kind to every child, even when it wasn't his/her best lesson;

FI,Q: Any issue encountered with technology was an issue on my end. Geza's technicians were always very patient and helpful if I had issues with our connection;

It,Q: Thank you Geza and the whole team for the warm-hearted work;

D,V: Geza had the capacity of working as a highly respected master/tutor while at the same time maintaining the authority of the local teacher in the eyes of the pupils.

Some music teachers proposed the possibility for further consultation or mentoring:

G,V: It would be good to continue with real-time supervision/consultation on a monthly basis;

F,L: It would be nice to make another programme elsewhere in our country.

Project director M. Rajamäki was interviewed during the summer of 2017 concerning the cooperation in China. The aim was to determine the main challenges in spreading the new European music pedagogy into Chinese culture. First, a book has been published in 2017 in China and the Music Publishing House in China is translating it. Minifiddlers have presented lectures in 2013 in Shanghai and Chengdu, in 2015 at the Beijing Conservatory, in 2016 Beijing and Chengdu. Professor Szilvay has lectured at the Beijing Conservatory to 25 violin pedagogues and co-operation with a city music school project in Chengdu and with Zhenjiang city schools has been developed. In these city projects the instrumental music lessons are at schools in co-operation with music institutes and every child is given an instrument to practise at home. According to Maarit Rajamäki, the establisher of the *International Minifiddlers Project*, there are some important aspects to be considered when developing distance-learning connections between Finland and China.

First, she mentioned the adaptation for the Chinese music school system:

Maarit Rajamäki: We have to develop the Colourstrings method together with the Chinese nine-grade music school system, which is different from the Finnish music school curriculum and this is very important for the usability of this method in Chinese music schools.

Secondly, she mentioned the attitude towards the distance-learning environment in China:

Maarit Rajamäki: This seems to be the same everywhere: people have to become acquainted with this kind of learning. Teachers and decision makers need experiences about this kind of learning and knowledge sharing. Distance-learning in music teachers' education is a new in way to learn in China and it is good that the concept and videos have already been tested in 11 and soon in 13 countries.

Thirdly, she mentioned the language and translation:

Maarit Rajamäki: A Chinese interpreter is better to be in Helsinki than in China during distance-learning connections. Chinese material, piloting, networks, communication and education are very important for beginning a distance-learning project.

Pilot lessons are important and have already been done:

Maarit Rajamäki: The first distance lessons to China are promising for the future co-operation. Parents and music teachers in China are very interested in early childhood music education and good learning results.

Maarit Rajamäki stresses the meaning of the visits that create good co-operation and trust.

Maarit Rajamäki: Everything has to be planned so that it is serving the Chinese music educational system and giving some good pedagogical practices to use and develop in co-operation with them. In China they are very interested in developing Colourstrings pedagogy in early childhood education and kindergartens. Parents are also willing to help to practise violin playing with their children. In the Colourstrings method the basic techniques are learned in the beginning and that's why the early childhood music pedagogy is very important. When basics are learned well, the further learning is easier.

The co-operation in developing distance-learning and spreading the Colourstrings method in China is continuing and having more concrete forms and co-operative music institutes and cities in the near future so China will soon be joining "the international minifiddlers' family".

Discussion

Nowadays there is nothing new about distance learning in music teacher education. It has become a reality and has enormous positive potential to be developed according to the needs and interests of international and individual students. In the Colourstrings distance learning connection, students were instantly connected with a network of colleagues who resided in many different locations around the world. In the field of music education this is a wonderful way to form new relationships and share experiences and knowledge. In the Colourstrings project some live meetings and conferences were also organized. Thus, the project provided an ideal platform for collaborative and comparative co-operation in music education.

The results show that, according to the participant music teachers, International Minifiddlers distance learning project works very well in learning instrument pedagogical skills especially with the combination of demonstrative children's groups. Through this distance learning environment, high quality pedagogy can be studied and offered easily around the world through the Colourstrings method. The first distance lessons to China are promising for the future co-operation.

International Minifiddlers activity is also a high quality example of entrepreneurship in the field of music education. In the future, it is essential to discuss about the accessibility of this kind of pedagogy for all users. According to Kodály's principle *Music belongs to*

all, distance learning connection works very well, but the accessibility to the internet lessons should be offered to all violin teachers through some supportive decisions of the educational policy in every participating country. There are also many culturally sensitive aspects which have to be taken into account when using the Colourstrings material internationally, e.g. musical scales or lyrics. International co-operation needs always intercultural sensitivity and knowledge about participants, which can be best promoted by open collaboration with music teachers from different countries and cultures.

In conclusion, the potential of distance learning programmes will grow radically in the future education and this is changing the way of sharing the best pedagogical knowledge and practices in any field of education. Distance-learning environments also invited educational researchers to study the design and results of learning in global networks.

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EXPERIENCE OF USING DIGITAL LEARNING MATERIAL IN GYMNASIUM MUSIC CURRICULUM IN ESTONIA

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Abstract

The aim of this article is to report on testing with high school students (aged 17–19) chosen digital learning material composed for the Estonian state (EU funded) project "Digital Learning Resources for High Schools" (2017–2018, DÕV) led by Tallinn University (TLU) Institute of Digital Technologies (DTI) Centre for Educational Technology. The testing took place in high schools outside of Tallinn Spring 2018 (two 12th grade (N=22/18; two 11th grades N=13/15) taught by two experienced music teachers who have been open for new and experimental approaches. The theoretical background of the article is e-text theory (Rhodes & Rozell, 2015) and it introduces the application of the principles of the didactic method by M. David Merrill: Tell, Show, Ask, Do (Merrill, 2002, 2007; Mendenhall et. al., 2006). The material based on Estonian National Core Curriculum (RÕK, 2011) topics has been mainly compiled by a team led by the authors of this article. The empirical survey (mixed research method) aims to get to know, how the teacher and the students have used the material so far and what the problems with a variety of e-text based learning materials have been.

