

INVESTIGATING EDUCATION FACULTY STUDENTS' VIEWS ABOUT ASYNCHRONOUS DISTANCE EDUCATION PRACTICES DURING COVID-19 ISOLATION PERIOD

Abstract: In this study it has been aimed to evaluate the asynchronous distance education practices applied during the Covid-19 isolation period in an education faculty. Research sample was constituted of 1444 undergraduate students studying at an education faculty in a state university. Data have been collected with "Questionnaire for evaluation of distance learning applications". The obtained data were subjected to descriptive statistics and chi-square analysis. As a result of research, it was determined that undergraduate students were partially satisfied with asynchronous distance education and that there was a positive correlation with the satisfaction of having computer and internet. In the research it was seen that students considered it to be insufficient for distance learning to enable motivation and permanent learning. Besides, it was determined that students preferred face-to-face learning to distance learning and that after the isolation period they expected to proceed with face-to-face learning. Based on the results of the research, it was suggested that distance education should be carried out by blending synchronous and asynchronous application, increasing interaction and paying attention to the workload.

Keywords: Covid-19, asynchronous distance education, students' views.

Taner Altun, PhD

Full Professor
Department of Primary Education
Trabzon University
Trabzon
Contact:
E-mail: taltun@trabzon.edu.tr
ORCID: 0000-0001-9946-7257

Salih Akyıldız, PhD

Associate Professor
Department of Primary Education
Trabzon University
Trabzon
Contact:
E-mail: sakyildiz61@gmail.com
ORCID: 0000-0002-8569-7411

Ahmet Gülay

Research Assistant
Institute of Graduate Education
Trabzon University
Trabzon
Contact:
Email: ahmetgulay@trabzon.edu.tr
ORCID: 0000-0002-7700-0768

Caner Özdemir

Research Assistant
Institute of Graduate Education
Trabzon University
Trabzon
Contact:
Email: canerozdemir052@gmail.com
ORCID: 0000-0002-3511-0942

INTRODUCTION

Humans who have their place in communal life as a social being, live together with other people and have continuous interaction with them. This situation causes for people to share same physical environments, to benefit from tools and equipment which are shared more and to have more physical contact. As originating from interaction had among people who share the same environment and have various contacts with each other, various diseases can be seen in communities. By means of developments had in education, technology and health areas, diseases seen in communities are treated and it is avoided for them to be spread. However even though it is rare, developments experienced in the era lived do not always reveal same impact in the treatment of diseases and may not avoid their spreading. Epidemic diseases spreading of which can not be avoided are considered as pandemic.

Pandemic defines contagious, epidemic diseases that can affect very wide geographies and all people and cause deaths in animals or humans (Aslan, 2020). Covid-19 virus that was first seen in Wuhan, China at the end of 2019 turned into a pandemic, created a danger all over the world, prompted the administrations to take some measures and caused people to stay at home for a while. Education sector is one of the most affected by this pandemic (Telli Yamamoto and Altun, 2020). Covid-19 made it difficult to realize face-to-face education and put all education administrators in the world in a difficult situation (Özer, 2020). In this context, in order to reduce the spread of the virus, face-to-face education has been suspended almost all over the world and the learning style of more than 1.5 billion students has been changed (Erkut, 2020; OECD, 2020; Telli Yamamoto and Altun, 2020). In this respect, distance education has been introduced in terms of not completely interrupting education during the pandemic process, maintaining education and especially complying with social distance. So much so that even countries that did not establish or use the necessary infrastructure before had to switch to distance education. In fact, distance education has become the only option in most countries in this process, and these countries have aimed to use distance education more actively and make it compulsory due to the possibility of not

being able to start face-to-face education again (Telli Yamamoto & Altun, 2020). Thus, the way teaching is carried out, teacher-student interaction and communication has changed (Kırmızıgül, 2020).

Distance education, which dates back to the 19th century, is a teaching system where teachers and students do not have to be in the same environment, can be present in different environments, physically far from each other and where information technologies are used at the highest level (Adıyaman, 2002; Akdemir, 2011; Barış, 2015; İşman, 2011). In this respect, distance education is bringing teachers and students in different environments together with information technologies, interacting with learning with video and audio, and sharing content and material (Al and Madran, 2004; Ally, 2008; İşman, 2011; Simonson, Smaldino, Albright and Zvacek, 2009). In other words, distance education is an education system that removes the space and time limitation by using information communication technologies and multimedia applications and provides individuals with global communication and learning independently from these (Akdemir, 2011; Çelik and Perçin, 2020; Etlioğlu and Tekin, 2020; Gülbahar, 2009; İşman, 2011). In brief, distance education is seen as an alternative way in education in terms of learning environment, usage of educative and technical tools and materials (Akbaba, Kaymakçı, Bırbudak, & Kılcan, 2016). In this context, it sometimes supports formal education and sometimes becomes an education system on its own (Al & Madran, 2004). Geographical distances, disadvantaged groups and social imbalance have caused this education to become widespread (Kan & Fidan, 2016). Distance education is used as a basic teaching model especially in extraordinary situations such as the Covid-19 pandemic.

