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Abstract

The COVID-19 pandemic has led to many fundamental changes in all education systems. Without adequate preparation and necessary infrastructure qualifications, many educational institutions started to implement online-based distance education systems. The benefits of online learning for music education depend on certain variables that affect the quality of online learning. One of these variables is readiness for online learning. In this context, on the basis of the causal-comparative model, the readiness of music teachers for online learning was examined by comparing them according to the variables of gender, professional seniority and type of school. The research was conducted on 203 teachers at secondary and high schools in Konya, Aksaray and Karaman using The "Readiness for Online Learning" Scale as a data collection tool. As a result of the analysis of the research data, significant differences were found in the levels of music teachers' readiness for online learning according to the variables of gender, professional seniority and the school they work at. According to participant opinions, the level of readiness for online learning of male music teachers, participants with low professional seniority and working in private schools was found to be significantly higher.

Introduction

One of the areas where the effects of the pandemic have been felt the most in Turkey, as in many other countries with COVID-19 cases, has been the education sector. In order to control the spread of the virus and to prevent the risk of infection in students, all education in primary, high school and higher education was shifted to distance education. With the decision of the Council of Higher Education (YÖK), theoretical and practical education has been carried out in all universities through distance education (Almaiah et al., 2020; Atilgan & Tukel, 2021; Çarkın, 2021; Saraç, 2020; YOK, 2020; Yucesoy-Ozkan et al., 2020). In addition to all the basic regulations such as social distancing to prevent the spread of COVID-19, all experts and administrators agreed that distance learning is the best practice to achieve this in education. Thus, distance education systems were put into practice at all education levels, which has led to many fundamental changes in the entire education system.

Many educational institutions started to implement online-based distance education systems, although they did not have any preparation and necessary infrastructure qualifications. In this respect, both teachers and students were faced with very new and unexpected educational situations and systems (Bozkurt & Sharma, 2020; Ilhan, Kaba & Sin, 2021; Telli Yamamoto & Altun, 2020; UNESCO, 2020). All these unexpected and extraordinary conditions brought distance education technologies in general and online learning applications in particular to the fore at all levels from pre-school to higher education. As a result, online learning programs such as Adobe Connect, Microsoft Teams and Zoom and distance education systems were put into practice in university courses (Batmang et al., 2021; Paudel, 2021; Xhelili et al., 2021).

According to Thornton (2020), during the pandemic period, music educators around the world found creative solutions to continue their teaching remotely, while also demonstrating a sense of friendship by sharing their ideas with their colleagues mainly over the internet. For example, music teachers created videos, rubrics, accompaniments, games, lesson plans, songs, tracks, etc., and used social networking sites to share them to help other teachers teach their students. However, in a study commissioned by the Music Education Partnership Group (MEPG), "music teachers across Scotland did not feel adequately ready for online distance learning during the early months of the COVID-19 pandemic, both in formal and informal settings.

Moreover, despite the almost unanimous opinion that face-to-face teaching and its social aspect cannot be replaced with online teaching, students agreed that attending online music lessons with their peers helped them maintain their mental health during the lockdown period. Teachers, on the other hand, stated that there were certain student groups who joined online music education less and thus benefit less from it (Educational Institute of Scotland, 2020; Moscardini & Rae, 2020; Ververis & Apostolis, 2020). Because the 21st century is the age of technology and all countries around the world are trying to maximize their level of technology, it has become a necessity to use online distance education systems to overcome the problems that may interrupt education. In this context, questioning the readiness and competencies of teacher candidates and teachers for these new technologies has become an issue to be considered to benefit from contemporary technologies.

In music education, despite successful studies on technological tools, providing interactive communication (Kibici, 2018; Webster, 2002), teaching basic music skills through online interaction (Waldron, 2012; Ververis & Apostolis, 2020) developing computer-aided applications that enable the formation of a society that makes sharing knowledge as valuable as knowledge creation (Doguru, 2020, Kara, 2020) and the effect of technological tools on increasing the learning of art subjects and concepts (Brown & Dillon, 2012; Doğru, 2020; Kaleli, 2020a), the competence of teacher candidates or teachers in computer/technology and online learning has constantly been discussed since the late 1980s. Online learning, in which students use computer technologies to communicate with teachers and other students and to access learning materials (Bradley, 2021; Thompson & McDowell, 2019), is a teaching and learning process in which student and teacher are in different environments. According to Khan (2005), "institutional, management, technological, pedagogical, ethical, interface design, resource support and evaluation" are eight interrelated and systematic dimensions that provide an effective online learning environment. A systematic understanding of these factors helps teachers create effective learning environments.