The preliminary results encourage the compilers that the created material is generally already well produced and positively received by the students. The study shows that the mean for suitability of the learning material was within the range of "eager fits" or "eager suitable". Although the study shows that the compilers of the learning materials do not know enough about the students' abilities to manage with Internet and e-texts. For further improvement of the material it is advisable to involve some students in order to obtain information about compatibility of the learning material and school students' managing skills. The innovation of the new digital learning material lies in the variety of the tasks and enables open access to internet resources. A novelty of the digital learning material can be seen also in the numerous options for group work, the possibility to proceed more

profoundly according to students' interests, and the possibility for the students to express their own opinion.

Keywords: Digital learning resources, e-texts, group and individual learning, teaching strategies

Introduction

The aim of this article is to report on testing with high school (gymnasium) students (aged 17-19) chosen e-Text based digital learning material composed for the Estonian state (EU funded) project "Digital Learning Resources for High Schools" (DÕV¹) (see DÕV, 2017–2018) led by Tallinn University (TLU) Institute of Digital Technologies (DTI) Centre for Educational Technology². The testing took place in two high schools of Tallinn area (March–May 2018) in two 12th grades (N=22/18) and observation was carried out at two 11th grade lessons (N=13/15) taught by experienced music teachers.

The theoretical background of the article is e-text theory (Rhodes & Rozell, 2015) and it introduces the application of the principle of the didactic method central for the whole DÕV project developed by M. David Merrill, which has been derived from Instructional Design Theories (Merrill, 2002) and is called an instructional design portfolio based on a problem-centered approach to apply a task-centered instructional strategy (Mendenhall et al., 2006; Merrill, 2007).

The methodology of mixed method research is applied to gain and analyze the empirical data for this article. This is a survey testing work-in-progress learning material in the authentic school context to gain feedforward input in order to improve the material. The empirical survey aims to elucidate, how the teachers and the students have used the material so far and what problems with multiple types of e-text based learning materials have been seen. As a kind of hypothesis it can be assumed that the material is already well developed and reveals no relevant content or technical problems. Also the material is well understood and interesting for the students technically and contentwise.

The tested learning material has been composed by three authors³ and consists of eight chapters with structured Learning Objects (further LO-s, see below Merrill's principles) covering topics of Estonian music history and the topic of impressionism from the Estonian National Core Curriculum (RÕK, 2011).

As follows we explain the theoretical background used to compose the digital learning materials.

¹ The abbreviation DÕV means the Estonian title of the project "DigiÕppeVaramu – keskhariduse e-õppe laiendamine" (in English "Digital Learning Resources for High Schools" the extended part of the title means: enlarging e-learning in secondary education).

² Codes of the project, TKA17056A, TKA17070A, TKA17071A, TKA17072A "Digital Learning Resources for High Schools (8.05.2017–31.10.2018)".

³ Chapters compiled by G. Lock (author and methodologist), O. Getman (author), and J. Vihterpal (author). Advisor, methodologist and quality control by T. Selke.

E-text Theory

The principles of creating Digital Learning Resources are based on e-text theory (Rhodes & Rozell, 2015). E-texts can be downloadable and printed (except Ask LO-s in DÕV project) or web-based using a computer or smart devices. E-texts exist in two main formats: *page fidelity e-texts* (PDF format) and *reflowable digital e-texts* (facilitate features like interactive media, embedded quizzes, hyperlinks etc.) (Rockinson-Szapkiw, Courduff, Carter & Bennett, 2013). LO-s in DÕV project is based on these principles.

Effective e-Texts (as digital curriculum material) should be always linked to specific learning theories. Traditionally used learning theories – behaviorism and cognitivism – are neither sufficient to explain what digital materials enable to do nor fit the requirements of today's and next generation's students.

Behaviorism assumes measuring the outcome (correct/incorrect) after training. To some extent such measuring is needed for the estimation of formal knowledge (see below **Ask** LO-s description). Cognitivism is focusing on the memorization (and the way of gaining of information) and practicing of knowledge to achieve more profound acquisition of knowledge (also **Ask** LO-s enable this, see below). Reflowable digital etexts support in its essence deepening the owning of the material and, in addition, according to surveys (Rickman, Von Holzen, Klute & Tobin, 2009), the students prefer e-Textbooks as more convenient for accessing and retrieving information. Estonian surveys (Selke, 2017b) have also shown deeper interest of boys in the activities with computer tools and smart devices in music lessons.

Didactic Principles to Organize LO-s

The chapters of the learning material are composed as digital learning objects based on Merrill's categories: **Tell, Show, Ask, Do** (Merrill, 2002, 2007; Mendenhall et. al., 2006). The philosophical base for the actual national curriculum (since 2011) has been praxial philosophy for music education (Selke, 2015) stressing the process of learning by doing. This has a straight link to the cognitive learning theory, and therefore the importance of Do-exercises has a core meaning for the project.

