The use of technology in music education in North Cyprus according to student music teachers

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Today, the rapid changes and developments in information and communication technologies affect all sectors, which includes a positive impact in the field of education. For this reason, it is important that teachers make effective use of technologies and keep up with innovation to meet the needs of the new generation. This research focuses on describing technology use in music education at a university in North Cyprus, according to 18 student music teachers, to highlight the extent to which technology has been integrated into music education, making recommendations for further integration. This mixed-methods study employed a questionnaire containing closed-ended questions, which were analysed quantitatively, as well as open-ended questions, which were analysed based on content analysis. Results underline the importance of curriculum updates to integrate information and communication technology into student music teacher training and the need for in-service training to keep established teachers up-to-date with innovative technologies. Future research is recommended to compare music education practices cross-culturally and to identify ways of maximising the benefits of innovations in technology for music educators.

Keywords: information-communication technology (ICT); music technology; social media; student music teacher

Introduction

Information technologies have become more prominent and received increased attention in education over the past decade (Adelsberger, Collis & Pawlowski, 2013). The continuing technological developments have created resources that can be used in educational contexts, but have also forced changes in the teacher profile and role, as well as in teaching methods. With the development of information technologies, the role of the teacher has become to facilitate learning (Ho, 2004). Parallel with the development of information technologies, communication technologies have improved and their role in education has increased. Social media serves as one type of communication technology, the use of which in education is a relatively new discussion (Tess, 2013). Introducing social media as communication tool has not only allowed for continuous communication and provided a learning tool that eases teacher-student and student-student interaction—it also has improved student learning in different educational environments (Ajjan & Hartshorne, 2008). Along with these developments, the rapid increase in music technology, especially new music software, recording devices and electronic instruments, brings the integration of music technology with music education to the agenda.

This paper examined student music teachers' (SMTs) use of three technologies in music education: ICT, social media, and music technology. Analyses emphasised the degree to which SMTs were trained to use, and actually did use, these technologies in their teaching, as well as their own perceived competence to do so. ICT, in general, has a broad scope, and generally refers to all devices, networking components, applications, and systems combined (Rouse, 2017). According to Friedman (2006), ICT includes computer applications, mobile technology or recording, and communication systems. Forms of ICT include the internet, computer networks, the worldwide web, e-mail, and search engines (Anderson, 2010), as well as software tools and hardware systems. In terms of its function, ICT receives information as well as communicates or trades information with others (Stols, Ferreira, Pelser, Olivier, Van der Merwe, De Villiers & Venter, 2015).

In this study, social media was defined as any number of technological systems associated with collaboration and community (Joosten, 2012). Social media offers various advantages for producing, sharing, debating, and commenting (Manca & Ranieri, 2016). Due to its interactive and communicative features, social media can be used for educational purposes (Ekici & Kıyıcı, 2012; Gülbahar & Kalelioğlu, 2010). For instance, social media allows teachers and students to communicate and collaborate outside the classroom (Işık, 2013). Examples of social media include Twitter, Facebook, Facebook Messenger, WhatsApp, Viber, Google+, Pinterest, Yahoo! Answers, YouTube, and SlideShare. Facebook, for instance, provides opportunities for sharing information (e.g., video, articles), collaboration, making connections, and reflecting beyond classroom discussion.

Despite the general popularity of social media and the fact that teachers in various disciplines often prefer the internet to books or journals as a resource when creating lesson plans (Barker, 2002; Lee, 2001), the internet is used rarely in music classes (Kim, 2013). Instead, technology-applied music education has focused on audio-visual multi-media devices such as compact discs (CDs), digital versatile discs (DVDs), and computer-generated videos (Kim, 2013). There also are specific music software programmes such as Finale, Sibelius, Cubase, Garageband, Dance EJay, and Music Ace. But these software programmes are not the only technological tools supporting music education. Today, music teaching uses a range of music technologies (Savage, 2005). The

rapid development of music technology in the last 60 years has increased the diversity of electronic and acoustic music instruments, some of which offer new opportunities in terms of educational materials for music educators (Savage, 2007). These music technologies include keyboards, computers, musical instruments, electronic keyboards, and virtual studios (Mills & Murray, 2000).