Table 1. E-Learning Sub-Dimensions (Khan, 2005: 47)

E-LEARNING SUB-DIMENSIONS		
Institutional	**Pedagogical**	**Interface Design**
Administrative Affairs	Content Analysis	Page & Site Design
Academic Affairs	Audience Analysis	Content Design
Students Services	Goal Analysis	Navigation
Management	Design Approach	Accessibility
People, Process & Product	Instructional Strategies	Usability Testing
(P3) Continuum	Organization	**Resource Support**
Management Team	Blending Strategies	Online Support
Managing E-Learning Content	**Ethical**	Resources
Development	Social and Cultural Diversity	**Evaluation**
Managing E-Learning **Environment**	Bias & Political Issues	Evaluation of Content Development
Technological	Geographical Diversity	Process
Infrastructure Planning	Learner Diversity	Evaluation of E- Learning Environment
Hardware	Digital Divide	Evaluation of E- Learning
Software	Etiquette	Program & Institutional Levels
	Legal Issues	Evaluation of Students

Distance education is quite different from normal education in terms of the physical presence of the student or teacher (Hodges et al, 2020; Zawacki-Richter & Anderson, 2014). It is possible to see that distance education provides more flexibility for both educators and learners. However, higher discipline and planning are required to complete the teaching process of distance education more successfully. Students can easily choose the courses that fit their schedules, interests and needs thanks to the flexible planning provided by distance education. At the same time, students can determine the teaching methods suitable for them thanks to digital learning environments (Bolliger & Martin, 2018; Perraton, 2000).

Dammers (2009) observed that when it comes to instrumental music education, despite the successful results of its use in various other educational fields, teaching an instrument on the basis of online learning can only play a complementary role due to its synchronous nature. In fact, the same seems to be true in the case of synchronized online learning despite rapid technological progress. However, it is suggested that synchronized online learning in music education can be effective when combined with “traditional” face-to-face courses (Brändström et al., 2002; Heavner, 2011; Kaleli, 2021; Riley, 2009).

Online learning requires the use of the latest technology to improve the learning process and interactions between teachers and students. In addition, school culture and management approach that encourage students

and instructors to use e-learning is important. Online learning is supposed to reduce cost without reducing the quality of learning. Therefore, instructors are expected to be facilitators, collaborators, mentors, trainers, directors and study partners, providing more options and greater accountability for students' learning. In this context, instructors should be able to use pedagogical approaches and online teaching materials effectively to achieve their course objectives (Armstrong-Mensah et al., 2020; Bolliger & Martin, 2018; Tümen Akyıldız, 2020). Also, students and teachers, who are the most important stakeholders of music education, must be competent enough to fulfil the requirements of this system., it is important to identify pre-service music teachers' online competencies, skills and attitudes during the COVID-19 pandemic and the factors affecting them, and make the necessary arrangements to raise students' competencies (Kaleli, 2020a, 2020b; Koyuncuoğlu, 2021).

Researchers listed some of the challenges and barriers to online learning as the change in the roles and responsibilities of instructors (Zheng & Smaldino, 2003), the problem of competence in using technology (Doğru, 2020; Koyuncuoglu, 2021; Valentine, 2002; Volery, 2000), changes in the interaction with students and interpersonal relationships, and unethical behaviours of online learners (Muirhead, 2000; O'Quinn & Corry, 2002). Online learning activities break the boundaries of time, space and many such variables. It provides students with teacher-student and student-student interactions in an autonomous atmosphere, provides instant feedback on students' performance, and enables students to access information comfortably (Barnett, 2018; Kaur, 2020; Yıldız et al, 2004). Besides, the extent to which the benefits of online learning can be enjoyed depends on certain variables that affect the quality of online learning, one of which is readiness for online learning.

Borotis and Poulymenakou (2004) defined readiness for online learning as being mentally, emotionally and physically prepared for online learning experiences and actions. Readiness for online learning can be explained as having internal motivation in the online learning environment, using time effectively, ability to use both asynchronous tools such as e-portfolio, e-mail and live chat, and synchronous tools such as Zoom, Teams, Skype, taking responsibility, adapting to the online learning environment providing and self-learning-evaluation (Bernard, Brauer, Abrami, & Surkes 2004; Hung, Chou, Chen & Own, 2010; İlhan & Çetin, 2013; Smith, 2005)). According to Hung et al. (2010), in terms of readiness for online learning, teachers and students should have self-efficacy in computer and internet use, and strong self-learning habits, be effective in providing learner control and learning motivation, and finally, high self-efficacy in online communication. According to Hung et al. (2010), readiness for online learning includes ICT technologies, computer and internet self-efficacy (Tsai & Lin, 2004), online communication self-efficacy (Roper, 2007) as well as providing learner motivation and control (Wang & Beasley, 2002) and self-directed learning (Lin & Hsieh, 2001).