Distance education has many benefits for educational processes. The most important of these is that regardless of a specific place and time, students are enabled to use of resources and materials easily to the extent they want, teach lessons with new and different teaching methods, and report the effectiveness of students and teachers within the system (Al and Madran, 2004; Belcheir and Cucek, 2002; Gaebel, Kupriyanova, Morais and Colucci, 2014; Kırık, 2004; Kocatürk Kapucu and Uşun, 2020; Solak, Ütebay and Yalçın, 2020; Uzun, 2013). In this respect,

distance education provides education opportunities to more individuals of all ages, individuals with disabilities, who have limited educational opportunities or have difficulty in reaching this opportunity, and provides education according to individual pace (Adıyaman, 2002; Altıparmak, Kurt and Kapıdere, 2011; Çelik and Perçin, 2020; Kırık, 2004; Yenal, 2009). In addition, lessons can be watched and reinforced in distance education (Kan and Fidan, 2016). In addition, by establishing virtual classrooms and laboratories, the physical deficiencies of the education system can be overcome, and qualified teachers can be brought together with a large number of students (İşman, 2011). Thus, distance education ensures that education spreads throughout the society (Hızal, 1983), reaches all members of the society (Durnalı & Koşar, 2019), lifelong learning and equality of opportunity in education is achieved (Adıyaman, 2002; Yenal 2009). In addition, distance education is one of the most active and enriching learning environments (Miltiadou & Yu, 2000). It provides learners with rich resources and enjoyable lesson environments (Odabaş, 2004) and reinforces the subject visually and aurally (Kırık, 2004). According to Al and Madran (2004), distance education has advantages such as customization, student-centered management and low cost. According to Isman (2011), distance education allows students to work independently, individually and in cubic form. In this context, it makes students realize the responsibility of their learning and enables them to gain more (Odabaş, 2004; Öztaş & Kılıç, 2017).

Distance education has both advantages and disadvantages. The most frequently stated disadvantages are technical problems and the inability to open the system due to this, poor quality of teaching, not being suitable for applied subjects, and the scarcity of courses, lack of interaction, communication and internet (Altıparmak et al., 2011; Birişçi, 2013; Doğan & Tatık, 2015; Ilgaz, 2014; Kalelioğlu, Atan and Çetin, 2016; Kan ve Fidan, 2016; Karatepe, Küçükgençay and Peker, 2020; Kurtüncü and Kurt, 2020; Öztaş and Kılıç, 2017; Sümer, 2016). However, in distance education, students' participation in classes, their regular follow-up (Akbaba et al., 2016), and their concentration level are low (Kalelioğlu et al., 2016). On the other hand, Can (2020) stated that participation in live lessons is low and students use more written materials. In this respect, it can be stated that

students sometimes find distance education time consuming and boring (Powers & Mitchell, 1997). In addition, communication and sense of community are reduced in distance education, immediate support and feedback cannot be provided, and students cannot be supported by pre-learning on issues they are inadequate (Akbaba et al., 2016; Etlioğlu & Tekin, 2020). In this case, students are worried about using the process, cannot follow up regularly (Yıldız & Seferoğlu, 2020) and have difficulty in adapting to the process (Telli Yamamoto & Altun, 2020).

In order for distance education to reach its purpose and be effective, it must have some features. In this context, students should be provided with an easy-to-use system, access to computer and internet, enriched instructional design, teacher, peer and technical support (Beaudoin, Kurtz, & Eden, 2009; Concannon, Flynn, & Campbell, 2005; Güney, 2011; Kalelioğlu et al., 2016; Kan ve Fidan, 2016; Selim, 2007; Soong, Chan, Chua, and Loh, 2001; Venkatesh and Davis, 1996). In addition, students' interest in technology and their use skills should be increased (Telli Yamamoto & Altun, 2020) and their cognitive, affective, physical and social characteristics should be taken into account (Smith & McNelis, 1993). Erkut (2020) stated that distance education should be student-centered, triggering active learning, and include different techniques, practices, examples, and games. In addition, the interactive lesson environment should be increased, and lesson times should be shortened (Beaudoin et al., 2009; Kalelioğlu et al., 2016; Kan and Fidan, 2016). Thus, students should be able to participate more actively in the lessons in distance education (Karaman, Özen, Yıldırım, & Kaban, 2009). Hence, the instructors should be pedagogically and technically equipped (Kalelioğlu et al., 2016) and have sufficient knowledge and skills about information communication technologies (Sae-Khow, 2014). During distance education, especially teachers should fulfill various essential pre-requisites and they must be fully familiar with all distance education technology (Mallik & Mallik, 2017). In addition, pedagogical support should be provided to them for creating, using and presenting content for distance education (Telli Yamamoto & Altun, 2020). In addition, teachers and students should care about communication, work in a disciplined way and complete their studies on time (Kalelioğlu et al., 2016) and

