

COVID-19 and Digital Literacy: Assessing Pre-service Music Teachers' Views on Piano Lessons Provided in Emergency Remote Teaching

Ozlem Omur^{1*}, Omer Bilgehan Sonsel²

¹Department of Music Education, Faculty of Education, Kastamonu University, Kastamonu, Turkey

²Department of Music Education, Gazi Faculty of Education, Gazi University, Ankara, Turkey

Corresponding author: Ozlem Omur, E-mail: oomur@kastamonu.edu.tr

ARTICLE INFO

Article history

Received: April 12, 2021

Accepted: July 15, 2021

Published: July 31, 2021

Volume: 9 Issue: 3

Conflicts of interest: The authors declare that they have no competing interests

Funding: Authors had no external funding for this research. The authors financed all the charges for the current research

ABSTRACT

This research aims to examine pre-service music teachers' views on piano lessons provided in the emergency remote education process during Covid-19 lockdown. The population of the research comprises 82 students studying at the Departments of Music Education at Kastamonu University and Gazi University. The survey model, which is one of the quantitative research methods, was used in the research. Research data were collected through a "pre-service teacher feedback form" comprising 19 questions prepared by the researchers and finalized through expert opinions; the data obtained are compiled under relevant tables. The results of the research indicate that majority of the pre-service teachers follow piano courses through their computers, that more than half of the students have the opportunity to play the piano and/or keyboard at home, that they have problems with sound and image synchronization, and that they evaluate the infrastructure of the courses as inadequate. The opinions of the pre-service candidates expressing that they want to pursue their piano education face-to-face after the pandemic ends and that the instrument education they received during emergency remote teaching is not acceptable, which also due to the insufficient level of digital literacy, are also among the results of the research. Pre-service music teachers suggested that piano courses should be held one-on-one and face-to-face, the synchronization problem should be resolved, and the hours for piano courses should be increased. The results of the research presented suggestions regarding the instrument education process and future studies to be conducted on this subject.

Key words: COVID-19, Piano Education, Emergency Remote Teaching (ERT), Pandemic, Digital Literacy.

INTRODUCTION

The coronavirus firstly appeared in the Chinese city of Wuhan in November 2019 and was announced by WHO as a global Public Health Emergency of International Concern (PHEIC) in January of the following year. As of 15 May 2021, WHO reported 161 million cases and more than 3 million deaths worldwide (WHO, 2021). The fact that a global epidemic has not been encountered recently has caused all countries to be caught unprepared for this process and people to be seriously affected socioeconomically and psychologically (Jahangir et al., 2020, p. 3). This situation created a global panic throughout the world and paused daily life activities completely in many areas. In line with the warnings of WHO, countries have implemented various measures to slow down the spread of the virus and new regulations have been introduced for the functioning of many sectors. It has become inevitable to take precautions in the field of education as well and whole world has entered into a process that has not been experienced before. As shown in Figure 1,

when evaluated in terms of education, the education process of more than 1.57 billion students in the world has been interrupted (Karakas, 2020, p. 565).

It is crucial to plan and perform educational activities in situations that require a suspension of face-to-face education due to reasons such as earthquakes, epidemics, terrorism and social events. Determining an alternative method to continue education activities without interruption in such emergency situations will ensure to resume education from where it left off (Bayburtlu, 2020, p. 134). Due to being caught unprepared for an emergency situation like quarantine, each country has introduced different practices in line with its projections for the process. While some countries decided to suspend educational activities; others, including Turkey, quickly adapted to the new order and decided to switch to distance education. Educational activities in primary and secondary schools in Turkey was initially suspended on 12 March 2020; however were resumed in the form of distance education in one week (Öztürk & Çetinkaya, 2021, p. 142). Considering the higher education institutions,

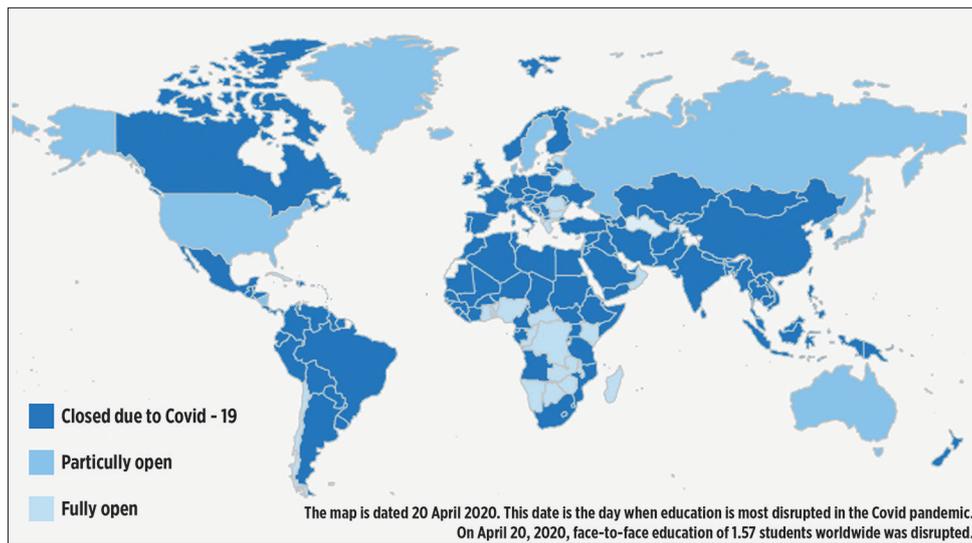


Figure 1. Countries where education has been interrupted due to the COVID-19 outbreak (UNESCO, 2021).