As Knowlton (2000) argues, in student-centred online education, teachers and students are a community of learners. The teacher acts as a coach, consultant and mentor so that students become active participants in learning. In the teacher-centred classroom, students are passive as just note-takers. In online student-centred education, on the other hand, while the teacher serves as the facilitator, students collaborate with each other to develop personal understanding of course content. In this context, it is important for learners to be ready for

online learning so that online learning environments can be better organized, students' online learning success can be supported, students can be provided with efficient online learning experiences, and teachers can guide students better.

It was aimed in the study to examine the readiness of music teachers for online learning during the COVID-19 process and in line with the purpose of the study, answers were sought to the following research questions:

- What is the level of music teachers' readiness for online learning?
- Does music teachers' readiness for online learning differ significantly according to their gender?
- Does music teachers' readiness for online learning differ significantly according to their professional seniority?
- Does music teachers' readiness for online learning differ significantly according to the type of school they work at?

Method

This research was carried out according to causal comparison design which aims to examine the subject studied by comparing at least two groups that differ in this regard. The subject and event studied in this research design emerge independently of the direction and manipulation of the researcher; that is, there is no intervention or control in determining the groups to be compared (Bryman, 2012). In this study, on the basis of the causal comparison model, the readiness of music teachers for online learning was examined by comparing them according to the variables of gender, professional seniority and type of school.

Study Group

The study group of this research consists of music teachers working in different high schools and secondary schools in the Central Anatolia Region of Turkey. The research participants consist of 203 music teachers working in the provinces of Konya, Karaman and Aksaray. The average age of the teachers is 36.7. While 40.5% of music teachers work at secondary schools, 59.5% work at high schools. The teachers were selected from private schools (49.7%) and public schools (50.3%) by easy sampling method. While 54.2% of the teachers are female, 45.8% are male. While 61.2% of the teachers are married, 25.5% are single and 13.4% are divorced. Professional seniority of the teachers are as follows: 0-6 years (21.67%), 7-13 years (33.3%), 14-19 years (25.12%) and 20 years or more (20.2%). The research scales were conducted on the participants between September 2020 and December 2020, when distance education applications were carried out in all schools in Turkey.

Data Gathering Tool

In this study, the “Online Learning Readiness Scale” developed by Hung, Chou, Chen, and Own (2010) and adapted into Turkish by İlhan and Çetin (2013) was used as a data gathering tool. The scale was intended to

show 5-point Likert type psychometric properties. Turkish construct validity had been tested with Exploratory and Confirmatory factor analyses on pre-service teachers by İlhan and Çetin (2013).

The confirmatory factor analysis results, which were conducted on a sample of 405 university students, showed that the scale consisted of 5 dimensions: "Computer and Internet Use Self-Efficacy", "Self-Learning", "Learner Control", "Learner Motivation" and "Online Communication Self-Efficacy" and a total of 18 items. Reliability analyses performed with the Cronbach Alpha method showed that the sub-dimensions of the scale had a coefficient ranging from .76 to .88. The findings obtained from the research on the psychometric properties (validity, reliability and item analysis) of the Online Learning Scale showed that the measurement tool is a valid and reliable tool for measuring the readiness of music teacher candidates for online learning.

Data Analysis

Research data were analysed in SPSS 25.0 program. Because the online learning readiness scores of the music teachers participating in the research showed a normal distribution, the Unrelated Sample t-Test and One-Way Analysis of Variance tests from parametric statistics were used in the study.

Results

Descriptive statistics and findings regarding the scores of music teachers in the Online Learning Readiness Scale are given in Table 2.

Table 2. Descriptive Results of Music Teachers' Scores in the Online Learning Readiness Scale

Readiness for Online Learning	N	Min.	Max.	Mean	Std. Deviation
Computer and Internet Use Self-Efficacy	203	1.00	5.00	3.71	1.34
Self-Learning	203	1.00	5.00	3.57	1.08
Learner Control	203	1.00	5.00	3.51	1.33
Learner Motivation	203	1.00	5.00	2.62	1.05
Online Communication Self-Efficacy	203	1.00	5.00	3.30	1.07
Total	203	1.3000	4.9500	3.34	0.75

The table shows the descriptive analysis of the scores that the music teachers got from the online learning readiness scale. It is seen in the mean scores that the participants' perception of efficacy was low in the dimension of "Learner Motivation" and medium in "Self-Learning", "Learner Control" and "total points", and their readiness was high in the dimension of "Computer and Internet Use Self-Efficacy". The results of the unrelated sample t-test, in which the scores of music teachers in the Online Learning Readiness Scale were compared according to gender, are given in Table 3.