should have self-confidence towards using relevant technology in this era (Demirdag, 2016). As a result of the rapid development of information and communication technologies, the increasing individualization of education, the increase in the number of individuals who want to receive education, and the differentiation of educational needs, distance education is demanded more (Kan & Fidan, 2016). As a result, distance education is spreading rapidly in higher education (Akdemir, 2011). Today, there is distance education research and training center in 120 universities in Turkey (YOK, 2020) and many universities benefit from distance learning (Steel and Rivet, 2020). In the Covid-19 pandemic, rapid decisions and measures were taken and distance education was introduced in most of the higher education institutions in Turkey (Telli Yamamoto & Altun, 2020). However, in the first plan, asynchronous teaching was used especially because synchronous application was more difficult in the transition to distance education (Telli Yamamoto & Altun, 2020). Considering the advantages and disadvantages of distance education, it is considered important to evaluate this application in higher education. Because, in order for distance education to be effective and to increase its quality, students' opinions about the process should be taken, the deficient aspects of the process should be determined and arrangements should be made regarding this (Sae-Khow, 2014; Uzun, 2013).

In this context, in this study, it was aimed to evaluate the asynchronous distance education applications in higher education during the Covid-19 isolation period. In this respect, it can be stated that this research will contribute to the literature and will be important in terms of revealing the effectiveness of the process, results and recommendations for improvement. In line with this purpose and importance of the research, the following questions were sought:

1. What are the perceptions of undergraduate students regarding asynchronous distance education applications?
2. What is the education preference of undergraduate students regarding the post-Covid-19 isolation period?

METHOD

In the study, it was aimed to evaluate the distance education applications carried out asynchronously in higher education during the Covid-19 isolation period. To achieve the purpose of the research; in this research structured in accordance with the quantitative research approach, singular survey model, which is one of the general survey models, was used. The general survey model, which is expressed as the surveys made on the sample taken from the entire universe or a part of the universe, is carried out to reach a general judgment and conclusion about a universe consisting of many elements. The singular survey model under the title of general surveys model is a model in which variables belonging to the unit and situation such as the event of interest, group are tried to be described separately. These descriptions may be limited to the past or present, or they can be developmental as a function of time. As a matter of fact, in the singular survey model, besides instantaneous situation determinations, process changes and developments can also be determined (Karasar, 2004). In this study, the views of undergraduate students studying at a faculty of education about the asynchronous distance education practices applied in the Covid-19 process were tried to be determined by survey method by reaching a large sample. In the study, the relationships of independent variables with student views were also examined.

SAMPLE

The universe of the research consists of 4214 undergraduate students studying at a faculty of education in a state university in the spring semester of the 2019-2020 academic year, in Turkey. The sample was determined from within this population by using simple random sample selection among the probabilistic sample choices. Since the sample is chosen randomly in this method, the probability of selecting each element is equal (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz and Demirel, 2016; Çepni, 2010; Ekiz, 2015). Thus, the sampling represents the universe in the best way, it allows generalizations about it, and therefore this method can be used primarily in survey studies (Büyüköztürk et al., 2016; Creswell, 2016). In this respect, the sample of the study consisted of undergraduate students who were randomly accessed from the universe and completed the "Evaluation of Distance Education Applications Questionnaire" online voluntarily. Sampling information is given in Table 1.

Table 1. Background Information of Participants

Variables	Categories	N	%
Gender	Female	1140	78,9
	Male	304	21,1
Subject Area	Primary Education	194	13,4
	Pre-School Education	183	12,6
	Science Education	123	8,5
	Mathematics Education	59	4,1
	English Teaching	81	5,6
	Special Education Needs	180	12,5
	Social Sciences	164	11,4
	Turkish Teaching	125	8,7
	Arts Education	179	12,4
	Music Education	68	4,7
	Psychological Guidance and Counselling	73	5,1
	Computer and Instructional Technologies Teaching	15	1,0
Grade Level	First year	235	16,3
	Second year	396	27,4
	Third year	431	29,8
	Fourth year	382	26,5
General Total		1444	100,0

As seen in Table 1, the sample consists of 1444 students studying in 12 different programs in the faculty of education. Considering the margin of error (.05), it can be stated that the sample size is quite appropriate considering that the sample should be at least 322 in the population of 2000 (Çingi, 1994). As can be seen from the table, there are participants from all grade levels and different branches. Most of these participants (78.9%) are women. In addition, most of the students have their own computer (67.7%) and internet connection (76.7%). Participants were found to be partially satisfied (48.3%) with the university's distance education application in general.

DATA COLLECTION AND ANALYSIS

The data of the study were collected through the "Evaluation of Distance Education Applications Survey" developed by the researchers. While developing this questionnaire, firstly the literature was comprehensively reviewed and questionnaires and scales evaluating distance education were reached. In line with the detailed examination of these data collection tools; Question items were created regarding the undergraduate students' views on the emergence of Covid-19, how they spent their time during the isolation period, their asynchronous distance education and post-isolation learning preferences. Subsequently, it was decided that the items should be in triple rating type as "agree, undecided, disagree". The questions prepared in this way were presented to the opinion of three experts and necessary arrangements were made in line with their feedback. In the final survey; there are a total of 30

items such as; 3 regarding the emergence of Covid-19, 7 on how time was spent during the isolation period, 14 on asynchronous distance learning applications and 6 on post-isolation learning preferences.