Tell and Show LO-s are presented either separately or together. The latter is often necessary, because it is more comprehensible to present specific visual or sound examples in the flow of the narration. Tell objects use generally a simple text format to introduce central terms, people, genres, styles and periods in a chronological order.

Show LO-s is structured either **chronologically** or through presenting the development of the **orchestra**, **composers**, **phenomena** (mentality) as well as through **musical pieces or texts of songs** with further links (e.g. websites, Youtube). Most of the **Show** LO-s are planned to be presentable to the students also in lecture-room settings (on the wall). This is the reason why the authors have used (interactive) Picture, floating Timeline or Slide Show tools (see more below).

Ask LO-s aim to enable the students themselves to test (tasks on three difficultieslevels: *-***) independently and with immediate feedback based on the Tell and Show

material previously studied. Ask tasks can be shown in a lecture-room setting on the wall, or solved independently on smart devices (pads, smart phones).

Do LO-s are mostly activity tasks, which are done either individually, in pairs, or as group work. According to national curriculum (RÕK, 2011) and new *Estonian Lifelong Learning Strategy until 2020* (Heidmets, 2017), the self-expression ability, entrepreneurship, team-work and problem-solving skills are seen as the main objective in renewing education and national curriculum. The innovation of DÕV materials lies, beside the technological and interactivity means, mainly in the new visions in educational policy (ELLS, 2014). **Do** LO-s incorporate all those previously mentioned components. Do-tasks enable the learners to use the gained knowledge and skills from both music lessons and **Tell+Show** LO-s for practical music-making in groups and for creative purposes (creative implementation, self-expression, self-directedness, entrepreneurship, role plays, visualizations etc.) (Selke, 2017a, 2017b). Their aim is also to take the pupils partly away from the digital environment.

The six tested chapters on music history include usually one Do-task. Some of them are multileveled and can be done in parts and/or gradually in accordance to the diverse knowledge or skills of the students. The two tested chapters on composers include generally three types of Do-tasks:

- Type 1: listen to a self-chosen composer's piece and write a guided review which characterizes shortly the composers, the piece and the listening experience.
- Type 2: discuss in a small group the similarities and differences between the composers of the decade.
- Type 3: watch a film or listen to a radio program about a relevant composer and discuss it later in small groups, asking each other to provide three most important ideas and three questions concerning the composer.

The digital H5P (H5P, 2018) platform tools enable to create a variety of different types of interactive tasks as following:

- **Tell** static text in *Column* (the name of the tool-format) e.g. texts, links, pictures. If combined with Show it is the basis for every other tool;
- **Show** static and interactive tools with low level of communicability, illustrating and demonstrating using tool-format *Column, Accordion* (texts, links), *Course Presentation* (including other tools if needed), *Image Hotspot, Image Juxtaposition, Video*;
- Ask interactive tasks with high level of communicability and immediate correct/wrong feedback using tool-format *Drag the Words, Fill in the Blanks, Single Choice, Find Image Hotspot, Multiple Choice, True/False Question* (embedded into Column), *Quiz* (Question Set), *Summary, Mark the Words, Flashcards, Memory Game, Personality Quiz, Interactive Video;*
- **Do** static text or structured text (fill-in interface) for solving practical tasks using tool-format *Column* (texts, links), *Documentation Tool*.

Most of the H5P tools are **convergent** in their assessment structure, but there are some tools enabling also **divergent** solutions and creativity (Personality Quiz, Documentation Tool) stressed in new curriculum trends. The new digital learning

material gives the music teacher the flexibility to combine previously existing, gathered link-based and self-composed materials together into one unit.

The Learning Objects (LO) embrace the Impressionism topic as well as eight topics on Estonian music: Song festival tradition development since 1869, Orchestra development since 20th century beginning, St. Petersburg Conservatory role at the turn of 19/20th century, National sound language development 1920/30ies, Examples of modernism 1910/60/90ies, Losses of national culture 1940–1955, Composers started in 1960ies, Composers started in 1970ies.

Method, Procedure and Sample

The method used here is a process research, a feedforward survey to test chosen chapters with high school 11^{th} and 12^{th} grade high school students. The survey used mixed methods:

1) Online questionnaire for students (Google Docs) consisted of 40 questions with options. The students' feedback covered in-class work, feedback and discussions, and independent homework with the learning material. The students received the materials via separate links in the Estonian central school portal eKool (eKool, 2018)¹.

The questionnaire consists of different types of rating scales (1–5/7); every question had an option for free comments (feedback). For the measuring of the effectiveness of the LO-s there were set up certain verbal constructs. Data was analyzed with MS Excel Descriptive Statistics. Qualitative analysis coding the answers was used for open ended questions.

- 1. Tell+Show appropriateness of the content (in accordance to RÕK 2011): Likert scale 1 not appropriate 5 well appropriate;
- 2. Tell+Show informatively: Likert scale 1 not informative 5 too much informative:
- 3. Tell+Show logical use of concepts/terms and comprehensibility of definitions: Likert scale 1 does not include comprehensible definitions 7 includes too many concepts/terms, the comprehensibility of whose definitions is (partly) still sufficient;
- 4. Tell+Show proportion of names (composers/theorists) and (sound or notation) examples Likert scale 1 does not include names or examples 7-includes too many names and examples their connection and need are clear, but unnecessarily detailed:
- 5. Ask tasks 1-5 (7). Scale 1-doesn't fit 5 fits well, 6 fits well, but is too short, 7 fits well, but is too long (detailed/complex). Every Ask-task had a possibility for self-estimation.
- 2) Lesson observations were analyzed along the criteria required by the Estonian state (EU funded) Project "Digital Learning Resources for High Schools" (DÕV, 2017-2018).