Given the potentially positive effects of technology in educational environments, a topic of discussion is the degree to which technology is being used to make concrete improvements in education. Unfortunately, despite extensive use of mobile phones and computers in developing countries (e.g., South Africa and Sub-Saharan Africa more generally, as well as Thailand, Chile, etc.), the use of technology has not reached the expected level in teaching on a global level (Howie & Blignaut, 2009). This low level persists despite efforts to develop ways of using technology in the classroom, particularly in Latin America and Asia (Stols et al., 2015). The situation in some African countries is much the same in that the application of technology in many higher learning institutions has been limited by extant socioeconomic and technological challenges (Sife, Lwoga & Sanga, 2007).

Several studies indicate that ICT increases education quality (Aksal & Gazi, 2015; Tinio, 2003). Here, quality in education refers to learner involvement, as well as facility of the learning process and teacher development. Tinio (2003) illustrated ways in which ICT has the potential to enhance education quality by expanding learner motivation and participation, easing the acquisition of basic skills, and improving teacher training. Therefore, it is realistic to predict that the use, dissemination, and integration of ICT in the field of education will enhance education quality. This is one reason why achieving technology integration in North Cyprus is so important. If the educational environment in North Cyprus were equipped with new technologic devices and fast internet connections, students would have the chance to reach the same level of success, as in countries where technology has been integrated more successfully (Grassetti & Brookby, 2017).

Research indicates that North Cyprus experiences obstacles in applying technology in higher educational settings, such as lacking awareness of how ICT can benefit education, appropriate physical equipment/facilities, and teachers properly trained in ICT, technology readiness, as well as budgetary constraints (Aksal & Gazi, 2015; Heyberi, 2013; Tenekeci, 2011). Tenekeci (2011) specifically points to restrictions in ICT infrastructure services, as well as the high cost of developing infrastructure, teacher support and training procedures, and internet connectivity (Tenekeci, 2011). Financial constraints are particularly important in obstructing the integration of technology (Tenekeci, 2011). North Cyprus is dependent upon substantial financial support from Turkey, and budgets are narrow in many areas. The budget allocated to education in North Cyprus in 2017 constituted 13.17% of the general budget and covered costs associated with all levels of education. This low allotment has not allowed for substantial investment in technological infrastructure. The deficit was clear in the teaching technologies in schools, where the SMTs featured in this research practiced teaching. The technological equipment in these elementary, middle, and high schools were limited to interactive digital white boards in only two schools, although projectors, speakers, and computers were used in all schools.

In North Cyprus three universities offer Music Teacher Education Programmes, and all use the curriculum established by the Council of Higher Education of Turkey (Yükseköğretim Kurulu Başkanlığı, 1998). This curriculum specifies uniform, compulsory contents for music education courses taught at all universities throughout Turkey and North Cyprus. Although courses related to music technology have been offered in Music Teacher Education Programmes elsewhere throughout the last decade (Cain, 2004), only one course related with technology was included in the Music Teacher Education Programme curriculum dictated by the Council of Higher Education of Turkey. This course (i.e., Instructional Technologies and Material Design) covered two main subjects: 1) the use of ICT in educational settings; and 2) designing teaching and learning tools from simple materials.

The research question guiding this study explored the degree to which SMTs reported being trained to use, and actually using, existing and emerging technology in their teaching, as well as the degree to which they perceived being competent to use these forms of technology. Several sub-questions were considered to address this main question: 1) which technological tools did SMTs use in their music lessons?; 2) what were SMTs' views on their own competences in using and accessing technology?; and 3) how has the use of technology affected music teaching? SMTs who will work as music teachers in elementary, secondary, and high schools were targeted. Consequently, results of this descriptive research will help inform policies and strategies to improve the integration of technology at several levels of music education based on the current state of technology integration according to SMTs, in North Cyprus, as well as in other countries facing similar problems and obstacles to technology integration. Researchers can draw on these results as a means of comparing music education practices cross-

culturally and identifying ways to maximise benefits of innovations in technology for music educators.

Method

This research was a descriptive, cross-sectional study focused on technology integration in music education. Eighteen SMTs at a university in North Cyprus participated. Both quantitative and qualitative data was collected to paint a more complete picture of the research phenomena compared to what would be provided by either quantitative or qualitative data alone. Quantitative data was used to answer the first sub-question focused on the technological tools SMTs used in their music lesson while the second sub-question examining SMTs' perspectives on their own competence in using and accessing technology as well as the third sub-question investigating how the use of technology had affected SMTs' music teaching were answered based on qualitative data. The quantitative data was collected through closed-ended questions and was analysed statistically based on the number of respondents who selected a particular option as the response to each question, while qualitative data was collected via open-ended questions and was analysed textually based on content analysis. These pilot-tested open-ended questions represented written interview questions that collected more detailed views and helped explain the qualitative data.

