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E-Learning in Music: A Case Study of Learning Group Composing in a Blended Learning Environment

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Abstract

New educational technology has become an important part of modern teacher education in Finland today. Studying music in Finnish teacher education means both studying music didactics and developing musical skills. With only a limited number of contact lessons in the regular curriculum, new learning environment solutions with new technology are needed. This is a qualitative case study of 16 students' experiences of studying group composing in a blended learning environment. The purpose of the study is to enrich face-to face, teacher-led learning in music with new technology and the e-learning environment and to develop a new technology-based blended learning model for student teachers' needs. The research questions considered the kind of learning experiences students had in studying music, especially group composing in a blended learning environment and how a blended learning environment can help students learning music in a creative learning process. The research is a qualitative approach to students' (16) experiences of a new blended learning environment. The blended learning method used was the rotation method, in which students learn through a schedule of independent online study in the "Rockway" music-e-learning environment, other informal online learning environments, social media and face-to-face classroom time during a 5 credit points music course. The qualitative data has been collected during the studies through group interviews and reflective writings of students' learning experiences that took place after the course. The data has been analysed by content analysis. The major advantage of blended learning is that it offers more opportunities for independent and constructive learning. The experiences of a blended learning environment were positive and the teacher's role was seen as an important and helpful mentor for more independent learning and creative learning in groups. According to students' experiences, the greatest benefit from e-learning was achieved by those who already had some musical background before these studies. The use of information and communication technologies improved students' attitudes towards independent learning concerning their musical skills.

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1. Introduction

In recent years new technology and online learning have become increasingly important components of teacher education in Finland. According to Graham (2003), the blended learning environment is a learning environment that combines face-to-face instruction with technology-mediated instruction. This concept can also be referred to by the term hybrid learning environment, but in this article the term blended learning is used (Graham, 2006; Bonk & Graham). Traditional face-to-face instruction involves interaction between a teacher and students who are in the same location, whereas technology-mediated instruction uses informal or online information and communication technologies (ICT) to mediate the learning experience and interactions without requiring that students and teacher are in face-to-face contact.

Graham (2006) and Graham & Dziuban (2007) introduce three primary reasons for adopting a blended approach to instruction. Firstly, blended learning can improve learning effectiveness; secondly, it can increase access and convenience, and thirdly, it can save money of the department. In this case we adopted blended learning to explore which kind of learning experiences it brings compared to traditional face-to-face learning. The growth of online education in music as well as the lack of the resources and contact lessons has driven us as music educators to find new combined ways to teach music.

For decades peoples have used informal ways to learn and study music and combined them with face-to-face learning whenever possible. Nowadays social networking platforms and online communities form an integral part of most music students' everyday life (Salavuo, 2008). In the Department of Teacher Education at the University of Helsinki, we began to provide and use online learning opportunities in learning music with (or in addition to) face-to-face learning. The student teachers are part of a very heterogeneous group in terms of their musical background studies and skills. The Rockway online learning environment, which is the online programme used in this study, provides video courses at different levels for beginners or advanced students in several instruments, singing, improvisation, musical production and creativity. The purpose of this case study was to enrich face-to face, teacher-led learning in music with new technology and an online-learning environment and develop a new technology-based, blended learning model for student teachers' needs.

2. The blended learning environment—A new way to engage learning

The blended learning pedagogical approach takes advantage of the knowledge building paradigm of Scardamalia and Bereiter (2003). Learning is based on small teams that share in content creation and use online learning. Blended learning solutions have been advocated by many educational researchers (Bereiter 2002; Garrison, Archer and Anderson 2003; McLoughlin and Lee 2007; Bonk and Graham, 2012). Blended learning is learning that mixes various event-based activities: self-paced online learning, live e-learning and face-to-face classroom learning.

According to Dziuban, Hartman and Moskal (2005), blended learning is a pedagogical approach that combines the effectiveness and socialization opportunities of the classroom with the technologically enhanced active learning potential of the online environment; it does not necessarily conform to a ratio of delivery modalities. Watson (2008) sees that blended learning should be approached as a fundamental redesign of the instructional model with the following characteristics:

1. a shift from lecture- to student-centred instruction in which students become active;
2. a focus on interactive learners both online and face-to-face;
3. an increase in interaction between student-instructor, student-student, student-content, student-informal outside resources, and
4. an integrated, formative and summary assessment mechanism for students and teacher.