¹ eKool is a school management tool for pupils and parents, schools and educational authorities. eKool supports pupil's learning with educational materials, homeworks; teachers management with lesson content, assessments, and homeworks. Parents are informed of their children's progress.

Although the aim of the observation of the lessons was to analyze the way of application of the LO-s, rather than the content of the LO-s, the suitability of the material to the curriculum was still important to inquire.

The main criteria at analyzing the lessons were: 1) content's appropriateness to curriculum, 2) extent of integration LO-s into the lessons, 3) kind of LO-s the teachers used (Tell/Show/Ask/Do), 4) nature of the use of the LO-s, 5) combined LO-s with practical music-making (singing, playing instruments), 6) balance between audial and visual material, 7) students' reactions to the material, 8) students' activity level, 9) integration into homework, 10) material enabled the self-expression of students, 11) entrepreneurship of students, 12) material enabled the self-expression, entrepreneurship, team-work of students, 13) material enabled the problem-solving of students. All criterions were estimated in scale 1–5 (Table 1 in the Results section).

The testing (March–May 2018) took place in two high schools in Tallinn area in two 12th grades (N=22/18; total N=40; boys N=19; girls N=21). Observation of music lessons took place in two 11th grade classes N=13/15 (total N=28). The average age of the samples is 18 years. The classes were taught by two experienced music teachers who have been open for new and experimental approaches.

Results

In this section we introduce first results of the quantitative and qualitative data in an averaged form in order to get a generalized overview of the feedback on the present state of the teaching material (eight chapters).

The estimation for the **Tell+Show** appropriateness of content and informative aspect (Figure 1) on Estonian music history shows that all LO-s were estimated positively – girls' average is slightly higher than the boy's one. Lower estimation on informativity could be caused by the fact that nowadays all information is available in the Internet without teacher's interventions or learning guidelines. Lower estimation could also have bearing on the content of the LO-s – Estonian music, and be caused by the enormous number of events and music performances in relation to the 100th Anniversary of the Republic of Estonia. Anyway, this fact, as well as boys' lower estimation, should be taken into consideration for further improvement of the material. This contradicting result does not prove the recent surveys in Estonia (Selke, 2017b) that boys are keener on learning with IT support in music lessons.

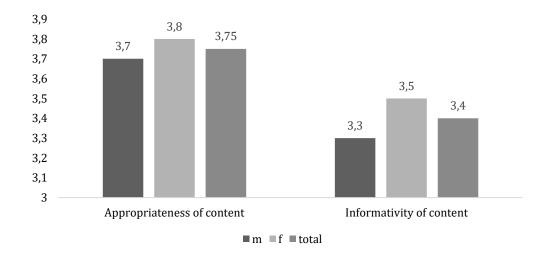


Figure 1. Average estimation for Tell-Show appropriateness and informativity of content (scale: 1-not appropriate – 5-well appropriate): m (male), f (female)

The estimation for the Ask-tasks on Estonian music shows (Figure 2) that all LO-s were estimated positively. Students like both sophisticated and simple tasks. In general, simple tasks (Ask 1*) were assessed higher than tasks having a greater difficulty level (**-***). A kind of model of a good hierarchy in the level of difficulties are the *Song festival tradition* Ask LO-s, as the highest evaluation has been given to the simplest task and lower estimations to the more difficult tasks.

The results of this survey suggest that, for further improvement, the level of the task-difficulty of some of the Ask-tasks should be changed: for example, LO-s *Losses of national culture, Examples of modernism*. Also the content of the Tell +Show as well as formulation of the Ask LO-s should be checked and maybe changed, too.

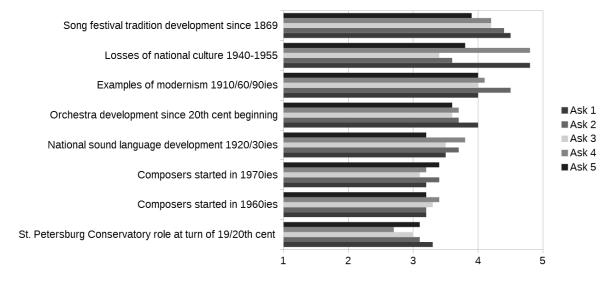


Figure 2. Average estimation for Ask LO-s (scale: 1-doesn't fit/difficult – 5-fits well/simple)

The average results (Figure 2) show that the Ask-tasks for the students rather fit (4). The assessments of the tests have been partly influenced by the technical conditions: too small screens for Drag the Words and Flashcards tasks, a limited number of answers (and grammatical forms) in Fill in the Blanks test, etc.

The attitudes towards the Do-tasks are the crucial point for this article as previously explained. The students' estimation shows two aspects: general attitudes to the practical activities and the appropriateness of Do-tasks within the chapter topic.

Statistical analysis of the quantitative data shows positive attitude of the students towards the Do-tasks (Figure 3). A slightly more positive boys' attitude could be explained by the findings of previous studies (Selke, 2017b; Kuldmaa, 2018) about music lesson activities – boys prefer the practical activities like playing instruments and digital composing tools.