Table 3. Comparison of Online Learning Readiness Scores of Music Teachers by Gender

Readiness for Online Learning	Gender	N	Mean	Std. Deviation	t	p
Computer and Internet Use Self-Efficacy	Female	117	3.54	1.32	-2.11	.036
	Male	86	3.94	1.35		
Self-Learning	Female	117	3.55	1.06	-0.24	0.81
	Male	86	3.59	1.11		
Learner Control	Female	117	3.38	1.22	-1.62	0.11
	Male	86	3.69	1.45		
Learner Motivation	Female	117	2.55	1.02	-1.23	0.22
	Male	86	2.73	1.08		
Online Communication Self-Efficacy	Female	117	3.17	0.97	-1.96	0.05
	Male	86	3.47	1.17		
Total	Female	117	3.24	0.71	-2.31	0.02
	Male	86	3.48	0.78		

Table 3 shows the results of the comparison of music teachers' scores of the online learning readiness scale by gender. In the independent sample t-test analysis, a significant difference was found in the scale's "Computer and Internet Use Self-Efficacy", "Online Communication Self-Efficacy" dimensions and total scores according to gender ($p<0.05$). Considering the averages of the groups, the mean scores of the male music teachers in the aforementioned dimensions were found to be significantly higher than the female music teachers. These findings show that male music teachers are more ready for online learning processes. The F test findings, in which the scores of music teachers in the Online Learning Readiness Scale were compared according to professional seniority, are given in Table 4.

Table 4. Comparison of Online Learning Readiness Scores of Music Teachers by Professional Seniority

Readiness for Online Learning	Professional Seniority	N	Mean	Std. Deviation	F	p
Computer and Internet Use Self-Efficacy	0-6 Years	44	4.18	0.83	3.954	.009
	7-13 Years	67	3.82	1.30		
	14-19 Years	51	3.50	1.56		
	20 Years or more	41	3.28	1.41		
	Total	203	3.71	1.34		
Self-Learning	0-6 Years	44	3.90	0.85	2.857	.038
	7-13 Years	67	3.61	0.98		
	14-19 Years	51	3.50	1.18		
	20 Years or more	41	3.24	1.22		
	Total	203	3.57	1.08		
Learner Control	0-6 Years	44	3.95	1.00	5.852	.001
	7-13 Years	67	3.77	1.24		
	14-19 Years	51	3.19	1.46		
	20 Years or more	41	3.01	1.38		

	Total	203	3.51	1.33		
Learner Motivation	0-6 Years	44	2.73	0.94	1.079	.359
	7-13 Years	67	2.70	1.08		
	14-19 Years	51	2.63	1.15		
	20 Years or more	41	2.37	0.97		
	Total	203	2.62	1.05		
Online Communication Self-Efficacy	0-6 Years	44	3.35	0.97	1.895	.132
	7-13 Years	67	3.51	1.13		
	14-19 Years	51	3.08	1.03		
	20 Years or more	41	3.16	1.08		
	Total	203	3.30	1.07		
Total	0-6 Years	44	3.62	0.45	6.869	.000
	7-13 Years	67	3.48	0.70		
	14-19 Years	51	3.18	0.79		
	20 Years or more	41	3.01	0.88		
	Total	203	3.34	0.75		

Table 4 shows that the mean scores of "Computer and Internet Use Self-Efficacy", "Self-Learning", "Learner Control" and "Readiness for E-Learning" display a statistically significant difference according to the professional seniority of the music teachers ($p<0.05$). According to participant opinions, e-learning readiness skills of music teachers differ significantly according to their professional seniority. According to the Tukey test analysis, the e-learning readiness skills of music teachers with a professional seniority of "0-6 years" are significantly higher than their colleagues with a professional seniority of "20 years or more". The findings of comparison of the music lesson teachers' scores in the Online Learning Readiness Scale according to the type of school they work are given in Table 5.

Table 5. Comparison of Online Learning Readiness Scores of Music Teachers According to School Types

Readiness for Online Learning	School Types	N	Mean	Std. Deviation	t	p
Computer and Internet Use Self-Efficacy	State School	103	3.48	1.38	-2.53	0.01
	Private School	100	3.95	1.27		
Self-Learning	State School	103	3.48	1.12	-1.22	0.22
	Private School	100	3.66	1.03		
Learner Control	State School	103	3.34	1.30	-1.88	0.06
	Private School	100	3.69	1.35		
Learner Motivation	State School	103	2.47	1.04	-2.21	0.03
	Private School	100	2.79	1.03		
Online Communication Self-Efficacy	State School	103	3.20	0.99	-1.38	0.17
	Private School	100	3.40	1.14		
Total	State School	103	3.19	0.74	-2.96	0.00
	Private School	100	3.50	0.73		

It is seen in Table 5 that the mean scores of online learning readiness show a statistically significant difference in “Computer and Internet Use Self-Efficacy”, “Learner Motivation”, “Learner Control” and the total according to school types ($p<0,05$). According to participant opinions, it was found that music teachers working at private schools had significantly higher e-learning readiness than their colleagues working at public schools.