educational activities were temporarily suspended on March 16, 2020; and finally all institutions started distance education within an average of three weeks following the transition period. A “Distance Education Roadmap” was determined by the Council of Higher Education (YÖK) on March 17, 2020 and five major areas, namely legislation, infrastructure, human resources, academic curriculum and implementation, were included in this map. Thanks to this roadmap, it is envisaged to make use of digital opportunities and distance education methods for theoretical courses within the scope of applied sciences and to lecture applied courses at the most appropriate time (extending the academic calendar is also among the options considered in this regard) determined by the universities. Hence it is aimed to hinder any interruption in this process by using distance education and digital opportunities, provided that they are auditable (Saraç, 2020). According to the press release published by the Council of Higher Education (YÖK), the presence of UZEMs (Distance Education Application and Research Center) in 123 universities in Turkey as of 2020 reveals that Turkey is quite advanced in terms of infrastructure. The needs of the universities, which are disadvantageous in this regard, were met by ensuring their cooperation with other universities under the coordination of the Council of Higher Education (YÖK) (Yamamoto & Altun, 2020, p. 29).

Devran and Elitaş (2017) highlighted the following fundamental ideas and features about distance education:

- No obligation regarding age and level of education,
- No restrictions regarding time and space,
- No obligation regarding physical participation,
- The advantage of the system being monitored from a single center,
- Prioritizing the principle of volunteerism,
- Opportunity to deliver education to any place where infrastructure is ready
- Effective use of mass media and electronic media in learning and communication (p. 33).

Figure 2 exhibits Urdan and Weggen’s figurative statements as of about the concepts related to distance

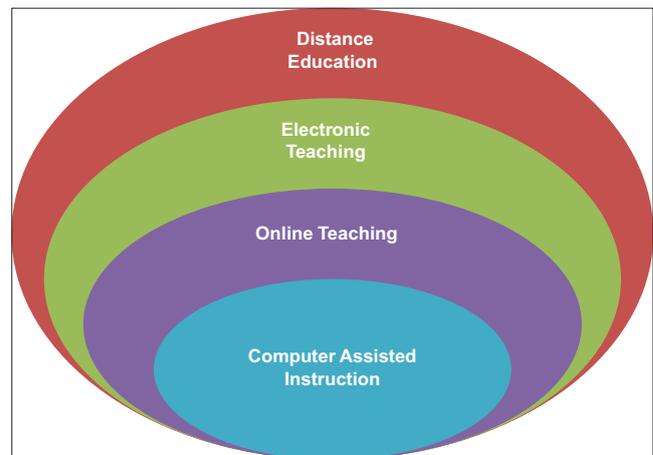


Figure 2. Distance education methods (Çukadar & Çelik, 2003, p. 34)

education. When examining these concepts from most basic to the most general, computer-assisted instruction, on-line teaching, teaching model conducted with CD and DVD technology is defined as the teaching model making use of all electronic media (CD and DVD technology, internet and intranet infrastructures, satellite, video etc.). Distance education, on the other hand, includes all other distance education models.

Since distance education using online tools is the only option available to cope with the challenges of the pandemic, the term “Emergency Remote Teaching” (ERT) has been used in order to distinguish this distance education method from other distance education and learning forms (Akban et al., 2021, p. 98). Differences between the concepts of distance education and emergency remote teaching are explained by Bozkurt (2020) as follows:

- Distance education is a systematic and planned education method based on field-specific theoretical and practical knowledge; however, emergency remote teaching is not an option, it is an obligation that is difficult to plan and aims to keep education alive in emergency situations.

- Distance education continues within the framework of lifelong learning and tries to produce permanent solutions; however, emergency remote teaching offers temporary solutions for the current need.
- These two terms are referred to in the international literature as “distance education” and “emergency remote teaching”. Although both concepts are expressed with the same word in our language, the concept of “remote” emphasizes a physical distance, while the concept of “distance” emphasizes both a physical, transactional and psychological distance (Bozkurt, 2020, p. 117).

The success of distance education is proportional to the digital literacy levels of teachers and students. Literacy refers to the concept that means literate, educated (TDK, 2021). Digital literacy, on the other hand, stands for ability to use and understand information in a wide range, in multiple formats, and presented by computers (Glister, 1997, p. 1). Digital literacy is one of the most important skills of the twenty-first century. It is crucial for teachers to have digital literacy skills in order to use the classroom environment more efficiently with digital resources (Ocak & Karakuş, 2019, p. 130). It is of great importance for teachers and students to be able to acquire information from digital environments, use this information and produce and share new information and environments with the information they have acquired, in terms of being a digitally literate society (Avcı, 2020, p. 113). Emergency remote teaching activities, executed intensively all over the world due to the COVID-19 outbreak, promised important gains while on the other hand also brought problems that should be considered (Sezgin, 2021, p. 275).

History of Distance Education in Turkey and Emergency Remote Teaching throughout the COVID-19 Outbreak

Former experiences of the countries have been very useful throughout this process where distance education has been rapidly adopted and put into practice; hence many countries have been able to implement distance education without experiencing infrastructure problems. Turkey has also become one of the countries that can adapt to this process and succeeded in the transition to distance education the fastest; while this practice was quite successful in some areas, infrastructure problems were encountered in some areas. The first implementations of distance education in Turkey date back to 1927. Evaluating the relevant period, it was concluded that physical deficiencies of educational institutions have led to the development of distance education. On June 2, 1927, the Minister of National Education of the period, Undersecretary, Members of the Board of National Education and Discipline, 11 ministers of national education and the general director came together and discussed the basic problems of national education in Turkey. In this meeting, the education systems of the developed countries were examined and it was agreed that optimum solution for providing a solution for the education problem in Turkey is using letters for teaching (Arar, 1999, p. 26). As of 1950s, distance education was implemented by Ankara University Faculty of Law, Banking and Commercial Law Research Institute. The contributions

of the method of using letters for teaching implemented at the beginning of 1960s attracted the attention of the Ministry of National Education and attempts were made on using letters for teaching in partnership with the Undersecretariat of Vocational and Technical Education and the Ministry of National Education and a Center for Teaching via Letters was established affiliated to the Directorate of Statistical Publications (Kırık, 2014, p. 83). With a decree issued in 1982, Anadolu University was assigned to carry out open education activities. Subsequently, the practice of distance education has become widespread in Turkey owing to the contributions of Fırat University, Middle East Technical University, Sakarya University, İstanbul University and Atatürk University (Gürer et al., 2016, p. 52). As of 2020, there are over 2 million undergraduate students in Turkey studying only with open and distance education (Council of Higher Education, 2021).