In this view blended learning represents a shift in instructional strategy; blended learning offers the possibility to significantly change how teachers view online learning in the face-to-face setting (Watson 2008; Bonk &Graham 2012).

Ketonen and Lonka (2012) studied the academic emotions of university students that were experienced during an engaging lecture course for university students. Three profiles of students' emotions were identified: engaged (36%), unstressed (25%) and anxious (39%). According to their results, engaged students spent the most hours on studying independently themselves and received the best grades. Unstressed students were the least active in independent study and also received the lowest grades. According to these results, the blended approach combines the best elements of engaged face-to-face learning and online independent or flipped classroom techniques. In a study by Méndez and González (2011), the blended learning environment positively contributed to university students' connection with and achievement of the proposed target skills, a positive degree of satisfaction, and better results on exams, although statistically the increase in performance was not so significant.

The best known area of using technology in music education might be the use of informal web-based or distance learning. Finland has been a pioneer in developing distance learning education systems via teleconferencing technology because of the long distances some students live from music schools, especially in the Northern parts of the country. Finnish music educators have developed online music learning, especially the Rockway (www.rockway.com) and Yousician (www.yousician.com) music programmes. The blended instrumental learning of violin has spread throughout the world and can be seen in the work of International Minifiddlers (sarestoakatemia.org/minifiddlers/) (Ruokonen & Ruismäki, 2013).

Creative play and game-based web-learning environments have also been developed in recent years (www.songhi.com). In the case study by Song Hi, especially the Rockway environment was used for instrument study, creative production and composition. Nowadays, many teachers have integrated online learning as an extra method in addition to basic contact teaching; some of them have developed their own online learning materials for blended learning settings (Juntunen, Ruokonen, Ruismäki, 2015). In this case study, blended learning combined face-to-face instruction and teaching, group learning and coaching, and online individual study. It involves more engaged learning situations, accepting that students' development in music is an ongoing process through which experience doing the creative work is gained.

Faulkner (2003) had studied group composing and found that especially in this kind of creative group work the ideas generated outside the classroom in various informal settings are shared with the composing group. Members share their musical ideas at more or less developmental stages. These informal settings outside the classroom can be social, informal music making, media, online internet learning or social media. In this case study, the blended learning setting consists of musical ideas that are brought together in group composing. Amabile's (1983) componential model of individuals' or small groups' creative process includes five stages. The first phase is task preparation. At the beginning, the problem or aim of the creative task is determined. The second phase is preparation. In this phase all information connected to the task is gathered and studied to solve the problems or continue the creative work. The third phase is idea generation and new ideas are created. This phase should be very fluid and open to all original ideas. The fourth stage consists of idea validation. In this phase, the group or individual checks whether the ideas presented meet the criteria of the task. The fifth and final phase entails the production and assessment of the creative ideas.

3. Study design

At the beginning of the last semester of the teacher training, the Department of Teacher Education was able to co-operate with the Rockway company, which offered our students the use of its online learning environment at no cost. The research is a qualitative approach to a pilot group of students (16) and their experiences of a new blended learning environment. The research questions considered which kind of learning experiences students had in studying creative music making in a blended learning environment and how the blended learning environment can help students in a learning group composing process. Furthermore, we wanted to know, how does a blended learning environment support students' group composing process?

The research data consisted of students' writings with added teacher observations about the work in the creative process. During and after the course, the students wrote about their learning experiences in the blended learning setting. The writings have been qualitatively content analysed to describe their learning experiences of this pilot music course.

The blended learning method used was the rotation method in which students learn through a schedule of independent online study sessions in the "Rockway" music e-learning environment and face-to-face classroom time during a 5 cp. music course. The qualitative data has been collected during the studies through group interviews and after the course through reflective writings of students' learning experiences. The data has been analysed by qualitative theory-connected content analysis. The major advantage that blended learning offers is increased opportunity for independent and constructive learning. The experiences of the rotation model were positive and the teacher's role was seen as an important and helpful mentor for more independent learning.

4. Results

The blended learning environment was used in arts and skills minor studies when the students were concentrating on group composing songs. The group of students was international because Erasmus students from France (1), Germany (2), Greece (2), Italy (1) and Romania (1) were participating with Finnish students (9) in this voluntary music course of 5 cp. One aim of the course was to compose a children's song in groups. The musical backgrounds of these students varied. One student was almost on a professional level, but most of them had never played any instrument.