Discussion

In this study, which examined the readiness levels of music teachers for online learning during the COVID-19 process, it was found that the participants’ perception of efficacy was low in the dimension of “Learner Motivation” and medium in “Self-Learning”, “Learner Control” and “total points”, and their readiness was high in the dimension of “Computer and Internet Use Self-Efficacy”. In this respect, it is seen that there are some problems in conducting music lessons online and being ready for it. According to Khan (2005), teaching and learning form the basis of teachers' preparation for the pedagogical and course process of e-learning. This dimension is related to content analysis, community analysis, target analysis, media analysis, design approach, institution and learning strategies.

Therefore, it is necessary that the purpose respond to the needs and expectations of learners by taking into account a number of criteria such as the target audience and characteristics of the target audience, current knowledge levels, previous learning experiences, needs and expectations regarding the educational process, learning styles, communication preferences. In this context, it is observed that teachers experience significant problems in designing an ecosystem with a strong pedagogical aspect by evaluating content, community, goal, environment analysis, teaching strategies and design dimensions in e-learning. Online learning processes require teachers to acquire new knowledge in the field, ICT knowledge and skills, and interactive professional activity methods. Thus, the development of these competencies in music teachers contributes to creating a strong music education system.

Another finding in the study arising from the comparison of music teachers' readiness for online learning according to their gender was that male music teachers were more ready for online learning processes in the “Computer and Internet Use Self-Efficacy”, “Online Communication Self-Efficacy” dimensions and the total of the scale. These findings are similar to the results of the studies of Chang et al. (2016), Çetin (2008), Doğru (2020), İpek and Acuner, (2011), Kaleli (2020b), Koyuncuoğlu (2021), Sieverding and Koch (2009); Tasner, Žveglic and Mencin (2017); Tekinarslan (2008), Vandercruysse et al., (2013: 927-50) and Yurdagül and Sırakaya (2013). According to Goffe and Scase (1992), differences in individuals according to gender, regarding occupations and technical activities in business life generally develop under the influence of cultural and developmental environment.

It has been observed that cultural and social perceptions force women to a passive and non-technology role in business life, and that women stay away from technological and innovation features as much as their male counterparts in many business lines. However, there are no gender differences in terms of internet and social

media use in daily life (Alsolamy, 2017; Pew Research Center, 2018). In fact, e-learning environment offers an absorbing student-centred learning space to trigger individuals' personal abilities and potentials. Especially, it was seen that men (Koyuncuoğlu 2021b) showed more entrepreneurial features, while women showed higher anxiety and shyness features in these new learning technologies.

In another finding of the study, significant differences were found in the e-learning readiness skills of music teachers according to their professional seniority during the COVID-19 process. In general, the "online learning readiness skills" of music teachers with a professional seniority of "0-6 years" were found to be significantly higher than their colleagues with a professional seniority of "20 years or more". These findings show similarities to the research findings of Esther and Marjon (2008), Guo, Dobson, and Petrina (2008). Esther and Marjon (2008) stated that teachers' innovation and technological entrepreneurship decrease with the insensitivity of years, and teachers with high professional seniority and experience have problems in adapting and using new teaching technologies, web-based and online learning technologies.

The last finding in this study is that the state of readiness for online learning differs according to the school type where the music teachers work. According to participant opinions, it was found that music teachers working at private schools had significantly higher online learning readiness than their colleagues working at state schools. These findings are similar to the research findings of Erdoğan (2005), Tej, Jindal, and Tej (2016). According to Erdoğan (2005), private schools have a very high level of infrastructure and in-service training on novel teaching technologies. In particular, the technological infrastructure and climate of the private school where music teachers work are important sources of technological readiness for teachers.

Conclusions and Suggestions

In this study, which examined the readiness of music teachers for online learning during the COVID-19 process, significant differences were found in terms of gender, professional seniority and the type of school they worked at. In general, there are problems in music teachers' readiness to learn. It was observed that the level of readiness for online learning is low, especially for music teachers who are female, have high professional seniority and work in state schools. This study has a potential to create a positive technological change on music education and online learning experts over time.

Based on the results of this study, there are important implications for the adaptation of music education and teachers to technological applications. First of all, in-service training programs should be organized to provide music teachers not only with professional knowledge, but also with techniques of applying the learned knowledge, professional behaviour, competence and skills in computer and instructional technologies. It is recommended that music lessons and teachers be supported on an innovative and technological basis in the process of gaining web-based learning skills. Studies that reflect the effect of music teachers' online learning competencies on the music teaching process can be conducted.