The research data were collected on the internet. In this regard, first of all, the final questionnaire was transferred to the internet and transformed into an electronic questionnaire. Then the questionnaire was shared with the students and the data of the research was obtained with voluntary participation. These data obtained were subjected to descriptive statistics and chi-square analysis. The data are presented with frequencies and percentages by using descriptive statistics the chi-square analysis was used to determine the relationship between the participants' having their own computer and internet and their distance education satisfaction. As a result of these analyzes, the data are presented under six headings and in tables.

FINDINGS

In this section, the views of education faculty students on the emergence of Covid-19, how they spend time at home during the isolation process, their assessment of asynchronous distance education, the relationship of distance learning satisfaction with having a computer and internet, and the results of the analysis conducted to determine their learning preferences after the isolation period and comments on them are included.

IMPACT OF ISOLATION PERIOD ON THE TIME SPENT BY EDUCATION FACULTY STUDENTS AT HOME

The data about the effects of the Covid-19 isolation period on the time spent by education faculty students at home is presented in Table 2.

Table 2. Impact of Isolation Period on the Time Spent by Education Faculty Students at Home

Actions	Increased		Non-changed		Decreased		N	%
	f	%	F	%	f	%		
Reading books	613	42,5	683	47,3	148	10,2	1444	100
Listening to music	759	52,6	505	35,0	180	12,4		
Watching TV	648	44,9	573	39,7	223	15,4		
Listening/watching news	1157	80,1	224	15,5	63	4,4		
Playing computer game	289	20,0	883	61,1	272	18,9		
Studying lessons	727	50,3	348	24,1	369	25,6		
Personal development works (Foreign language, computer)	536	37,1	678	47,0	230	15,9		

It is understood from Table 2 that the time spent by students for listening to music (52.6%), watching TV (44.9%) and listening / watching news (80.1%) during the Covid-19 isolation period has increased. Especially the increase in students' listening / watching the news can be explained by the fact that they follow the developments regarding the pandemic process. It can be stated that the increase in TV viewing also supports this situation. As seen in Table 3, students stated that they studied more during the process (50.3%). This situation can be explained by the asynchronous conduct of the distance education process and more time spent following the lecture notes of the students and carrying out their research assignments. In addition, it is seen in

Table 3 that the time spent by students for reading books (47.3%), playing computer games (61.1%) and self-improvement activities (47.0%) does not change. In summary, it can be stated that the time spent by students to follow the developments regarding the pandemic and to study due to distance education has increased, but there is not much change in the duration of other daily activities.

EVALUATIONS OF EDUCATION FACULTY STUDENTS RELATING WITH DISTANCE LEARNING

The evaluations of the education faculty students regarding the asynchronous distance education applications applied during the Covid-19 isolation period are presented in Table 3 below:

Table 3. Evaluations of Education Faculty Students on Distance Learning

Opinions	I agree		I am indecisive		I don't agree		N	%
	f	%	F	%	f	%		
Distance learning is more effective than face-to-face teaching.	120	8,3	167	11,6	1157	80,1	1444	100
Distance Education is not motivating enough to follow the lesson.	1097	76,0	177	12,2	170	11,8		
It is advantageous for the student as the distance education material can be viewed repeatedly.	796	55,1	274	19,0	374	25,9		
Since materials can be used repeatedly in distance education, the need for educators decreases in the medium term.	451	31,2	380	26,3	613	42,5		
While distance learning offers advantages, it cannot be a better alternative than face-to-face education.	1192	82,6	135	9,3	117	8,1		
The reliability of measurement and evaluation activities in distance education is low.	969	67,1	262	18,1	213	14,8		
Distance education makes the student more active in terms of its applications.	388	26,9	285	19,7	771	53,4		
Distance learning provides a good learning opportunity for students.	252	17,5	337	23,3	855	59,2		
Distance education ensures that learning is	173	12,0	303	21,0	968	67,0		

permanent.								
Success in distance education depends more on the student's efforts.	1018	70,5	218	15,1	208	14,4		
Distance education is more effective than traditional education.	140	9,7	263	18,2	1041	72,1		
If there was a distance education option in my department, I would prefer it.	161	11,1	149	10,3	1134	78,6		
Face-to-face interaction is required for the best training.	1207	83,6	145	10,0	92	6,4		
Distance education increases success.	130	9,0	292	20,2	1022	70,8		

It can be seen from the Table 3 above that most education faculty students do not find distance education conducted asynchronously more effective than face-to-face teaching. As a matter of fact, the students stated that distance education cannot be an alternative to face-to-face teaching (82.6%), they would not prefer it if there was a distance learning option (78.6%) and that face-to-face interaction was required for effective learning (83.6%). The participants stated that distance education could not provide motivation (76.0%), could not enable them to be active in the course (53.4%), could not provide effective learning opportunity (59.2%), permanence of learning (67.0%) and could not increase success (70.8%). they think. In addition, students think that the reliability of measurement and evaluation in

distance education is low (67.1%) and students should make more effort (70.5%). Participants think that distance education has the advantage of being able to watch the teaching material over and over again (55.1%). However, they stated that this situation would not decrease the need for teachers (42.5%). In summary, it can be stated that education faculty students find asynchronous distance education behind face-to-face education in many aspects.