In this music course plan, the Amabile's (1983) componential model of small groups' creative process was used. The first phase is task preparation for composing a children's song in small groups. At the beginning the problem or aim of the creative composing work is determined.

In the first phase students get to know each other in face-to face-contact by singing, dancing and playing together. They learned to play the Finnish 5-string kantele with Orff instruments. Then the Rockway environment was introduced to the group. The instrumental lessons on different levels as well as lessons for creative learning in music were introduced carefully. One student commented on the experience*: "For me the Rockway environment was a new experience as I think it was for most of us. In the beginning it was good that the teacher demonstrated how we can use it in this course and how many different additional opportunities there are for us if we want to study more music."* (Student G)

The second phase is preparation. In this phase all information connected to the task is gathered and studied to solve the problems or continue the creative work. Students were asked to combine the online environment to their instrumental studies on their current level and find an instrument in which they are interested. The group followed together the first online lesson of creative music making and was asked to follow the next lessons and to think about some creative idea for a children's song. Although the Rockway environment was presented in the Finnish language, all students began to use it in some way; the international students also used other internet-based environments. Students began to research children's songs, (melodies, ambitus, rhythms, words and musical forms). For this research work they used the internet combined with song books and social media sites such as Facebook. Students found many common features from children's songs all over the world and they learned which kind of songs are so called "evergreen" play songs in various countries. Students also organized one day of singing and playing music on a playground nearby the University where the same children's songs were sung in Finnish and the languages of the home countries of the Erasmus students. One Erasmus student shared the experience: *"It was wonderful that we could use the iPhone during the lessons. In the middle of the lesson, I contacted my friends in my home country via Facebook to find out the words and melody of one of my favourite children's song to share it with my group in Finland. I also learned to play it with the five-string kantele and was very happy to learn this new instrument as a tool for composing and accompanying children's songs."* (Student H)

The third phase of the learning is idea generation; new ideas for children's song are created. When group composing began, students had already studied in the rotational environment online and face-to-face. They worked very openly bringing their musical ideas together. Composing in groups happened at the University in face-to-face-contact, so that all teacher support as well as informal internet-based support was available. Each four groups of four students worked in very different ways. One group began to write words and after that the melody. Another group began with the melody and designed words and a theme for the melody after composing it. Still another group had a common theme and they began by playing chords as had been shown in one online session: *"Group B started their creative work by looking at one Rockway- lesson concerning the use of chords in composing a song In this lesson the*

teacher showed how to use chords as a basis to create a melody. The group members were really excited about this and started to use the same chords for creating their own melody drafts. One of them was playing the chords the others were humming and improvising melodies to those chords." (Observation 2) One group used the five-string kantele as it had been used in one face-to-face contact playing lesson earlier; the students used the number-based notation in marking the melody for their song. A student noted: *"When we began to compose, it was necessary to work face-to face and share all the ideas that we had in our minds. We wanted to compose a song that could be used in each of our three home countries."* (Student I)

The fourth stage of the process is idea validation. This happened in groups during the composing process. They planned some melodic formulas or poems, but very quickly selected the best ideas and continued to compos the song. When the song was ready they evaluated it and discussed the age group of the children and used some pedagogical concepts (eg. theme of friendship or animals) to plan the song. The international groups used English as the common language, but they also translated the words to their own languages and selected the topics such as "saying 'Hello' in different languages" or using nonsense words to make intercultural use of their songs possible.

The fifth phase was to practise and present their song to the others. In this phase they faced the assessment of the other groups. The songs were sung together and audio-recorded with the Audiocity programme and shared within the groups. An enthusiastic response was shared by one student: *"Audio-recording was a good way to share all the songs with everyone. It was wonderful to listen to them and realise how much wonderful creativity was hidden in this group; then it came alive. We all were so happy and proud!"* (Student J)

When analysing their learning diaries and writings, we found that their experiences of the role of the blended learning environment in every phase of the composing process was encouraging. All students mentioned the blended learning environment and the possibility to use the Rockway environment, the internet and social media in music learning as very engaging and motivating.