References

Almaiah, M. A., Al-Khasawneh, A. and Althunibat, A. (2020). Exploring the critical challenges and factors influencing the E-learning system usage during COVID-19 pandemic. *Education and Information Technologies*, *25*(1), 1-14.

Alsolamy, Fahd. (2017). *Social networking in higher education: academics' attitudes, uses, motivations and concerns*. Doctoral Thesis, Sheffield Hallam University.

Armstrong-Mensah E, Ramsey-White K, Yankey B and Self-Brown S (2020) COVID-19 and Distance Learning: Effects on Georgia State University School of Public Health Students. *Front. Public Health, 8*. 576227. doi: 10.3389/fpubh.2020.576227

Atilgan, D. & Tukel, Y. (2021). Social capital and satisfaction with life during the COVID-19 pandemic: A case study on coaches. *International Journal on Social and Education Sciences (IJonSES), 3*(2), 342-359. https://doi.org/10.46328/ijonses.185

Barnett, D.E. (2018). Online Adjunct Faculty: A Quantitative Examination of the Predictive Relationship between Leadership and Job Satisfaction. *International Journal of Research in Education and Science (IJRES), 4*(1), 226-236. DOI:10.21890/ijres.383159

Batmang, B., Sultan, M., Azis, A., & Gunawan, F. (2021). Perceptions of Pre-Service Teachers on Online Learning during the COVID-19 Pandemic. *International Journal of Education in Mathematics, Science, and Technology (IJEMST), 9*(3), 449-461. https://doi.org/10.46328/ijemst.1595

Bernard, R.M., Brauer, A., Abrami, P.C., & Surkes, M. (2004). The Development of a Questionnaire for Predicting Online Learning Achievement. *Distance Education, 25*(1), 31-47

Bolliger, D.U., Martin, F. (2018). Instructor and student perceptions of online student engagement strategies. *Distance Education, 39*(4), 568-583.

Borotis, S. & Poulymenakou, A.. (2004). *E-learning readiness components: Key issues to consider before adopting e-learning interventions.* Proceedings of World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education 2004. 1622-1629.

Bozkurt, A. & Sharma, R.C. (2020). Emergency remote teaching in a time of global crisis due to CoronaVirus pandemic. *Asian Journal of Distance Education*, 15(1), 1-9.

Bradley, V. M. (2021). Learning Management System (LMS) Use with Online Instruction. *International Journal of Technology in Education (IJTE), 4*(1), 68-92. https://doi.org/10.46328/ijte.36

Brown, A., & Dillon, S. (2012). Collaborative digital media performance with generative music systems. In G. MacPherson & G. Welch (Eds.), *The Oxford handbook of music education* (pp. 549–566). New York: Oxford University Press

Bryman, Alan (2012). *Social research methods (4th ed.)*. Oxford: Oxford University Press. ISBN 978-0-19-958805-3. OCLC 751832004.

Cakin, M., & Kulekci Akyavuz, E. (2021). Educational Adventure of Students in the COVID-19 Period in Turkey: Determination of Parents' Views. *International Journal on Social and Education Sciences (IJonSES), 3*(1), 109-125. https://doi.org/10.46328/ijonses.87

Çetin, B. (2008). Marmara Üniversitesi sınıf öğretmeni adaylarının bilgisayarla ilgili özyeterlik algılarının incelenmesi. *Dicle Üniversitesi Eğitim Fakültesi Dergisi, 11*, 101-114.

Chang, M., Evans, M. A., Kim, S., Norton, A., Deater-Deckard, K., & Samur, Y. (2016). The effects of an educational video game on mathematical engagement. *Education and Information Technologies, 21*(5), 1283-1297.

Educational Institute of Scotland. (2020). *Instrumental Music Teacher Survey – September 2020*. https://www.eis.org.uk/Content/images/IMT/IMT Sept 2020 Survey Report.pdf

Esther T. C. & Marjon F. (2008). *Motivation to become a teacher and its relationships with teaching self-efficacy, professional commitment and perceptions of the learning environment*. University of Groningen Landleven 1, 9747 AD Groningen, the Netherlands

Goffee, R., & Scase, R. (1992). Organizational change and the corporate career: The restructuring of managers' job aspirations. *Human Relations, 45*(4), 363-385.

Guo, R. X., Dobson, T., & Petrina, S. (2008). Digital natives, digital immigrants: An analysis of age and ICT competency in teacher education. *Journal of educational computing research, 38*(3), 235-254.