The fact that distance education was not pre-planned as an alternative to face-to-face education caused infrastructure, content and access problems in emergency situations. Ministry of National Education and the Council of Higher Education initiated the distance education process shortly after the pandemic was declared and uploaded the maximum content possible during this period; unfortunately, the digital facilities of the institutions were not sufficient at the same level for both teachers and students. With the interruption of face-to-face education and transition to distance education, unfamiliarity with the practices, concerns about the epidemic and the anxiety of supporting the students, the risk of private institution teachers of being unemployed and financial difficulties caused stress. Digital literacy, in particular, and the lack of experience in terms of technological pedagogy has been a separate concern for teachers (Toquero, 2020, p.167). Yılmaz (2021) examined the digital literacy status of pre-service teachers studying in different departments during COVID-19 pandemic and found significant differences in variables; such as grade level and department. This shows that not all undergraduate students have the same readiness for digital literacy. The study by Aksoy et al. (2021) which investigated the digital literacy levels of teachers during the pandemic, concluded that as the ages of teachers increase, their digital literacy levels decrease; whereas the same digital literacy level increase in parallel with the level of their graduate education. Technology has a positive effect on educational materials day by day. However, the overall education received at undergraduate level falls behind these technological developments. The only way for a teacher and a student to benefit from a problem-free distance education system with a rich content integrated in, is to acquire digital literacy. Even though the programs and contents were immediately developed when COVID-19 hit, the lack of time for teacher training has caught the teachers off guard (Aydın, 2020).

As in every field of education, academic studies have been carried out in Turkey for emergency remote teaching in the field of music education. There are several studies conducted by Ayaz and Albuz (2021); Sakarya and Zahal (2020); Sağer et al. (2020); Bolat and Akıncı (2020); Umuzdaş and Baş (2020) and Küçük (2020) investigating subjects such as the opinions

of teachers and students in the field of music education during COVID-19 outbreak, current status of instrument education and institutions as well as the transformation in music education.

The opinions of teachers and students on the impact of the pandemic process on music education, which is one of the main branches of the education sector, is very important. Taking the opinions of prospective teachers studying in the department of music education about the opportunities they have within the scope of the emergency remote teaching process, their adaptation to the process, their participation in the course and the quality of the education provided is crucial in terms of making improvements for an emergency remote teaching need, which should be considered in the face of the risk of the continuation of the process.

In the light of all this preliminary information; the problem statement of this research was determined as “What are pre-service music teachers’ views on piano lessons provided in the emergency remote teaching process during COVID-19 lockdown?”.

Answers to the following research questions were sought within the framework of this main problem statement:

1. Which technological device do pre-service music teachers follow in piano lessons provided in emergency remote teaching process during COVID-19 lockdown?
2. What are pre-service music teachers’ views on the opportunities they had in piano lessons provided in emergency remote teaching process during COVID-19 lockdown?
3. What are pre-service music teachers’ views on course process with respect to piano lessons provided in the emergency remote teaching process during COVID-19 lockdown?
4. What are pre-service music teachers’ personal views on piano lessons provided in the emergency remote teaching process during COVID-19 lockdown?
5. What are pre-service music teachers’ views on the qualification of the piano lessons provided in the emergency remote teaching process during COVID-19 lockdown?
6. What are pre-service music teachers’ suggestions on piano lessons provided in the emergency remote teaching process during COVID-19 lockdown?

METHOD

Research Model

This study, which aims to assess pre-service music teachers’ views on piano lessons provided in the emergency remote teaching process during COVID-19 lockdown, was carried out using the survey model, which is one of the quantitative research methods. Survey is referred to as identifying the opinions of the participants on a topic or event or their interest, skills, attitudes, talents and other characteristics (Büyüköztürk et al., 2010, p. 231).

Population and Sample

All of the objects and individuals that fall into the field of any research or observation are referred to as the “population”

(Kaptan, 1998, p. 116). Sample, on the other hand, is the cross-section selected from within the cluster studied in order to be further investigated to reach the right information or the right decisions about the cluster in question. Thus, accessing information about the cluster in general is facilitated by examining only a part of the cluster (Arıkan, 2007, p.139). The population of this research consists of pre-service music teachers studying in Department of Music Education in Kastamonu University and Gazi University and have received distance piano education in the spring semester of the 2020-2021 academic year due to the pandemic outbreak. There are a total of 87 students who have selected and approved the piano courses at both universities. Since whole population is reached, the sample is said to represent the population. Demographic characteristics of pre-service music teachers participating in the research are as shown in Table 1.