Instruments

Expert feedback and a pilot study were used to develop the questionnaire and establish content validity. First, two experts provided feedback on the questionnaire. Based on their suggestions, two options were added to the music software question (i.e., Garageband and Sibelius). Next, a pilot study including 10 SMTs studying music at a university in Turkey was conducted. Minor changes were made based on their responses. For instance, options were deleted from the checklist of constructive tools (e.g., Lego Mindstorm, Micro Logic). The experts then reviewed the questionnaire a second time. According to their suggestions, new questions were added about the amount of time SMTs spent on the internet for academic and professional purposes, their thoughts of how technology has affected the efficiency of music lessons, the accessibility of music software, role changes of teachers after the introduction of technology in education, current issues with using ICT in the classroom, and how technology is used to support lesson content. In its final format, the questionnaire included 15 questions: 12 closed-ended, and three open-ended (see Appendix A).

Participants

A convenience sample of 18 SMTs enrolled in a four-year undergraduate programme at a university in North Cyprus participated in the study. All participants were from the only university in North Cyprus with identified SMTs. These participants were all of the SMTs in the Music Teacher Education Department, and were enrolled in the teaching experience course during their final year of undergraduate study. The fact that these students had completed their course work, and had the most teaching experience, situated them as the best informants of the study topic. Ten participants were women; eight participants were men. All participants were 22 to 26 years old, from Turkey or North Cyprus, and were studying music in the Turkish language.

Ethical Consent

The Research and Publication Ethics Board of the university where data was collected granted ethical approval for the study prior to the pilot test. Once data collection started, informed consent was obtained prior to administering the questionnaire. During this process, the researcher explained that the study investigated the prevalence of technology use in music education, that their participation was voluntary, and that they could quit the study at any time. Particular emphasis was placed on clarifying that the participants' responses and their degree of participation would not be used as the basis for assigning a grade in any course.

Analysis

Quantitative analysis of closed-ended responses produced descriptive statistics featuring the percentage of respondents who selected each option. Content analysis was performed for qualitative data. Participant responses were grouped and analysed independent of other open-ended questions. Analysis of grouped responses to each question began with reading each word of data to obtain codes (Miles & Huberman, 1994). Next, codes were classified into categories and then themes. To improve reliability of the findings, two colleagues conducted independent analyses before coming together to determine the initial codes. First each coder generated codes separately for each question. Then, a comprehensive list was assembled, duplicates were collapsed, and remaining codes were described. Codes with similar descriptions were consolidated into categories, which were defined. The data was then recoded based on the broader categories, which were subsequently consolidated into overarching themes. Although data was gathered in Turkish, quotes have been translated for this article to illustrate participants' thoughts.

Results

Quantitative and qualitative results are presented in three parts: SMTs' ICT usage, music technology usage, and social media usage.

Student Music Teachers' ICT Usage

Quantitative results indicated that all SMTs used both the internet and books, but no teacher used newspapers or television programmes (see Table 1). When asked how much time was spent per day on the internet for academic and professional purposes, the majority of SMTs indicated 1–2 hours (see Table 2). SMTs further indicated that they all used both Microsoft Word and PowerPoint as constructive tools, while none used Adobe Photoshop (see Table 3). As for communicative tools, all SMTs indicated e-mail, while very few specified video-conferencing (see Table 4). Computers were the most used collaborative tool, while no respondents indicated General Packet Radio Services (see Table 5).

Table 1 Information resources used by SMTs ($n = 18$)

Information resource	%
Internet	100
Books	100
Journals	5
Encyclopedia	27
Dictionaries	11
Television programmes	0
Radio programmes	11
Newspapers	0
Other (lesson plans)	5

Table 2 Internet use for academic and professional purposes ($n = 18$)

Time	%
1–2 hours	55
3–4 hours	16
5–6 hours	22
Other (not specified)	5

Table 3 Constructive tools used by SMTs ($n = 18$)

Constructive tools	%
MS Word	100
PowerPoint	100
FrontPage	5
Adobe Photoshop	0
Excel	33
Other	0

Table 4 Communicative tools used by SMTs ($n = 18$)

Communicative tools	%
E-mail	100
SMS	44
Video-conference	11
Other (Viber, WhatsApp, Skype)	5

Table 5 Collaborative tools used by SMTs ($n = 18$)