Hodges, C., Moore, S., Lockee, B., Trust, T. & Bond, A. (2020). The difference between emergency remote teaching and online learning, *Educause Review*, *27*, 1-11.

Hung, M.L., Chou, C., Chen, C.H., & Own, Z.Y. (2010). Learner Readiness for Online Learning: Scale Development and Student Perceptions. *Computers & Education, 55*, 1080- 1090.

Ilhan, G. O., Kaba, G., & Sin, M. (2021). Usage of Digital Comics in Distance Learning During COVID-19. *International Journal on Social and Education Sciences (IJonSES), 3*(1), 161-179. https://doi.org/10.46328/ijonses.106

İlhan, M. & Çetin, B. (2013). The validity and reliability study of the Turkish version of an online learning readiness scale. *Eğitim Teknolojisi Kuram ve Uygulama, 3*(2), 72-100

İpek, C., & Acuner, H. Y. (2011). Sınıf Öğretmeni Adaylarının Bilgisayar Öz-Yeterlik İnançları ve Eğitim Teknolojilerine Yönelik Tutumları. Ahi Evran Üniversitesi Eğitim Fakültesi Dergisi, 12 (2), 23-40.

Kaleli, Y. S. (2020a). The effect of computer-assisted instruction on piano education: An experimental study with pre-service music teachers. *International Journal of Technology in Education and Science (IJTES)*, *4*(3), 235-246.

Kaleli, Y. S. (2020b). Investigation of the Relationship between Pre-service Music Teachers' Attitudes towards Teaching Profession and their Self-efficacy Beliefs. *International Journal of Research in Education and Science (IJRES), 6*(4), 580-587.

Kara, S. (2020). Prospective Visual Arts Teachers' Innovation Skills and Attitudes towards Computer Assisted Instruction. *International Journal of Technology in Education and Science (IJTES), 4*(2), 98-107. https://doi.org/10.46328/ijtes.v4i2.60

Kaur, D. (2020). Post-Positivist Approach to Factors that Influence K-12 Teachers' Use of iPads and Chromebooks. *International Journal of Technology in Education and Science (IJTES), 4*(1), 26-36. https://doi.org/10.46328/ijtes.v4i1.30

Khan, B. H. (2005). *Managing E-learning: Design, Delivery, Implementation, and Evaluation*. USA: Idea Group Inc (IGI).

Knowlton, D. S. (2000). A theoretical framework for the online classroom: A defense and delineation of a student-centered pedagogy. *New Directions for Teaching and Learning, 84*, 5-14.

Koyuncuoglu, D. (2021). An investigation of potential leadership and innovation skills of university students. *International Journal of Education in Mathematics, Science, and Technology (IJEMST), 9*(1), 103-115. https://doi.org/10.46328/ijemst.1374

Koyuncuoğlu, Ö. (2021). An Investigation of Graduate Students' Technological Pedagogical and Content Knowledge (TPACK). *International Journal of Education in Mathematics, Science and Technology (IJEMST),* 9(3), 299-313.

Lin, B. ve Hsieh, C. T. (2001). Web-based teaching and learner control: a research review. *Computers & Education, 37*(4), 377–386.

Moscardini, L. & Rae, A. (2020). *We make music online: A report on online instrumental and vocal teaching during the COVID-19 lockdown*. Music Education Partnership Group. DOI: 10.13140/RG.2.2.20242.89289.

Muirhead, W. D. (2000). Online education in school [Electronic version]. *The International Journal of Educational Management, 14*(7), 315-324

O'Quinn, L. & Corry M. (2002, December 16). Factors that deter faculty from participating in distance education. *Online Journal of Distance Learning Administration, 5*(4), 1-10.

Paudel, P. (2021). Online Education: Benefits, Challenges and Strategies During and After COVID-19 in Higher Education. *International Journal on Studies in Education (IJonSE), 3*(2), 70-85.

PEW RESEARCH CENTER (2018). *Social Media and Technology Use in 2018*. http://www.pewinternet.org/2018/03/01/social-media-use-in-2018/

Roper, A. R. (2007). How students develop online learning skills. *Educause Quarterly, 30*(1), 62–64.

Saraç, Y. (2020). *Preparing a national roadmap for online higher education*. Univ World News Global Window On Higher Education, 2020.

Sieverding, M.&Koch, S.C. (2009). Self-Evaluation of computer competence: How gender matters. *Computers & Education, 52*(3), 696-701

Smith, P.J. (2005). Learning Preferences and Readiness for Online Learning. *An International Journal of Experimental Educational Psychology, 25*(1), 3-12.

Tašner, V., Žveglic, M. M.& Mencin, C. M. (2017). Gender in the teaching profession: university students' views of teaching as a career. *CEPS Journal, 7*(2), 47-69.