The universities where pre-service teachers participating in the study are currently studying are Kastamonu University (n=35) and Gazi University (n=47). The distribution of the participants on the basis of gender is almost equal. The numerical distribution of pre-service music teachers with respect to their grade levels of the piano courses is not equal. The curriculum of the bachelor’s degree program on music education affiliated to faculties of education were updated by Council of Higher Education (YÖK) in 2018. Thereafter piano course was programmed as 2 semesters at the 1st grade level and were not included in the other grade levels. The high number of pre-service music teachers studying at the first year of the bachelor’s degree may be explained by this update in the academic program. Participants who are studying in the 4th year of the bachelor’s degree program have the opportunity to take piano courses at any grade level since they are subject to the academic program before 2018. The lower number of participants from 2nd and 3rd year bachelor’s degree program may be explained by the repeated courses in accordance with the former academic program. Majority of pre-service music teachers are observed to be attending to

Table 1. Demographic characteristics of pre-service music teachers participating in the research

		f	%
University	Kastamonu University	35	42.7
	Gazi University	47	57.3
	Total	82	100
Gender	Female	42	51.2
	Male	40	48.8
	Total	82	100
Grade Level of Piano Lesson Provided	Bachelor’s Degree 1. Class	33	40.2
	Bachelor’s Degree 2. Class	11	13.4
	Bachelor’s Degree 3. Class	10	12.2
	Bachelor’s Degree 4. Class	28	34.1
	Total	82	100
Attendance	Attending	82	93.9
	Absent	5	6.1
	Total	82	100

piano courses lectured via emergency remote teaching. The number of pre-service music teachers who have enrolled in the piano courses however are absent is very low. When the reasons for absenteeism of these students were investigated, it was concluded that n=3 participants responded as “I couldn’t get the efficiency I expected from distance education” whereas n=2 participants responded as “My economic status does not allow me to buy a piano of my own”. 82 students who are enrolled in piano courses and attended their lessons were included in the study on a voluntary basis.

Data Collection Tools

A “Pre-service Teacher Feedback Form” was prepared by the researchers in order to assess pre-service music teachers’ views on piano lessons provided in the emergency remote teaching process during COVID-19 lockdown. Three faculty members with PhD degrees in music education were consulted while forming the general framework of the form and a draft form consisting of 6 sections and 22 questions was prepared in line with the opinions received. The draft form was presented to the expert opinion and was finalized as 6 sections and 19 questions. The form is consisting of five-point Likert type statements with options such as “Strongly Agree”, “Agree”, “Undecided”, “Disagree” and “Strongly Disagree”.

Data Analysis

Created pre-service teacher feedback form was converted into Google Documents and delivered to pre-service music teachers. The form aimed to derive the cumulative score of the common views of the pre-service music teachers. For this reason, the score ranges in the form were determined as shown in Table 2.

By means of the form, mean score of the data obtained in line with the pre-service teachers’ views and the direction in which the common views are accumulated were determined. The results obtained are exhibited under the relevant tables.

RESULTS

Technological device used in the remote teaching Process during COVID-19 Lockdown

This research question focuses on the technological device used by pre-service music teachers in their piano lessons conducted during emergency remote teaching. Results are exhibited in Figure 3.

Figure 3 exhibits that pre-service music teachers followed their piano lessons lectured via emergency remote teaching method during COVID-19 lockdown using three different electronic devices. Most common electronic device used by the participants to attend the classes is the computer (n=51). Second most common device, immediately after the computer, used by the participants to attend the classes is mobile phone (n=29). The number of participants who attend piano lessons on a tablet computer is rather low (n=2). The use of computers for educational purposes in the world dates

Table 2. Common score ranges for pre-service teacher feedback form

Feedback Form	Common Score Range
Strongly Agree	4.21 - 5.00
Agree	3.41 - 4.20
Undecided	2.61 - 3.40
Disagree	1.81 - 2.60
Strongly Disagree	1.00 - 1.80

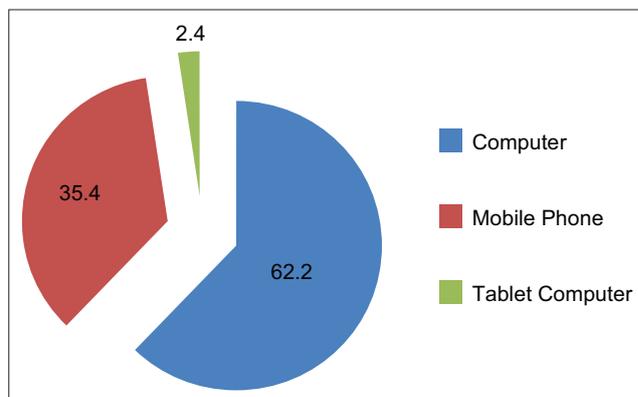


Figure 3. Variety of electronic devices used by pre-service music teachers in piano lessons

back to 60s. Computers were first used as an educational tool in Japan in the 1960s; this was followed by France (1970), England (1973), Germany (1975) and America (1982) respectively (Akgün & Akgün, 2011, pp. 154-155). In Turkey, however, the computer was able to find a place in the field of education for the first time after the 1990s. It literally completed the process of being used as an educational tool even in the 2000s. Smartphone, on the other hand, were first used for educational purposes in 2002. Tablet computers first took their place among mobile technologies as of 2010. Although a tablet computer offers almost the same features as mobile phones, it is similar to laptop computers in terms of working area (Rothman et al., 2017, p. 807). Therefore, the use of computers both as a part of our daily life and as an educational material dates back earlier when compared to that of mobile phones and tablet computers; however, computers are the most comprehensive devices among all technological devices in terms of size and features.

Views of Pre-service Music Teachers on the Opportunities they had in Piano Lessons during Emergency Remote Teaching

This research question assesses pre-service music teachers’ views on the opportunities they had in piano lessons provided during emergency remote teaching throughout COVID-19 lockdown. The results obtained are exhibited in Table 3.