The qualitative analysis of open ended questions shows a more detailed feedback including appropriateness of Do-tasks with the topic. Open coding draws out three main aspects: group work, the possibility to express own opinion, variable multimedia resources.

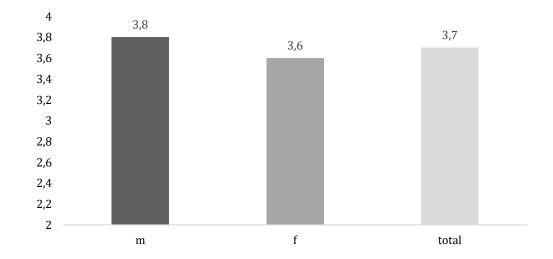


Figure 3. Students' average estimation to the Do-tasks (scale: 1-doesn't fit - 5-fits well): m (male), f (female)

For example, group work was brought out as exciting or as simplifying:

R2f: Tasks done in group are more exciting.

R12f: Because this was groupwork all was much more simple to do.

R20f: As the task was too extensive this was easier to do this in group.

R5m: More group work, please.

Exaple of expressing students' own viewpoint:

R15f: I liked that my opinion was asked.

Multimedia resources were pointed out as informative (R34m), did not require additional homework (R13f), and enabled to acquaint oneself with a whole musical work (normally teachers play excerpts only) (R27f; R24m; R36m).

Critically were assessed the following aspects: complicatedness (formulation, task itself), length of the tasks (time consuming), difficulties to find synonyms for descriptions of music, too much material.

The analysis of the observations of two 11th grade lessons shows the good appropriateness to and optimal integration of different types of LO-s into the curriculum with a number of variety that gives a possibility to differentiate the teaching. Although at the second lesson the usage of the LO-s could have been more extensive.

Table 1. Evaluation list of the two observed lessons: x – first lesson, y – second lesson

No.	Criterions/Rating scale	1	2	3	4	5	Comments
1	Content appropriateness to curriculum (1-no - 5-well)					xy	
2	Extent of integration LO-s into the lessons (1-no – 5-well)				х	у	
3	Kind of LO-s the teachers used (Tell/Show/Ask/Do)					TSAD TSD	
4	Nature of use of the LO-s: mechanically (1) or creatively (5)				у	Х	
5	Combined LO-s with practical music-making (singing, playing instruments) (1-no – 5-well)					xy	
6	Balance between audial and visual material (1-no – 5-well)					xy	
7	Students' reactions to the material (1-negative – 5-positive)				xy		
8	Students' activity level (1-negative – 5-positive)				х	у	
9	Integration into homework (1-no – 5-well)	у			х		1 Ask (x)
10	Material enabled self-expression of students (1-no – 5-well)					xy	
11	Entrepreneurship of students (1-no – 5-well)	xy					
12	Material enabled team-work of students (1-no – 5-well)					xy	
13	Material enabled problem-solving of students (1-no – 5-well)		у			х	

Students' reaction to the lesson and to the new materials was quite indifferent, although all students' attention was attracted to the screens and they keenly did their tasks on their smart phones. The most exciting response could be observed to the tasks that needed live music making (musicking) with instruments including musical self-expression (first lesson) and drawing music (pieces by Debussy and Ravel, second lesson). The observation confirmed the students' response (in the questionnaire) about the effective integration into the home works in the first lesson.

Both lessons could not give a chance to express/develop the students' entrepreneurship and offered too little problem-solving. The lesson observations show that the experienced teacher can use all LO-s very creatively and is able to combine the material successfully with live musicking.

Conclusion

The preliminary results encourage the compilers by the fact that in general the created material is already well produced and well received by the students. On the other hand, the individual results are more diverse than the average shows and includes here, besides confirming a feedback, there are also a number of suggestions to improve the material, and the need to differentiate the levels of difficulties in the Ask-tasks.

To summarize the survey, from the students' point of view the innovation of the new digital learning material lies in the variety of tasks and in the fact that it enables an open access to internet resources. A novelty of the digital learning material can be seen also in the numerous options for group work, the possibility to proceed more profoundly according to students' interests, and the possibility for the students to express their own opinion.

From the teacher's point of view this digital material is good, because of its compactness and the variety of tools. Ask-tasks are also helpful in teaching students with special needs.

Among the limitations of the DÕV project (not mentioned before), is the need for availability of appropriate and stable working technology equipment and free Internet access for every student. Also teacher's insufficient experience and courage concerning the integration of the digital learning materials can be a delimiting factor.

This testing phase, whose first results have been presented in this article, included beside the school students also our own university first and second year music students: their valuable feedforward suggestions have been already taken into account during compiling of the material. For the further improvement of this innovative digital learning material some school students (grade 9-12) may be included furthermore actively into the compilers' team. And then we can speak about a really learners-centered learning material when the learners themselves take part in the compiling process.

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WORK ON A MUSIC DICTATION AT SOL-FA CLASSES IN THE INITIAL STAGE

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Abstract

A music dictation, being a working form of the sol-fa course, plays an essential role in the all-round development of learners' musical hearing. A music dictation develops learners' musical memory, contributes to a conscious perception of melody and other elements of music language, teaches the learners to put down what has been heard. To learn writing dictations, to acquire the skills of fixing what has been heard is impossible in isolation from the whole complex of sol-fa classes.

Research aim: to define and characterize different forms of music dictations.

Using practice-led methodology authors 1) characterize different forms of music dictation, and 2) explain the teaching strategies in the organization of students' work on writing music dictations.