Tej, S, D., Jindal, D., & Tej, D. (2016). Being an educator in private vs. public school system: a comparative study on job contentment. *IRA International Journal of Education and Multidisciplinary Studie*, 3(3), 309-320.

Tekinarslan, E. (2008). Faculty Of Education Students'attitudes toward Internet And Implications For Online Learning. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi, 8*(1), 67–82

Telli Yamamoto, G, & Altun, D. (2020). The Coronavirus and the rising of online education. *J Univ Res., 3*(1),25-34. 10.26701/uad.711110

Thompson, V. L. & McDowell, Y. L. (2019). A case study comparing student experiences and success in an undergraduate course offered through online, blended, and face-to-face instruction. *International Journal of Education in Mathematics, Science and Technology (IJEMST), 7*(2), 116-136.

Thornton, L. (2020). Music Education at a distance. *Journal of Music Teacher Education, 29*(3), 3–6.

Tsai, C.-C. ve Lin, C.-C. (2004). Taiwanese adolescents' perceptions and attitudes regarding the Internet:Exploring gender differences. *Adolescence, 39*, 725–734.

Tümen Akyıldız, S. (2020). College Students' Views on the Pandemic Distance Education: A Focus Group Discussion. *International Journal of Technology in Education and Science (IJTES), 4*(4), 322-334.

UNESCO, (2020). *90 million students out of school due to COVID-19: UNESCO releases first global numbers and mobilizes response*. Retrieved on 9 April 2021, from https://en.unesco.org/news/290-million-students-out-school-due-COVID-19-unesco-releases-first-global-numbers-and-mobilizes

Valentine, D. (2002, October 9). Distance learning: Promises, problems, and possibilities. *Online Journal of Distance Learning Administration, 5*(3), 1-8.

Vandercruysse, S., Vandewaetere, M., Cornillie, F. & Clarebout, G. (2013). Competition and Students' Perceptions in A Game-Based Language Learning Environment. *Educational Technology Research and Development, 61*, 927–950.

Ververis, A. & Apostolis, A. (2020). *Online Music Education in the Era of COVID-19: Teaching Instruments in Public Music Secondary Schools of Greece During the 2020 Lockdown*. International Conference on Studies in Education and Social Sciences, İstanbul.

Volery, T. (2000). Critical success factors in online education. *The International Journal of Educational Management, 14*(5), 216-223.

Waldron, J. (2011). Conceptual frameworks, theoretical models, and the role of YouTube: Investigating informal music teaching and learning in online music community. *Journal of Music, Technology and Education, 4*(2-3), 189–200.,

Wang, L. ve Beasley, W. (2002). Effects of learner control and hypermedia preference on cyber-students' performance in a web-based learning environment. *Journal of Educational Multimedia and Hypermedia, 11*(1), 71–91.

Webster, P. (2002). Computer-based technology and music teaching and learning. In R.m Colwell & C. Richardson (Eds.), *The new handbook of research on music teaching and learning* (pp. 416–439). New York: Oxford University Press.

Xhelili, P., Ibrahimi, E., Rruci, E., & Sheme, K. (2021). Adaptation and Perception of Online Learning during COVID-19 Pandemic by Albanian University Students. *International Journal on Studies in Education (IJonSE), 3*(2), 103-111.

Yıldız, R., Sünbül, A.M., Koç, M. & Halis, İ. (2004). *Öğretim teknolojileri ve materyal geliştirme kitabı.* Ankara: Nobel-Atlas Yayınevi.

Yucesoy-Ozkan, S., Kaya, F., Gulboy, E., Altun, D. E., & Oncul, N. (2020). General and special education practices during the COVID-19 viral outbreak in Turkey. In I. Sahin & M. Shelley (Eds.), *Educational practices during the COVID-19 viral outbreak: International perspectives* (pp. 19–62). ISTES Organization.

Yükseköğretim Kurulu (YÖK) COVID-19 Bilgilendirme . Pandemi Günlerinde Türk Yükseköğretimi. 2020. https://COVID19.yok.gov.tr/Sayfalar-/HaberDuyuru-/pandemi-gunlerinde-turk-yuksekogretimi.aspx

Yurdugül, H. & Sırakaya, D. (2013). Çevrimiçi Öğrenme Hazırbulunuşluluk Ölçeği: Geçerlik ve Güvenirlik Çalışması. *Eğitim ve Bilim Dergisi 38*(169), 391-406.

Zawacki-Richter, O., & Anderson, T. (2014). *Online distance education: Towards a research agenda*. Edmonton, Canada: AU.

Zheng, L., & Smaldino, S. (2003). Key instructional design elements for distance education. *The Quarterly Review of Distance Education, 4*(2), 153-166.

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