Collaborative tools	%
Electronic whiteboard	38
Computers	100
Liquid-crystal display projector	77
General Packet Radio Service	0
Other (blackboard)	5

In terms of how ICT improved efficiency in music lessons, all SMTs except one reported positive perceptions. In terms of positive effects on learning, one SMT responded that "visual and auditory learning increases with the support of technology, besides, it provides permanent learning" while another said "lessons become memorable when some videos about the lesson are shown." Other SMTs emphasised how technology-supported lessons were more interesting and fun. Respondents said that "students enjoy the lesson more when it is supported with technology" and "technology makes the lessons less monotonous." Moreover, participants focused on how technology made their lives easier. For example, one participant stated that "writing staff notes is easier and more manageable with notation software" while another said "we save time when we use technology in our lessons." The only negative response about technology concerned a negative impact on learning. This respondent wrote that "students' attention decreases when technology is used."

Responses to the question about changes in teachers' roles focused on teachers' duties. The majority of SMTs ($n = 12$) agreed that technology had created positive changes in teachers' abilities to fulfil their duties. One respondent wrote how teachers "… prepare their lessons with more and better samples" and how "lessons become more beneficial." In general, respondents shared the idea that technology was a tool and could not replace the teacher, reporting that the teacher role "didn't change, teachers are still the ones who have the last word" and that "even if technology presents opportunities for teaching, the teacher is still the one who designs and presents the lesson."

Responses to the open-ended question about the use of ICT in education addressed one theme: infrastructure. Internet connection, the quality of technological equipment, proper use, accessing software, improper use of social media, and overuse of office programmes were some of the problems hindering ICT use. For instance, participants responded that "all schools still do not have suitable classrooms to use ICT. Besides, due to various problems, we cannot use ICT whenever we want," "internet connections are always problematic," and "the technological equipment becomes damaged very quickly."

Student Music Teachers' Music Technology Usage

Quantitative results regarding SMTs' use of music technology tools indicated that SMTs used speakers most frequently while the amplifier was the least used (see Table 6). In terms of music software, results indicated that Finale dominated music notation software while Music Ace software was not used (see Table 7).

Table 6 Music technologies used by SMTs (*n* = 18)

Music technologies	%
MIDI keyboard	11
Digital piano	66
Speaker	100
Stereo	61
Amplifier	22
Other (flute, guitar, violin)	5

Table 7 Music software used by SMTs (*n* = 18)

Music software	%
Cubase	11
Sibelius	33
Cubasis	5
Logic	5
Dance EJay	11
Cakewalk	5
Music Ace	0
Finale	100
Garageband	22
Other (StaffPad)	5

Further, when asked whether or not music software was easily accessible, 13 SMTs answered yes, and five answered no. Respondents who indicated that music software was not accessible, mainly explained this lack of accessibility in terms of their geographic location as well as the cost, writing that "there is no resource on the island to find these software programmes," "we can only buy them from the internet. No one sells them here." One respondent further mentioned the fact that even if music software were more accessible s/he would not be able to use it due to a lack of technological advancement: "they are too expensive. Besides, my computer does not support these software programmes."

When asked about the use of music technology, responses included examples of music activities that required technological support. Results included two themes, namely: music theory and composing. The majority of SMTs responded that they used technological support such as videos and MP3s in teaching music subjects and concepts, while only a few indicated that they used software for ear training and composing studies.

Student Music Teachers' Social Media Usage
Quantitative analyses of the types of social media tools used by SMTs most frequently in everyday life indicated that Facebook and YouTube were most popular, while LinkedIn, Xing, Snapchat, MyMFB, Meetup, and Flickr were not used (see Table 8).

Table 8 Social media used by SMTs (*n* = 18)

Social networking sites	%
Myspace	5
Twitter	5
Facebook	83
LinkedIn	0
Xing	0
Google+	38
Snapchat	0
YouTube	77
WhatsApp	61
MyMFB	0
Instagram	27
Meetup	0
Flickr	0
Pinterest	11
Other (Viber)	5

Quantitative results concerning participants' perceptions of how adequately they had been trained to use ICT seemed to contradict previous responses regarding current issues in using ICT in the classroom (e.g., internet connection, the quality of technological equipment, proper use). All SMTs except one answered "yes" to the question inquiring as to whether they had been trained properly to use technology effectively in their professional lives. Participants who answered affirmatively indicated that "we learned how to integrate PowerPoint into our lessons and how to use technology for, designing lesson materials," "Technology helped me to instruct subjects in different ways," and "I learned to prepare effective presentations." This seems to indicate a disconnect between how well-trained SMTs perceive themselves to be and how well-trained they are, given the obstacles to actually using technology in the classroom. The respondent who indicated "no" wrote that "technology support was not used very much in our lessons during my university years. Courses are usually performed as oral or practical, so we didn't take courses in which technology was used effectively."