One student commented specifically: *"In my opinion using the internet and online learning as well as Facebook is the way we should learn nowadays. Anyway, we are always on the internet and for me this is the best way to learn music, to have a teacher's support combined with added online information."* (Student A)

Many students used the online environment to learn new skills in music. Most students studied free accompaniment along with their face-to-face-piano lessons. Guitar, five-string kantele and some new instruments were also studied. One student made the connection between the online environment and learning: *"Using the Rockway environment was a wonderful way to learn to play the new instrument. I chose the ukulele and even bought one from a music store. Now I can already play three chords and accompany the children's song we composed."* (Student E)

The online environment was also used as a base for the creative planning in music and group composing. The learning experiences of the students were positive and according to students' writings the blended learning environment helped students in studying music, especially in learning instrumental playing and supporting their group composing. One student noted the connections between each format and learning:

"I learned how global the chords and harmonies are in the background of the melodies. The lessons in creative producing in music helped me to find creativity in me and express it to other students when we began with our musical ideas. I had already planned one chord design that our group wanted to use as a base for composing a melody". (Student C)

When analysing the students' writings on the role of blended learning in helping engage them in the process and support their musical production, the most effective description came from those students who already had some previous musical background. They could enrich their learning in individual ways and raise their levels. One of the most advanced students was most satisfied with the blended learning possibility:*"At first, I thought that I already knew everything concerning piano playing in group lessons because I have been teaching piano playing and free accompaniment for the others. Then our teacher introduced the Rockway programme to us and my attitude changed. I have been very thankful for this opportunity to study in the Rockway environment. I have learned a lot of new techniques for my piano playing and improvising. The lessons and online teachers have been wonderful."* (Student N)

According to students' experiences, the online learning and face-to-face instruction were combined effectively. The most important experience reported was firstly the face-to-face introduction of the online learning possibilities;

the freedom to study anything through individual lessons was also mentioned: *"At home I started to use the Rockway programme and realised the importance of the introduction and some advice of our teacher about what to study online. There were so many interesting lessons that I had to know where to concentrate first."* (Student M)

Another student saw the usefulness of combining the online teacher with the resource of the face-to-face teacher: *"I have been on the internet and Rockway pages all weekend long. I think that studying individually with an online teacher is the best choice for me. I have begun to study the guitar again and noticed that I remember something from my previous school years. It has been a useful combination to be able to ask the teacher in face-to-face contact about the chords and notes and then continue by myself at home. I have learned much more than I could have learned only in [face-to-face] contact lessons."* (Student F)

Finally, another student noted the flexibility of combining online learning with face-to-face classroom work*: "The freedom to study as much as I want is the best content in this music course. I have learned that the only limit to study music is my own motivation and time. Everything else is possible and available online and I will use this opportunity also during my work years later."* (Student G)

According to observations and discussions with students the integration of face-to-face and online learning helped students to enhance the classroom experience and extend music learning through the innovative use of internet information and online lessons. According to students' writings, the blended strategies enhanced their engagement and music learning through online activities to the music course and improved effectiveness and efficiencies by reducing lecture time and allowing time for the group work to produce creative ideas.

5. Conclusions and discussion

This pilot music course encourages us as teacher educators to use more blended learning settings in the future course planning. It is important to notice that "creativity lives in freedom" and there is not only one right type of design for a blended learning environment. We will definitely try different kinds of blended learning settings in various different music courses. Over time we hope to find the best solutions and practices together with our university students. According to this small case study, online learning in music always needs the classroom instruction and face-to-face support to achieve the best learning goals, so the best solution for future learning in music is in blended learning designs.

Blended learning is a new and unique way to teach and learn and it requires resources, new methods of instruction, course content development and university pedagogical knowledge. When university teaching and learning become increasingly digital and blended, new assessments will be needed to evaluate learning and course participation. Traditional face-to-face based contact and content is always precious in music education, but blended learning with individual choices and enrichment can make it more dynamic and effective for a learner. Teachers need good internet high speed connections and programmes to be able to access online content quickly and easily to keep the dynamics of the classroom instruction flowing. According to this case study, the blended learning environment works especially well in creative work and creative group planning processes. This qualitative pilot case study is a starting point and much more evidence-based evaluative research is needed to determine how the on-line part of the whole blended experience of student learning contributes to the quality of student learning in higher education.

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