LEARNING PREFERENCES OF EDUCATION FACULTY STUDENTS FOLLOWING ISOLATION PERIOD

The learning preferences of the education faculty students after the Covid-19 isolation period are presented in Table 4.

Table 4. Learning Preferences of Education Faculty Students Following Isolation Period

Opinions	I agree		I am indecisive		I don't agree		N	%
	f	%	f	%	f	%		
Distance education should not be used unless it is compulsory.	988	68,4	235	16,3	221	15,3	1444	100
The classical system should be essential, distance education should only be used as a supportive one.	1122	77,7	192	13,3	130	9,0		
All of the theoretical courses should be conducted with distance education, applications and exams should be done face to face.	265	18,3	287	19,9	892	61,8		
Theoretical lessons and exams should be done remotely and applications should be done face to face.	329	22,8	272	18,8	843	58,4		
Theoretical and possible practical courses and exams should be done remotely.	374	25,9	197	13,6	873	60,5		
Distance education should continue after the corona	215	14,9	177	12,3	1052	72,8		

When Table 4 is examined, it is understood that the education faculty students expect discontinuation of distance education (72.8%) after the Covid-19 isolation period. Students also consider distance processing of theoretical lessons or theoretical topics of lessons and exams in a negative way. Even, the participants stated that

distance education should not be used unless it is compulsory (68.4%). However, teacher candidates stated that distance education should only support face-to-face education (77.7%). In summary it can be stated that education faculty students consider face-to-face education as fundamental education form and they will prefer it to distance learning

and they consider distance learning as supportive to face-to-face education in required cases. In general, the participant student teachers were asked that whether they are satisfied with

asynchronous distance education given by the university overall. Responses given to this question are presented in the Table 5 below:

Table 5. Participants' Satisfaction About Distance Education Overall

Are you satisfied with the distance education application of the university?	Responses	n	%
Yes		250	17,3
Partially		698	48,3
No		496	34,4

As can be seen from Table 5 above that most of the students (48.8%) expressed that they were "partially" satisfied with asynchronous distance education service provided by the university. In addition, a considerable number of participants (34.4 %) responded that they were not satisfied at all while only 17.3% of participants were happy with the application of asynchronous education.

DISCUSSION, CONCLUSION AND SUGGESTIONS

In the study, it was revealed that undergraduate students stated that the time they spent to study during the isolation period increased and they put in more efforts for their lessons. It can be stated that this situation is related to the asynchronous execution of the distance education process and students spend more time following their lecture notes and doing their homework. As a matter of fact, the most negative aspect of distance education according to undergraduate students is that it takes more time than face-to-face learning (Belcheir & Cucek, 2002). Powers and Mitchell (1997) also found that students find distance learning time consuming. In this context, although it provides independence from time and makes the process practical, it can be stated that students spend more time than face-to-face teaching, especially due to the workload of asynchronous distance education. Hence, majority of undergraduate students think that distance education increases the workload (Keskin & Özer Kaya, 2020). In addition, it was determined in this study that undergraduate students watched more TV and news during their isolation period. Keskin and Özer Kaya (2020) also revealed that undergraduate students' watching time for television doubled during the pandemic process and that they followed the process related to the pandemic. Hayır Kanat and Görgülü Arı (2020) determined that television is the most used media tool to get news about the pandemic process. In

this context, the fact that students watch more TV and news during the isolation process can be explained by following the developments regarding the process.

In the research it was determined that students considered distance learning as being less effective than face-to-face teaching and would not prefer it if they had options, and they thought that this teaching could not be an alternative to face-to-face teaching. In some studies examining the effectiveness of distance education applied during the Covid-19 isolation period (Erkut, 2020; Karadağ & Yücel, 2020; Karatepe et al., 2020; Keskin & Özer Kaya, 2020), undergraduate students were not satisfied with this practice, their motivation for this application was low and it was found that they had negative attitudes in this respect. This situation can be explained by a sudden decision and an unprepared transition to distance education. Because effective distance education requires long preparation (Erkut, 2020). Hence, Covid-19 isolation period has shown that distance learning infrastructures of universities in Turkey are not prepared for extraordinary processes and effective learning and they need to be developed and that they have not met criteria specified by Higher Education Board for years (Can, 2020; Erkut, 2020; Karadağ and Yücel, 2020). It can be stated that undergraduate students are not satisfied with the distance education applied before the isolation period. For example, according to Barış (2015), undergraduate students' attitudes towards distance education are low. Baran, Kılıç, Bakar, and Çağıltay (2010) determined that very few undergraduate students want to study only by distance education. Dick, Case, and Burns (2001) found that undergraduate students were distance from distance education and saw this teaching as a second option. This

negative opinion of undergraduate students about distance education can also be associated with the asynchronous execution of the process. Because undergraduate students think that there should be more live lessons for qualified distance education (Duban & Şen, 2020; Karahan, Bozan, & Akçay, 2020; Uzun, 2013). As a matter of fact, it has been determined that students look more positively and adapt easily to distance education supported by synchronous applications (Drennan, Kennedy and Pisarski, 2005). In this context, it can be stated that distance education should be carried out in a blended manner using both synchronous and asynchronous methods in order to achieve its purpose and be effective (Bozkurt, 2020; Karahan et al., 2020; UNESCO, 2020).