Pre-service music teachers’ views on the opportunities offered with respect to piano lessons provided in the emergency remote teaching process during COVID-19 lockdown are exhibited in Table 3. Accordingly, majority of the pre-service teachers have a strong internet infrastructure that

Table 3. Pre-service music teachers' views on the opportunities offered with respect to piano lessons provided in the emergency remote teaching process during COVID-19 lockdown

Statements revealing pre-service music teachers' views on the opportunities offered with respect to piano lessons provided in the emergency remote teaching process during COVID-19 lockdown	Mean score of the statements revealing pre-service music teachers' views on the opportunities offered with respect to piano lessons provided in the emergency remote teaching process during COVID-19 lockdown
• I have a strong internet infrastructure that I need for distance education	3.76
• Since I have my own piano or keyboard at home, I had no problems with distance education.	3.86
• I have a suitable room at home with the physical facilities that I need to do my piano lessons.	3.35

they need for distance education. The percentage of pre-service teachers who have their own piano or keyboard at home is still quite high. However, the percentage of pre-service teachers specifying that they have a suitable room at home with the physical facilities that they need to follow piano lessons are decreasing. This situation may be explained by reasons such as having more than one child in the family, having to share the same room with other siblings or not having a room of one's own.

Views of Pre-service Music Teachers on the Course Process of Piano Lessons during Emergency Remote Teaching

This question analyzes music teachers' views on the course process of piano lessons conducted in emergency remote teaching process during COVID-19 lockdown. The results obtained are exhibited in Table 4.

Table 4. Pre-service music teachers' views on the course process with respect to piano lessons provided in the emergency remote teaching process during COVID-19 lockdown

For the purpose of the 3rd research question; we assessed pre-service music teachers' views on the course process with respect to piano lessons provided in the emergency remote teaching process during COVID-19 lockdown and we concluded that views are generally average and below. Participants stated that audio synchronization in the piano lessons provided in the emergency remote teaching process poses a problem for both themselves and their teachers. The table for visual synchronization is somewhat more optimistic. Considering the audio and visual synchronization with respect to piano lessons, it is obvious that audio synchronization is essential in instrument training. For sure audio

Table 4. Pre-service music teachers' views on the course process with respect to piano lessons provided in the emergency remote teaching process during COVID-19 lockdown

Statements specifying pre-service music teachers' views on the course process with respect to piano lessons provided in the emergency remote teaching process during COVID-19 lockdown	Mean scores regarding the statements specifying pre-service music teachers' views on the course process with respect to piano lessons provided in the emergency remote teaching process during COVID-19 lockdown
• Audio synchronization is a problem for my teacher in the emergency remote teaching process.	3.69
• Audio synchronization is a problem for me in the emergency remote teaching process.	3.81
• Visual synchronization is a problem for my teacher in the emergency remote teaching process.	3.30
• Visual synchronization is a problem for me in the emergency remote teaching process.	3.35
• Piano lessons provided in the emergency remote teaching process over existing infrastructures (perculus +, zoom, teams etc.) is satisfying.	2.56
• I am glad to be able to watch the piano lessons again later.	4.02
• The duration of the piano lessons provided in the emergency remote teaching process is enough for the content of the course.	2.41
• Piano lessons provided in the emergency remote teaching process is enough for me to understand the technical specifications of the etudes and works I have studied.	2.46
• Piano lessons provided in the emergency remote teaching process is enough for me to understand the musical specifications of the etudes and works I have studied.	2.42

and visual synchronization are jointly fundamental issues; however, visual synchronization will remain in the background in the course of an instrument education whose audio synchronization is not good enough. At this point, problems

encountered by students in terms of audio synchronization is a very negative situation in terms of their education. The percentage of positive opinions expressed by pre-service music teachers about piano lessons provided in the emergency remote teaching process over existing infrastructures is quite low. This indicates that the infrastructures used by universities are not completely sufficient for piano education. Recording piano lessons and offering the opportunity to watch them again later is one of the subjects for which a high number of pre-service music teachers expressed positive opinions. The opportunity to watch the lectures and studies again provides reinforcement for the studies and works that people need to study, and enables them to reach the right example at any time. However pre-service music teachers specified that piano lessons provided in the emergency remote teaching process is not sufficient for to understand neither the technical nor the musical requirements of the etudes and works.

Personal Opinions of Pre-service Music Teachers on the Piano Lessons Conducted during Emergency Remote Education

This research question inquires pre-service music teachers' personal opinions on the piano lessons provided in the emergency remote teaching process during COVID-19 lockdown and the results obtained are exhibited in Table 5.

Examining the personal views of pre-service music teachers on the piano lessons provided in the emergency remote teaching process, very low scores are reflected in the table.

Table 5. Personal opinions of pre-service music teachers on the piano lessons conducted during emergency remote education

Personal views of pre-service music teachers' on the piano lessons provided in the emergency remote teaching process during COVID-19 lockdown	Mean scores regarding the personal views of pre-service music teachers' on the piano lessons provided in the emergency remote teaching process during COVID-19 lockdown
• Distance education is not a real school environment, therefore it increases my motivation to study piano in terms of the comfort with respect to time and space.	2.58
• I would like to take piano lessons with distance education method even after the pandemic process ends.	1.78
• Distance education is more effective than traditional education.	1.68
• I can access the materials (notes, records etc.) we use in the piano lesson more easily and quickly in distance education.	2.96

Table 5 reveals that the scores regarding the personal views of pre-service music teachers regarding all the items are average and below. While distance education is considered to be motivating in many other fields of education compared to the real school environment in terms of providing comfort in time and space, it was not found to be motivating for pre-service music teachers receiving piano education. Pre-service music teachers have expressed that they would not prefer taking piano lessons with distance education method even after the pandemic process ends and that traditional education method is more effective in this regard. The scores of common views regarding the speed and ease of access to the materials used in piano lessons is again quite low. Studies carried out in the field of education also indicate that the digital literacy levels of students are rather low. With this in mind, it can be suggested that there is a link between the effective use of remote education systems and insufficient digital literacy level.