Qualitative analyses focused on how social media tools were used to plan and organise lessons. This produced two themes, namely: communication and lesson design. In terms of communication, SMTs indicated that they used social media to share information and read discussions, as well as to set up their own groups for teaching purposes. In terms of how SMTs used social media for designing the lesson, respondents indicated that "I benefit from social media to search for teaching resources, for instance pictures, videos, and music," "social media is playing an

active role in finding creative ideas," and "firstly, I start my search on Google+ and YouTube so that I can watch different examples."

Discussion

The study investigated the sub-questions regarding technological tools used by SMTs in their music lessons, their views on their competences in using and accessing technology, and the effect of technology in music teaching. Results related to technological tools SMTs used in their music lessons did not reflect a wide variation in preference. In terms of music software, Finale notation software was used commonly among SMTs, while other software rated much lower. For instance, few SMTs in the current study used software such as Garageband, Cubase, or Cakewalk. Savage's (2007) research produced similar results (i.e., that music teachers did not use a wide range of software programmes). In terms of equipment, electronic white boards, for example, were rarely used by SMTs. They also, however, are not provided by the Turkish Cypriot government. On the other hand, ICT resources used more often (e.g., computers, overhead projectors, printers, CDs) were provided by the government. This lack of variety may reflect the absence of technological equipment in schools. More money allocated to the education budget would be one way to correct this issue.

An analysis of SMTs' views on their own competences in using and accessing technology brought infrastructural problems in educational environments to the foreground, as the facilities of schools where SMTs did their teaching practice were quite limited. At the same time, however, some resources were not exploited sufficiently. For instance, most music classrooms in North Cyprus have digital pianos, but very few SMTs reported using them. This result raises the question of why SMTs did not use the piano. SMTs' perceived competence to use computer software to also be limited by their inability to access a wide range of music software programmes. This may be due to factors such as cost and availability of software programmes, inadequate facilities for using software programmes in classrooms where SMTs performed their teaching practice, and the fact that the Music Teacher Education Programme curriculum does not include a course dedicated to music software. Rather, this training is limited to one course with a split focus. In conclusion, SMTs' vocational training should be revised to incorporate the use of technology in two ways: 1) SMTs should take specific courses focused on equipping them with the skills and knowledge to use technology in the classroom (Churchill, 2006; Dexter, Doering & Riedel, 2006; Jeffs & Banister, 2006); and 2) the use of technology should be integrated more generally into practical aspects of how SMTs are trained (Byrne & MacDonald, 2002).

Analyses of how technology influenced music teaching indicated that SMTs emphasised how technology (e.g. social media) facilitated communication and lesson design, which underlined the positive impact of technology. This result illustrated how social media served as a resource for learning, communication, information, participation (Junco, 2012), and sharing. SMTs defined the communicative role of social media as collaborative. The second most commonly cited role of social media, according to SMTs, was to find teaching materials. Sharing information, discussing, and generating new ideas with these tools increased SMTs' teaching abilities, and, in this way, served as a tool for pedagogical innovation and to improve the quality of education. For instance, some SMTs reported that they used YouTube most frequently as a social media tool. This corresponded to reports from SMTs that they used technological support such as videos and MP3s in their music lessons. This combination of social media and technological tools converged to provide a resource for lesson design around music theory and composition.

Overall, SMTs reported positive perspectives on how technology has affected learning music in the present as well as in terms of how well students retain information. According to SMTs, when technology is included, students motivate easily (Byrne & MacDonald, 2002), learn more during class, and remember more later on, because lessons are less monotonous and more fun. Moreover, technology makes life easier for the SMTs, because these technologies save time. Other positive effects of technology on teaching included a change in teachers' roles after its introduction, as predicted by Savage (2007). SMTs have emphasised that while technology offered teachers a support tool, it did not take their place. That is, multimedia technologies did not replace the teacher, although teachers benefited from options provided by technology (Fischer, Troendle & Mandl, 2003; Greher, 2006). Results indicated that the majority of SMTs agreed that technology had changed their role for the better in terms of lesson preparation; the ease and diversity of teaching tasks; student-centred lesson creation; and their self-confidence. These findings mirror those of Bansilal (2015), who found that technology simplified learning and teaching tasks because technology offered diverse strategies and various resources.