In the study, it was determined that undergraduate students thought that effective learning would be through face-to-face interaction, that distance education was insufficient in this regard, that it could not provide effective and permanent learning, could not make themselves active and could not improve their success. In various studies (Akbaba et al, 2016; Birişçi, 2013; Kalelioğlu et al, 2016; Karatepe et al, 2020; Kan and Fidan, 2016; Keskin and Özer Kaya, 2020; Kürtüncü and Kurt, 2020; Sümer, 2016) deficiency of distance learning regarding face-to-face interaction, discussion of students with their teachers and peers were emphasized. In this context, for effective distance education, the learning environment should be improved, more interaction, support and feedback should be provided (Beaudoin et al., 2009; Kalelioğlu et al., 2016; Yıldız and Seferoğlu, 2020). Expectation of undergraduate students is also in this direction (Karahan et al., 2020; Uzun, 2013). In this respect, this expectation of students should be taken into account in the distance education process. Because this situation can also affect students' motivation. As a matter of fact, it was determined in this study that distance education could not provide the motivation of undergraduate students. Karatepe et al. (2020) also revealed that prospective teachers' motivation for distance learning courses is low. In addition, Kalelioğlu et al. (2016) found that students had difficulty in concentrating and distracted in distance education. It can be stated that the fact that students find distance education insufficient and that this teaching is mostly conducted asynchronously has an effect on this situation.

As a result of the research, it was determined that undergraduate students found the reliability of measurement and evaluation in distance education low. Kürüncü and Kurt (2020) also found that almost all undergraduate students do not trust exams in distance education. In addition, in this study, it was determined that undergraduate students would not prefer to take the exams remotely. Solak et al. (2020) determined that associate degree students would prefer face-to-face exams to distance exams. It can be stated that the way the exams are conducted and the controllability of the exams in distance education are effective in the students' thinking in this way. As a matter of fact, it has been determined that students are generally not satisfied with the way distance education is conducted. The students were satisfied that only the learning material of distance education could be watched repeatedly. Kan and Fidan (2016) also drew attention to this situation and stated that the lessons can be watched and reinforced in distance education. In this context, it can be stated that repeatability provides convenience for students and is the preferable feature of distance education.

In the study, it was determined that undergraduate students do not look positively towards distance education after the isolation period and they want to continue with face-to-face teaching. Perhaps in higher education students need more time for web-based instruction in order to develop self-regulated learning skills (Uysal & Gündoğdu, 2019). In addition, it has been determined that undergraduate students think that distance education should not be used unless it is compulsory. Students think this way for both theoretical and applied courses. This result of the research supports the literature. As a matter of fact, Karatepe et al. (2020) determined that teacher candidates do not think distance education will be the main education of the future and are not willing to use this teaching in the future. However, it was determined that undergraduate students would prefer face-to-face education to distance education (Kalelioğlu et al., 2016), they consider distance education as a second option (Dick et al., 2001), and very few of them want to study with this education (Baran et al., 2010). Even undergraduate students expect an accelerated repetition of applied courses after the isolation period. (Kürtüncü and Kurt, 2020). In the research, it was determined that undergraduate students see distance education as a supporter of face-to-face

teaching. Orhan (2008) also determined that most of the students want distance education to be conducted together with face-to-face education. Because distance education is not a competitor of face-to-face education but a supporter of it (Al & Madran, 2004). In this respect, it can be stated that distance education is seen by undergraduate students as a system that will support face-to-face education and be used in compulsory situations. In line with these results of the research, the recommendations can be made as follows:

- Possibly, more synchronous applications and interactive environments in distance education should be provided.
- Care should be taken not to increase the workload of students in distance education applications.
- The reliability of measurement and evaluation activities in distance education should be increased.
- By contacting the relevant institutions, students can be supported in providing computers and internet.
- Research can be conducted in which synchronous distance education applications are evaluated. Thus, it can be compared with this and different research results and more convincing evaluations can be made regarding the application of distance education.