Key words: dictation, musical hearing, musical memory, analysis

Introduction

A music dictation is one of the classroom work forms in the subject *Music Studies* at music school. A music dictation implies writing down music by ear. Latvian researcher J. Joffe (1991) defines music dictation as the completest and highest form of the analysis of aural abilities.

A music dictation is not a mechanical 'translation' of sounds into notes, but rather a melody recording, based on comprehending separate elements of music and interrelations between them in general. A music dictation is one of the most complicated work forms of sol-fa at all stages of teaching, but at the initial stage it is even more so.

Using music dictation, it is possible to develop learners' musical memory, to enhance a conscious perception of melody and other elements of music language, to teach learners to write down what has been heard. While writing a music dictation, all learners' knowledge and skills get synthesized, and the developmental level of their musical memory is established.

On writing a music dictation the learners can demonstrate

- the developmental level of their musical memory, thinking, and different kind of musical hearing;
- certain theoretical knowledge that helps them to fix what they have heard.

It is just the organization of work on writing music dictations at the initial stage that the whole further development of learners' musical abilities depends on.

According to J. Davidova (Давыдова, 1975), writing music dictation involves three elements: hearing – understanding – recording (see Figure 1).



Figure 1. Components of writing a music dictation

This requires having not only a certain minimum of knowledge and developmental level of hearing, but also a specific preparedness and learning.

The goal of a music dictation is to train the skills of immediately converting the perceived musical images into precise aural perceptions and fixing them as quickly as possible in notation (Zavadska & Bagele, 2017).

The basic tasks of writing a dictation are as follows:

- To create and reinforce the link between the seen and the heard;
- To develop musical memory;
- To develop learners' inner hearing;
- To be a tool for reinforcing learners' theoretical and practical skills.

The process of writing a dictation requires developing specific, special skills and therefore before taking this work form up a teacher must be convinced that the learners are ready for it. This is why the work on writing a dictation is done into two main directions: a) preparatory work forms; b) writing a dictation.

Research aim

This research aims were to characterize different forms of music dictations and to check the teaching strategies, which authors use to teach writing music dictations at a sol-fa class, in order to establish best practice in developing learners' skills of immediately converting the perceived musical images into precise aural perceptions and fixing them as quickly as possible in notation.

Methodology

Multiply qualitative methods have been employed to undertake this research. Synthesis of authors' own pedagogical experience has occured over several years through participants (music school students) observation, formal and informal learner

feedback. Practice-led research has been undertaken to investigate authors' teaching of sol-fa and arranging learners' process of writing a dictation and outputs. L. Candy (2006) notes that this methodology is concerned with the nature of practice. Learners' works were assessed according to criteria, which elaborated authors in cooperation of experts.

1. Preparatory Work Forms

Learners can begin writing a music dictation only after they have been prepared for it. The duration of a preparatory period depends on learners' age, the level of their musical and intellectual development and on the receptivity of the group. The preparatory work that builds a firm foundation for learners' skills and abilities and would enable them in future writing music dictations competently and painlessly must consist of several stages.

The stages needed for the development of skills necessary for writing music dictations are as follows:

- Precise fixation of notes:
- Metro-rhythmic fixation of the music material;
- Fixation of the melody pitch;
- Analysis of the music material;
- Fixation of the melody.

1.1. Precise fixation of notes

One of the most essential tasks of teaching sol-fa course at the initial stage is the formation and development of a 'quick sound fixing' skill. From the very beginning, the learners have to be taught a correct graphic fixation of notes: writing small note heads, not very close one to the other; minding to write down correct signs of alteration. In this paper we recommend the following sequence of acquiring writing the notation:

- Treble clef:
- Time-signature, bar-line, signs indicating repetition;
- Notes

The notation of the Latvian folk song "Bērni un kaziņa" [Children and a Goat] can be offered as an example (see Figure 2).



Figure 2. Latvian folk song "Bērni un kaziņa"

1.2. The sequence of developing skills of the metro-rhythmic fixation of the music material

A correct metro-rhythmic fixation of melody is even a greater challenge for a learner than notation itself. Therefore, indication of rhythm in a dictation should be paid a special attention to. Work on developing the skills of metro-rhythmic fixation of the music material can be divided into three stages:

- 1. Sense of uniformity of movement given in different tempos;
- 2. Sense of time, a change of stronger and weaker parts of time;
- 3. Studying and repeating combinations of sounds of different length (namely, the rhythm pattern).

At the initial stage of teaching it is vital that the learners should simply acquire well the graphic representation and name of every length. Concurrently with acquiring the graphic representations and names of lengths, work on developing learners' understanding about long and short sounds should be done as well. After the names and signs of length have been well acquired, the acquisition of concepts *time*, *note value*, *meter*, *rhythm*, *measure*, should be dealt with. Then note values (a half note, a quarter note) should be explained to children. After that, learners will be introduced to different rhythm patterns, and for the acquisition of these rhythm patterns they should be used in various dictations.

Only after the learners have acquired equal pulsation, length adequacy, and division into bars can a teacher begin working on simple metro-rhythmic dictations.

Learners can be offered proverbs, poem texts which they may use as examples to show the stressed parts, to indicate bar limits and develop understanding of length. We recommend to use the text of the Latvian folk song *Aijā*, *Ancīt*, *aijā* as an example:

Aijā, Ancīt, aijā Saldā miedziņā. Māmiņ tevi šūpos Vieglām rociņām.