Opinions of Pre-service Music Teachers on the Quality of the Piano Lessons Conducted during Emergency Remote Education

Here, pre-service music teachers were asked to rate the quality of the piano lessons they have received with scores ranging between 1 and 10 and the findings are exhibited in Figure 4.

Pre-service music teachers are asked to rate the quality of the piano lessons they have received in the emergency remote teaching process with scores ranging between 1 to 10 and mean score was determined as "4.65". This score indicates that pre-service music teachers evaluate the quality of the piano education they have received as very low.

Suggestions of Pre-service Music Teachers for the Piano Lessons Conducted During Emergency Remote Education

The final question of the study investigates pre-service music teachers' suggestions on piano lessons provided in the emergency remote teaching process during COVID-19. All the suggestions of the pre-service music teachers were gathered under 7 categories and a total of 98 suggestions were categorized under these 7 categories.

Table 6. Suggestions of pre-service music teachers for the piano lessons conducted during emergency remote education

Suggestions of pre-service music teachers on emergency remote teaching process are exhibited in Table 6. Eight of the pre-service teachers did not make any suggestions, while the rest made at least one and at most two suggestions. Data obtained were coded and divided into categories and gathered under 7 basic categories. Majority of the pre-service teachers recommend that piano lessons should be held face-to-face by taking necessary precautions. Updating and/or improving the infrastructures used by universities is also a highly recommended opinion. Other suggestions mentioned by pre-service teachers are increasing the duration of the lessons, solving the synchronization problem and providing one-on-one piano lessons. A pre-service teacher suggested that piano lessons should be followed asynchronously.

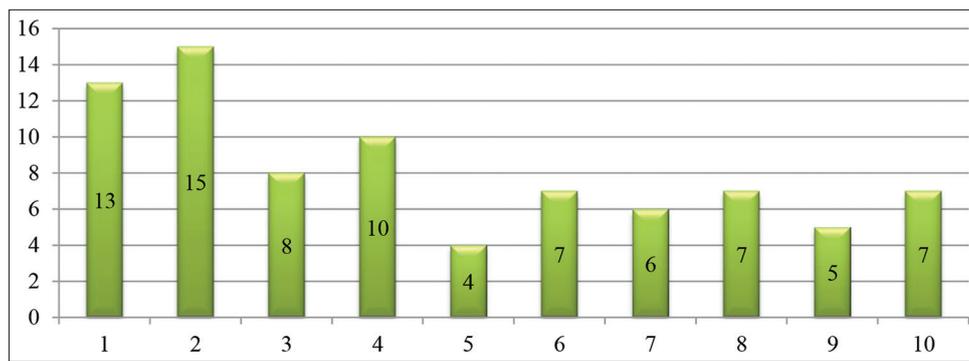


Figure 4. Opinions of pre-service music teachers on the quality of the piano lessons conducted during emergency remote education

Table 6. Suggestions of pre-service music teachers for the piano lessons conducted during emergency remote education

Suggestions of Pre-service Music Teachers on Piano Lessons Provided in the Emergency Remote Teaching Process during COVID-19 Lockdown	f	%
Piano lessons should be provided face to face by taking necessary precautions.	24	24.49
The infrastructure used by my university should be updated/improved.	21	21.43
The duration of piano lessons should be increased.	18	18.36
A solution should be found for the synchronization problem.	14	14.28
Piano lessons should be provided one-on-one.	12	12.26
I have no suggestions	8	8.16
I should be able to watch piano lessons asynchronously.	1	1.02
Total	98	100

DISCUSSION AND CONCLUSION

This study, which aims to assess pre-service music teachers' views on piano lessons provided in the emergency remote teaching process during COVID-19 lockdown, revealed that;

- Most frequently used electronic device by pre-service music teachers to follow piano lessons provided in the emergency remote teaching process is computer (n=51), the second most frequently used electronic device is mobile phone (n=29) and the least frequently used technological device is tablet computers (n=2). Sakarya and Zahal (2020), in their study investigating the views of students on violin courses offered in the emergency remote teaching process during COVID-19 lockdown, concluded that majority of the students participated in distance education via a computer, less with a mobile phone and a very few of them with a tablet computer. These two studies support each other in terms of their methods, aims and results.
- It has further been determined that the participants have a strong internet infrastructure that they need to attend distance education, the rate of having piano or keyboard facilities at home to follow piano lessons is average and

the rate of having a suitable room equipped with physical facilities to take piano lessons is quite low. In his study, Sarıkaya (2021) analyzed the views of students studying music education on the emergency remote teaching process, and concluded that students experience difficulties in accessing technological resources.

- Pre-service teachers stated that audio synchronization poses a problem for both their teachers and themselves throughout piano lessons provided in the emergency remote teaching process during COVID-19 lockdown while visual synchronization is better compared to that of audio synchronization; infrastructures over which the lessons are provided do not meet the necessary qualifications for piano education. Gül (2021), in his study assessing the views of teachers on music education practices in general throughout distance education process, concluded that the infrastructures were insufficient as instrument courses are rather categorized within applied arts and that synchronization problems negatively affected the lessons. The only situation where the participants gave a high score in this sub-dimension of the research is the opportunity to watch the piano lessons again. Gül (2021), in his study assessing the views of pre-service teachers on distance education process, concluded that pre-service teachers positively evaluate the opportunity to record and watch the lessons again. Pre-service teachers also stated that the duration of piano lessons is insufficient in terms of the efficiency of the content of the lesson. Another situation for which the participants reported negative opinions is that the piano lessons provided through distance education are insufficient in terms of acquiring the technical and musical requirements of the etudes and works they studied.
- The pre-service teachers who participated in the research stated that as distance education does not offer a real school environment and atmosphere, it provides comfort in terms of time and space, therefore does not increase their motivation to study piano. In addition, the participants who think that traditional education is more effective than distance education stated that they would prefer to take piano lessons face-to-face, rather than via distance education, when the pandemic process is over. Okay (2021), in his study investigating the experiences of instrument trainers with respect to distance

education, concluded that the instructors would prefer providing face-to-face instrument education to distance education. This indicates that the insufficient digital literacy level encourages pre-service music teachers to conduct instrument lessons face-to-face, rather than remotely. While other items in this sub-dimension of the study received a consensus below the average, it has been determined that the common view on that the access to the materials used in piano lessons is easier and faster in the distance education process is above the average.