REFERENCES

- Adıyaman, Zehra. "Uzaktan eğitim yoluyla yabancı dil öğretimi". *The Turkish Online Journal of Educational Technology-TOJET*, 1(1) (2002): 92-97.
- Akbaba, Bülent, Kaymakçı, Selahattin, Birbudak, Togay Seçkin and Kılcan, Bahadır. "Üniversite öğrencilerinin uzaktan eğitimle Atatürk ilkeleri ve inkılap tarihi öğretimine yönelik görüşleri". *Kuramsal Eğitimbilim Dergisi*, 9 (2) (2016): 285-309.
- Akdemir, Ömür. "Yükseköğretimimizde uzaktan eğitim". *Yükseköğretim ve Bilim Dergisi*, 1 (2) (2011): 69-71.
- Al, Umut and Madran, Orçun. "Web tabanlı uzaktan eğitim sistemleri: Sahip olması gereken özellikler ve standartlar". *Bilgi Dünyası*, 5 (2) (2004): 259-271.
- Ally, Mohammad. "Foundations of educational theory for online learning. Anderson T. (Ed.)", *The theory and practice* içinde (2nd ed.) (ss. 15-44). Edmonton, Canada: Athabasca University Press (2008).
- Altıparmak, Mahinur, Kurt, İnci Dürdane and Kapıdere, Metin. "E-öğrenme ve uzaktan eğitimde açık kaynak kodlu öğrenme yönetim sistemleri." XI. *Akademik Bilişim Konferansı*, Şubat 2011, Şanlıurfa.
- Aslan, Recep. "Tarihten günümüze epidemiler, pandemiler ve covid-19". *Göller Bölgesi Aylık Ekonomi ve Kültür Dergisi*, 8 (85) (2020): 35-41.
- Baran, Bahar, Kılıç, Eylem, Bakar Çörez, Ayşegül and Çağıltay, Kürşat. "Turkish university students' technology use profiles and their thoughts about distance education". *TOJET: Turkish Online Journal of Educational Technology*, 9 (1) (2010): 235-242.
- Barış, Mehmet Fatih. "Üniversite öğrencilerinin uzaktan öğretime yönelik tutumlarının incelenmesi: Namık Kemal Üniversitesi örneği". *Sakarya University Journal of Education*, 5 (2) (2015): 36-46.
- Belcheir, Marcia J. and Cucek, Mira. "Faculty perceptions of teaching distance education courses". *Research Report*. Boise State University (2002).
- Beaudoin, Michael. F., Kurtz, Gila and Eden, Sigal. "Experiences and opinions of e-learners: What works, what are the challenges, and what competencies ensure successful online learning". *Interdisciplinary Journal of E-Learning and Learning Objects*, 5 (2009): 275-289.
- Birişçi, Salih. "Video konferans tabanlı uzaktan eğitime ilişkin öğrenci tutumları ve görüşleri". *Journal of Instructional Technologies & Teacher Education*, 2 (1) (2013): 24-40.
- Bozkurt, Aras. "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) (2020): 112-142.
- Büyüköztürk, Şener, Kılıç Çakmak, Ebru, Akgün, Özcan Erkan, Karadeniz, Şirin and Demirel, Funda. "*Bilimsel Araştırma Yöntemleri* (20. baskı)". Ankara: Pegem Akademi Yayıncılık (2016).
- Can, Ertuğ. "Coronavirüs (Covid-19) pandemisi ve pedagojik yansımaları: Türkiye'de açık ve uzaktan eğitim uygulamaları". *Açıköğretim Uygulamaları ve Araştırmaları Dergisi*, 6 (2) (2020): 11-53.
- Concannon, Fiona., Flynn, Antoinette & Campbell, Mark. "What campus-based students think about the quality and benefits of e-learning". *British Journal of Educational Technology*, 36 (3) (2005): 501-512.
- Creswell, John W. "*Nitel Araştırma Yöntemleri* (Çev. Ed. S. B. Demir)". Ankara: Siyasal Kitabevi (2016).
- Çelik, Pelin and Perçin, Selçuk. "E-hizmet kalitesi ölçümü: Uzaktan eğitim hizmeti veren kamu üniversiteleri örneği". *Uluslararası İktisadi ve İdari İncelemeler Dergisi*, (2020): 77-98.
- Çepni, Salih. "*Araştırma ve Proje Çalışmalarına Giriş* (5. baskı)". Trabzon: Celepler Matbaacılık (2010).
- Çıngı, Hülya. "*Örnekleme kuramı*". Ankara: Hacettepe Üniversitesi Basımevi (1994).
- Demirdag, Seyithan. "Examining the computer attitudes and internet attitudes of substitute teachers: Self-confidence towards ICT." *Psycho-Educational Research Reviews* (2016): 89-100.
- Dick, Geoffrey N., Case, Thomas L. & Burns, O. Maxie. "Adopting distance education what do the students think? Proceeding of The International Academy for Informational Management (IAIM)" *Annual Conferance: International conference on Informatics Education & Research (ICIER)*, 14-16 December (2001), New Orleans, LA.
- Doğan, Selçuk and Tatık, Ramazan Şamil. "Marmara Üniversitesi'ndeki uzaktan eğitim uygulamasının öğrenci görüşleriyle değerlendirilmesi". *Route Educational and Social Science Journal*, 2 (1) (2015): 247-261.