Learners sing the song text and clap their hands simultaneously, they can also sing rhythm syllables. Giving ear to words, learners can easily define the time and rhythmic pattern of music. The text facilitates an easy transition from metro-rhythmic to melodic dictation (see Figure 3):



Figure 3. Melody of the Latvian folk song Aijā, Ancīt, aijā

Beating time, being an integral part of developing the metro-rhythmic sense, involves a system of gestures that allows learners themselves to come to understand the relationships of note lengths, and this system should be developed gradually.

Developing the understanding about length and learning to fix the rhythm are the most significant areas of work at the initial stage.

1.3. Fixation of a melody pitch

Work on understanding and aural perception of melody sounds is of vital importance at developing a skill of writing music dictations. Work on the fixation of melody pitch has to be done constantly. The sequence of developing skills of fixing a melody pitch might be as follows:

- The initial stage of acquiring scales is based on sense, but later the theoretical characterization is offered;
- Attention is focused on stable and unstable sounds; the concept of tonic is introduced;
- Ability to distinguish between major and minor;
- Singing scales, and converting unstable degrees into stable ones;
- Tonic triad.

At this stage, learners have to acquire:

- The ability to think in degrees (the development of the ability to quickly and precisely find any degree in a tonality);
- The ability to isolate from the text and recognize separate, frequently repeated melodic patterns by ear.

Such patterns are modes – trichord, tetrachord, and pentachord, movement from the introductory tones towards tonic, auxiliary notes, and also different modifications of these patterns. Singing sequences of melodic songs, which are being learnt till automaticity, can also be of some help. After the learners have mastered the basic melodic elements, they can automatically recognize them in the text of notation when they read music from the sheet and do aural analysis.

1.4. Analysis of the music material

Work on defining and understanding the music material and on the form of the dictation itself is important for succeeding in writing the dictation. The sequence in which the skills of music material analysis can be developed is as follows:

- A comprehensive analysis;
- The analysis of music language elements;
- The analysis of melody.

When listening to music, the main task is the ability to comprehend music on the whole, to feel its flow. When a comprehensive analysis is done, comprehending proceeds from what is general to separate elements, and it is not advisable to start the analysis just after the first listening, it is better to play the piece several times so that to give some time to think everything over, memorize and only then start analyzing.

On the basis of our long pedagogical experience we have designed a four-component plan for the analysis of a melody, and we offer it further:

A. Form and structure of a melody

- 1. How many stages (parts, sentences) a melody has;
- 2. How many phrases (melodies) a sentence has;
- 3. Whether all the phrases according to their size are the same, what the differences are;
- 4. What the relations (thematic) of sentences, phrases (the same, similar, different) are;
- 5. To write down a scheme in letters.

B. Metro-rhythmic arrangement of a melody

- 1. To feel a metro-rhythmic pulsation (a calm, slow step);
- 2. To define the genre;
- 3. To define the time;
- 4. To establish how many bars a phrase has; whether the structure is quadratic or non-quadratic;
- 5. Characteristic rhythm groups in a melody (on the basis of a certain genre);
- 6. A metro-rhythmic structure of a phrase:
 - Rhythm pattern is the same, similar, different; where does the similarity exist?
 - Rhythmic changes (a pause etc.), a rhythmic contrast (what new rhythm groups are there).

C. A melody pattern. Peculiarities of a scale

- 1. To internally hear the stable degrees, to define a scale and the kind of a scale;
- 2. Which degrees have a basic meaning at the beginning of a phrase, at the end of a phrase, in culmination moments;
- 3. A melody pattern:
 - a. Sequence tunes;
 - b. A gradual, scale-like flow of a melody;
 - c. Movement of a melody along the chord sounds;
 - d. Singing of stable degrees;
 - e. Characteristic tunes of a cadence;
 - f. Striking acoustic intervals.
- 4. To establish methods of variation of similar phrases

D. A complete understanding of a melody

- 1. To sing the whole melody by inner ear; to identify the moments memorized inaccurately; to specify these moments after a repeated listening to a melody;
- 2. To sing, play or write down a melody in a definite tonality.

1.5. Fixing a melody

Skills of fixing a melody from memory develop on the basis of different kind of preparatory work: learning songs from memory, oral dictations, singing small music phrases, analysis of musical compositions. The whole process of developing memory must be organized according to the principle as follows (see Figure 4):

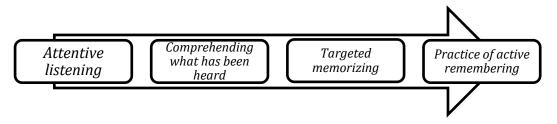


Figure 4. Process of developing memory

The skill of fixing a melody develops with the memory tightly interacting with musical hearing, sense of rhythm, inner hearing, and bearing in mind the fact that logic and emotional memory, too, play a significant role in this process.

2. Different Forms of a Music Dictation

Forms of a music dictation are various – of one voice, two-part, many-voiced. The initial stage of developing the skill of fixing a dictation traditionally involves monophony. Work on a dictation for one voice confronts a teacher of sol-fa with quite a complicated task – to focus a special attention on the formation of an intonation-sensitive hearing which enables the learners to comprehend and assess what is going on.