- The opinions of pre-service music teachers on the qualification of the piano lessons they have received in the emergency remote teaching process were scored as "4.65".
- In the last sub-dimension of the research, in which the suggestions of the participants were determined in terms of piano lessons they have received in the emergency remote teaching process, a total of 98 suggestions were determined in 7 categories. While the most emphasized suggestion stated that the piano lessons should be provided face to face by taking the necessary precautions, the least emphasized suggestion required piano lessons to be followed asynchronously.

The pandemic outbreak, which affected the whole world and created a global crisis in the field of education, also directly negatively affected piano education, which is an applied field of music education. The piano lesson, by its nature, is based on the master-apprentice relationship and is provided on a one-to-one basis; this makes it difficult to carry out the lesson with large numbers of students and to follow it asynchronously, as in many other areas of education. This situation also creates problems for piano instructors, while it also causes the qualification of education received by students to decrease.

In the light of all this information provided above;

- Like other fields of instrument education, the opinion that face-to-face education is the best quality method in piano education is prominent. In this respect, the necessary precautions should be taken and the instrument lessons should be provided face to face as soon as possible.
- Although our educational institutions have a deep-rooted history and success in distance education, the pandemic outbreak revealed that we are unprepared and inadequate for emergency remote teaching. Emergency remote teaching should be considered as an alternative for such cases; hence materials and infrastructure should be strengthened and kept up-to-date against the possibilities. This also shows that the digital literacy level of teachers and students play a vital role in this process and therefore needs to be reinforced for other potential situations.
- Scientific studies carried out in every field of education play an active role in determining the educational policies to be put into practice in that field. In this respect, scientific researches that determine the situation are of great importance. It is important to determine the positive and negative aspects of the emergency remote

teaching process in each field of education and for each lesson, in order to increase the quality of education in the future. Therefore, it is recommended to conduct due diligence studies in each field of education.

REFERENCES

- Akbana, Y. E., Rathert, S., & Ağçam, R. (2021). Emergency remote education in foreign and second language teaching. *Turkish Journal of Education*, 10(2), 97-124. doi:10.19128/turje.865344.
- Akgün, M., & Akgün, I. H. (2011). *Dünyada ve Türkiye'de bilgisayar destekli öğretimin tarihi gelişimi*. 2nd International Conference on New Trends in Education and Their Implications. 27-29 Nisan, Antalya.
- Aksoy, Y., Güçlü, O., & Nayir, A. E. (2020). Özel müzik kurslarının pandemi sürecindeki uzaktan eğitim durumları. *Milli Eğitim Dergisi*, 49(1), 947-967. doi:10.37669/milliegitim.827709.
- Arar, A. (1999). *Uzaktan eğitimin tarihsel gelişimi, uzaktan eğitim uygulama modelleri ve maliyetleri*. 1. Uzaktan Eğitim Sempozyumu 15-16 Kasım. Ankara: Kara Kuvvetleri Eğitim ve Doktrin Komutanlığı.
- Arıkan, R. (2007). *Araştırma teknikleri ve rapor hazırlama*. (6. Baskı). Asil Yayın Dağıtım.
- Avcı, A. (2020). Music education in digital literacy. *Akra Kültür Sanat ve Edebiyat Dergisi*, 20(8), 111-131. Doi: 10.31126/akrajournal.650884
- Ayaz, T. D., & Albuz, A. (2021). Covid-19 pandemi sürecinde 4-13 yaş grubu öğrencilerine yönelik uzaktan çalgı öğretimine ilişkin öğretmen görüşleri. *Dumlupınar Üniversitesi Eğitim Bilimleri Enstitüsü Dergisi*, 5(1), 21-43.
- Aydın, G. Ç. (2020). *COVID-19 salgını sürecinde öğretmenler*. TEDMEM. <https://tedmem.org/covid-19/covid-19-salgini-surecinde-ogretmenler>.
- Bayburtlu, Y. S. (2020). Covid-19 pandemi dönemi uzaktan eğitim sürecinde öğretmen görüşlerine göre Türkçe eğitimi. *Turkish Studies* 15(4), 131-151. doi: 10.7827/TurkishStudies.44460.
- Bolat, M., & Akıncı, M. Ş. (2020). *Müzik alanındaki öğretim elemanlarının covid-19 süreçlerine ilişkin görüşleri*. II. Uluslararası 29 Ekim Bilimsel Araştırmalar Sempozyumu 29-31 Ekim 2020, Ankara.
- Bozkurt, A. (2020). Koronavirüs (Covid-19) pandemi süreci ve pandemi sonrası dünyada eğitime yönelik değerlendirmeler: Yeni normal ve yeni eğitim paradigması. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi*, 6(3), 112-142.
- Büyüköztürk, Ş., Çakmak, E. K., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2010). *Bilimsel araştırma yöntemleri*. (6. Baskı). Pegem Akademi Yayınları.
- Çukadar, S., & Çelik, S. (2003). İnternete dayalı uzaktan öğretim ve üniversite kütüphaneleri. *Doğuş Üniversitesi Dergisi*, 4(1), 31-42.
- Devran, Y., & Elitaş, T. (2020). Uzaktan eğitim: fırsatlar ve tehditler. *AJIT-e: Online Academic Journal of Information Technology*, 8(27), 31-40. doi: 10.5824/1309-1581.2017.2.003.x