With rapidly shifting technological developments, SMTs and music teachers ought to be prepared and competent to exploit new resources and maximise these developments' positive effects on music education.

Conclusion

Contemporary music education ought to embrace innovations in technology and the changes among learners and teachers created by these innovations. Undoubtedly, the positive effect of technology on music education will increase as technology develops. It is important, however, to ensure that the rapid development of technology is transferred to teaching environments and that both teachers and students receive the training necessary to use ICT effectively. Different forms of ICT, including communication technologies such as social media, are frequently used by young people and interact with the educational context. This interaction points to the necessity of studies that examine the role of ICT in education. With the increasing importance of ICT in education, the ability to use ICT must develop not only during but also beyond the traditional training period. The way in which current SMTs are trained to integrate ICT into the classroom will direct future curriculum updates, as well as determine the need for in-service training for innovative technologies in the future. Findings of the current study assessed the use of technology in music education in North Cyprus and underlined outcomes that draw attention to the relationship between education and technology, especially in developing economies. Based on the results, integrating technology into education in terms of physical and technical equipment requires further development in North Cyprus. The positive impact of ICT tools could be further developed with more investment in both the infrastructure related to ICT in education and in the time spent training SMTs to use ICT in the classroom.

Study Limitations

The study was limited by the low number of participants, as well as the singular context of data collection. As only one university was selected for this study, it is important that further research be conducted to confirm these findings, both within and beyond North Cyprus. Additional research must be conducted to present a more comprehensive picture of the engagement of SMTs with social media and music technologies and their perspectives on the use of technology in the classroom.

Notes

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Appendix A
Questionnaire

1. Please indicate which information sources you use when planning and performing your lessons:
   ( )Internet
   ( )Books
   ( )Magazines
   ( )Encyclopaedia
   ( )Dictionaries
   ( )Television
   ( )Radio
   ( )Newspapers
   ( )Others..............

2. How many hours a day do you spend on the Internet for professional and academic development?
   a. 1–2 hours
   b. 3–4 hours
   c. 5–6 hours
   d. Other ……..

3. Please indicate which constructive tools you use when planning and performing lessons:
   ( )Ms Word
   ( )PowerPoint
   ( )FrontPage
   ( )Adobe Photoshop
   ( )Excel
   ( )Others..............

4. Please indicate which communicative tools you use when planning and performing lessons:
   ( )E-mail
   ( )Sms
   ( )Video conference
   ( )Others..............

5. Please indicate which collaborative tools you use when planning and performing lessons:
   ( )Electronic white board
   ( )Computers
   ( )LCD Projector
   ( )General Packet Radio Services (GPRS)
   ( )Others..............

6. Do you think using technology in music lessons improves lesson efficiency?
   Yes (Please indicate the reasons)
   No (Please indicate the reasons)

7. Do you think teacher roles have changed with the use of technology in music education?
   Yes (Please indicate the reasons)
   No (Please indicate the reasons)

8. When you evaluate the use of technology in music education, can you briefly describe current issues?

9. Please indicate which music technology tools you use to plan and perform lessons:
   ( )MIDI Keyboard
   ( )Digital piano
   ( )Speaker
   ( )Stereo
   ( )Amplifier
   ( )Others..............

10. Please indicate which music technology programs you use to plan and perform lessons:
    ( )Cubase
    ( )Sibelius
    ( )Cubasis
    ( )Logic
    ( )Dance EJay
    ( )Cakewalk
    ( )Music Ace
    ( )Finale
    ( )Garageband
    ( )Others..............

11. Are you able to provide music technology software easily?
    Yes (Please indicate the reasons)
    No (Please indicate the reasons)
12. What are examples of music issues or activities that you would like to handle using technology support?
13. Please indicate which social media tools you use to plan and perform lessons:
    (   )Myspace
    (   )Twitter
    (   )Facebook
    (   )LinkedIn
    (   )Xing
    (   )Google+
    (   )Snapchat
    (   )YouTube
    (   )WhatsApp
    (   )MyMFB
    (   )Instagram
    (   )Meetup
    (   )Flickr
    (   )Pinterest
    (   )Others................
14. Please briefly explain how you use social media tools for planning and organizing lessons.
15. Are the courses you have taken during your university education sufficient for your knowledge and skills to enable you to use technology effectively in your professional life?
    Yes
    No (Please indicate the reasons)