In teaching practice there have been developed different forms of dictation for one voice:

- A metro-rhythmic dictation;
- Dictation variation;
- A dictation with errors;
- A sample dictation on a board;
- A flash-dictation:
- An oral dictation:
- A multicolor dictation;
- A self-dictation;
- A dictation with gaps;
- A stenographic dictation;
- A dictation "kaleidoscope".

Each of the above mentioned dictations has a specific goal – control of aural attention, training and development of musical memory etc.

Now we will have a deeper insight into each of these one-voice kinds of dictation. As a metro-rhythmic dictation was discussed in the subchapter about the preparatory dictation forms, we shall deal with other forms now.

A. Dictation - variation

Notes of a simple melody are written down on the board, and all learners sol-fa it, then a teacher plays the melody using the rhythm or different intonations, while the learners try to identify and fix the changes made in the notation.

B. Dictation with errors

After the melody has been sung, the teacher writes it down on the board intentionally making several error in it (errors may concern both the rhythm and separate sounds). Learners are told to find these errors and correct them, without using any musical instrument. This type of task teaches learners to control themselves.

C. Sample dictation

A sample dictation is done by a teacher. Its goal and task is to demonstrate on the board the process of fixing it (Островский, 1970). In front of all the learners, aloud, a teacher tells the pupils how he listens, conducts, sings a melody and in this way comprehends it and fixes in notation. This type of a dictation is very useful before proceeding to independent fixing after the preparatory exercises, and also when the learners are supposed to cope with the dictations presenting new difficulties or being of a different type.

D. Flash-dictation

This is a repetition or fixation of short sequences after they have been played one or two times. This type of a dictation contributes greatly to the development of the accuracy of musical memory and to broadening the scope of memory. Before doing a flash-dictation, learners should be offered several preparatory exercises on singing separate intonations (see Figure 5), identifying the sounds by ear and naming them.



Figure 5. Exercises on singing

Work on a flash-dictation (see Figure 6) requires quick perception and reaction, ability to concentrate attention; before listening to the dictation, learners should be specifically told what the attention has to be paid to:

- 1. To define the pulsation of rhythm, fixing the metric system (beating the time with a hand);
- 2. To follow the melody movement.

Aiva Barkāne



Figure 6. Flash-dictation sample (Barkane, 2002)

E. Oral dictation

An oral dictation represents a short melody built on familiar for the learner's melodic patterns and played by the teacher two-three times. At first, the learners repeat the melody on any syllable and then sing the dictation with the names of sounds. This form of a dictation can be used quite frequently, as it is just the oral dictation that helps the learners to consciously perceive some difficulties of the melody and develops their musical memory.

F. Multicolor dictation (Joffe, 1991)

Every time, after listening to the dictation, the learners fix the memorized note text in pencil of different color. They agree upon the succession of colors beforehand. Nothing must be erased. A little bit more space than usual should be left for the notation. If a learner identifies an error in the notation, he writes the correct note next to the incorrect one. This type of a dictation develops musical thinking and also those principal brain centers which are responsible for broadening the scope of musical memory.

G. Self-dictation

Its goal is intensive loading of inner hearing, and consequently its development. Variants of a dictation:

- To fix a familiar popular melody only with the help of inner ear;
- To play or to fix in the same or in a different tonality a fragment of music, heard, played or analyzed just now;
- To write down a fragment of acquired composition in the same or in a different tonality.

H. Dictation with gaps

The music material is taken from compositions for orchestra, from chamber or solo compositions. Learners have to fill in the gaps by ear. The aim of this type of a dictation is training the ear to perceive music of various styles as well as to precisely identify the timbral peculiarities of a composition.

I. Dictation - stenography (fixing during the dictation)

Fragmentary French Methodology (Desportes, 1970) based on fixing fragments of the notation of a dictation. According to this methodology, a dictation is played by fragments of two bars, repeating each one only two times; then, every time when it is played again, all the bars that have been played before are added to a specific fragment. This type of a dictation is controversial since a fragmentary writing down involves fixing a note text while the fragment still sounds (like in stenography): these results in losing the perception of the wholeness of a dictation, which negatively influences the development of students' musical memory and thinking.

J. Dictation - kaleidoscope

This type of a dictation is oriented towards developing a skill of correct combining isolated sentences or phrases, written on the board or paper. The learners listen to the

whole dictation and try to determine the correct sequence of these tunes. This form of a dictation considerably enhances the development and activation of inner hearing.

When working on a music dictation, a teacher of sol-fa is given a great freedom concerning the choice of methods and forms (Масленкова, 2007). The main thing is to teach learners to correctly 'hear'; to remember, analyze and understand a musical text; so that they would be able to comprehend it graphically and write it down correctly. All work carried out in future will involve the development of these basic skills and making theoretical material more complicated.

Conclusions

- 1. A music dictation is an activity that generalizes and sums up other types of activity at a sol-fa class, it is of a great practical value.
- 2. Before writing a dictation, aural skills should be developed. Fixation of a melody is preceded by preparatory work forms. These forms must be systematic and diverse.
- 3. All types of a music dictation for one voice as well as all kinds of creative tasks enhance greater flexibility of hearing and confidence when fixing the dictation.

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MUSIC TEACHERS' REFLECTIONS ON LEARNING THE COLOURSTRINGS METHOD IN A DISTANCE-LEARNING PROJECT Inkeri RUOKONEN

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WORK ON A MUSIC DICTATION AT SOL-FA CLASSES IN THE INITIAL STAGE Gaļina ZAVADSKA & Ilona BAGELE