- Gül, G. (2021). Teachers' views on music education practices in secondary education in distance education during the COVID-19 pandemic process. *Journal of Education in Black Sea Region*, 6(2), 95-111.
- Gürer, M. D., Tekinarslan, E., & Yavuzalp, N. (2016). Çevrimiçi ders veren öğretim elemanlarının uzaktan eğitim hakkındaki görüşleri. *Turkish Online Journal of Qualitative Inquiry (TOJQI)*, 7(1), 47-78. doi: 10.17569/tojqi.74876.
- Jahangir, M. A., Muheem, A., & Rizvi, M. F. (2020). Coronavirus (COVID-19): History, current knowledge and pipeline medications. *International Journal of Pharmaceutics & Pharmacology* 4(1), 1-9. doi:10.31531/2581-3080.1000140.
- Kaptan, S. (1998). *Bilimsel araştırma ve istatistik teknikleri*. (Geliştirilmiş 11. Baskı.). Ankara: Tekışık Web Ofset Tesisleri.
- Kırık, A. M., (2014). Uzaktan eğitimin tarihsel gelişimi ve Türkiye'deki durumu. *Marmara İletişim Dergisi*, 21, 73-94. doi: 10.17829/midr.20142110299.
- Küçük, P. D. (2020). Covid-19 salgını sürecinde müzik öğretmeni adaylarının uzaktan eğitime yönelik görüşlerinin incelenmesi. *The Journal of Social Sciences*, 7(47), 19-40. doi:10.29228/SOBIDER.44497.
- Ocak, G. & Karakuş, G. (2019). An investigation of digital literacy self-efficacy skills of pre-service teachers in terms of different variables. *Afyon Kocatepe University Journal of Social Sciences*, 21(1), 129-147. doi: 10.32709/akusosbil.466549
- Okay, H. H. (2021). Turkish instrument educators' distance education experiences related to instrument training during the COVID-19 pandemic. *Cypriot Journal of Educational Science*, 13(2), 201- 222. doi:10.18844/wjet.v13i2.5690.
- Öztürk, B., & Çetinkaya, A. (2021). Pandemi döneminde bir eğitim aracı olarak televizyon: TRT EBA TV. *İNİF E- Dergi*, 6(1), 140-162. doi:10.47107/inifeder-gi.886813.
- Rothman, B. S., Grupta, R. K., & Mcevoy, M. D. (2017). Mobile technology in the perioperative arena: rapid evolution and future disruption. *Anesthesia & Analgesia Journal*, 114(3), 807-818. doi:10.1213/ANE.0000000000001858.
- Sağır, T., Özkişi, G., & Yüceer, E. M. (2020). Covid-19 pandemi sürecinin müzik dinleme ve icra pratiklerine etkileri: yıldız teknik üniversitesi lisans öğrencileri örneği. *Akdeniz Üniversitesi Uluslararası Müzik ve Sahne Sanatları Dergisi*, 4, 1-17.
- Sakarya, G., & Zahal, O. (2020). Covid-19 pandemi sürecinde uzaktan keman eğitimine ilişkin öğrenci görüşleri. *Turkish Studies*, 15(6), 795-817. doi:10.7827/TurkishStudies.44504.
- Saraç, Y. M. A. (2020). *Pandemi günlerinde Türk yükseköğretimi*. YÖK. <https://covid19.yok.gov.tr/Sayfalar/HaberDuyuru/pandemi-gunlerinde-turkyuksekogretimi.aspx>. (15 Mayıs 2021).
- Sarıkaya, M. (2021). Pandemi sürecinde uzaktan eğitime ilişkin müzik eğitimianabilim dalı öğrencilerinin görüşleri. *Üniversitesi GüzelSanatlar Enstitüsü Dergisi*, 27(46), 92-100. <https://doi.org/10.35247/ataunigsed.835720>.
- TDK (2021). Türk Dil Kurumu. <https://sozluk.gov.tr/> (20 June 2021)
- Toquero, C. M. (2020). Emergency remote education experiment amid COVID-19 pandemic in learning institutions in the Philippines. *International Journal of Educational Research and Innovation*, 15, 162-176. doi:10.46661/ijeri.5113.
- Umuzdaş, S., & Baş, A. H. (2020). Konservatuvar öğrencilerinin covid-19 salgını sürecindeki uzaktan eğitim ile ilgili algılarının ve deneyimlerinin araştırılması (Tokat ili örneği). *Yegâh Müsiki Dergisi*, 3(2), 204-220.
- UNESCO (2021). School closures caused by Coronavirus (Covid-19). UNESCO. <https://en.unesco.org/covid19/education-response>. (May 15, 2021).
- WHO. (2021). <https://covid19.who.int/> (15 Mayıs 2021).
- Yamamoto, G. T., & Altun, D. (2020). Coronavirus ve çevrimiçi (online) eğitimin önlenemeyen yükselişi. *Üniversite Araştırmaları Dergisi*, 3(1), 25-34. doi: 10.26701/uad.711110.
- Yılmaz, Ö. (2021). Öğretmen adaylarının dijital okuryazarlık beceri düzeylerine ilişkin görüşlerinin değerlendirilmesi. *Electronic Journal of Education Sciences*, 10(19), 17-27.
- YÖK. (2021). *Yükseköğretim bilgi sistemi*. <https://istatistik.yok.gov.tr> (15 May 2021).