- Drennan, Judy, Kennedy, Jessica and Pisarski, Anne. "Factors affecting student attitudes toward flexible online learning in management education" *The Journal of Educational Research*, 98 (6) (2005): 331-338.
- Duban, Nil and Şen, Fatma Gül. "Sınıf öğretmeni adaylarının Covid-19 pandemi sürecine ilişkin görüşleri". *Turkish Studies*, 15 (4) (2020): 357-376.
- Durnalı, Mehmet and Koşar, Didem. "Bir uzaktan eğitim merkezinin örgütsel amaçlarının analizi: Bir devlet üniversitesi örneği". *Balıkesir Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 22 (42) (2019): 85-109.
- Ekiz, Durmuş. "Bilimsel Araştırma Yöntemleri (4. baskı)". Ankara: Anı Yayıncılık (2015).
- Erkut, Erhan. "Covid-19 sonrası yükseköğretim". *Yükseköğretim Dergisi*, (2020): 1-9.
- Etioglu, Mehmet and Tekin, Mahmut. "Elektronik öğrenmede öğrenci tutum ve akademik başarı arasındaki ilişkide öğrenci merak ve kaygısının aracılık rolü". *Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 43 (2020): 34-48.
- Gaebel, Michael, Kupriyanova, Veronica, Morais, Rita and Colucci, Elizabeth. "E-Learning in european higher education institutions: Results of a mapping survey conducted in october-december 2013". *European University Association* (2014).
- Gülbahar, Yasemin. "E-öğrenme". Ankara: Pegem Akademi Yayıncılık (2009).
- Güney, Zafer. "E-öğrenme ve etkileşimli ortam tasarımı. G. T. Yamamoto, U. Demiray ve M. Kesim (Ed.)", *Türkiye'de e-öğrenme gelişmeler ve uygulamalar içinde* (ss. 40-64). Ankara: Efil (2011).
- Hayır Kanat, Meryem and Görgülü Arı, Aslı. "Covid-19 pandemisinin takip edildiği medya kaynaklarının ve güvenli bulunma düzeylerinin demografik değişkenler açısından incelenmesi". *Ulakbilge*, 48 (2020): 527-546.
- Hızal, Alişan. "Uzaktan Eğitim Süreçleri ve Yazılı Gereçler". Ankara: Ankara Üniversitesi Eğitim Bilimleri Fakültesi Yayınları (1983).
- İlgaz, Hale. "Uzaktan eğitim öğrencilerinin eşzamanlı öğrenme uygulamalarında karşılaştıkları sorunlar ve çözüm önerileri". *Eğitim Bilimleri ve Uygulama*, 13 (26) (2014): 187-204.
- İşman, Aytekin. "Uzaktan Eğitim (Geliştirilmiş 4. baskı)". Ankara: Pegem Akademi Yayıncılık (2011).
- Kalelioğlu, Filiz, Atan, Arda and Çetin, Çağrı. "Sanal sınıf ortamında öğretmen ve öğrenen deneyimleri". *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, 12 (2) (2016): 555-568.
- Karadağ, Engin and Yücel, Cemil. "Yeni tip koronavirüs pandemisi döneminde üniversitelerde uzaktan eğitim: Lisans öğrencileri kapsamında bir değerlendirme çalışması". *Yükseköğretim Dergisi*, (2020): 1-12.
- Karahan, Engin, Bozan, Mehmet Arif and Akçay, Ahmet Oğuz. "Sınıf öğretmenliği lisans öğrencilerinin pandemi sürecindeki çevrim içi öğrenme deneyimlerinin incelenmesi". *Turkish Studies*, 15 (4) (2020): 201-214.
- Karaman, Selçuk, Özen, Üstün, Yıldırım, Serkan, and Kaban, Abdullatif. "Açık kaynak kodlu öğretim yönetim sistemi üzerinden internet destekli (harmanlanmış) öğrenim deneyimi". *XI. Akademik Bilişim Konferansı*, Şubat 2009, Şanlıurfa.
- Karasar, Niyazi. "Bilimsel Araştırma Yöntemi". Ankara: Nobel Yayın Dağıtım. (2004).
- Karatepe, Fadimana, Küçükgençay, Naci and Peker, Bilge. "Öğretmen adayları senkron uzaktan eğitime nasıl bakıyor? Bir anket çalışması". *Uluslararası Sosyal ve Beşeri Bilimler Araştırma Dergisi*, 7 (53) (2020): 1262-1274.
- Kan, Ayşe Ülkü and Fidan, Emine Kübra. "Türk Dili dersinin uzaktan eğitimle yürütülmesine ilişkin öğrenci algıları". *Turkish Journal of Educational Studies*, 3 (2) (2016): 23-45.
- Keskin, Merve and Özer Kaya, Derya. "Covid-19 sürecinde öğrencilerin web tabanlı uzaktan eğitime yönelik geri bildirimlerinin değerlendirilmesi". *İzmir Katip Çelebi Üniversitesi Sağlık Bilimleri Fakültesi Dergisi*, 5 (2) (2020): 59-67.
- Kırık, Ali Murat. "Uzaktan eğitimin tarihsel gelişimi ve Türkiye'deki durumu". *Marmara İletişim Dergisi*, 21 (2004): 73-94.
- Kırmızıgül, Hafize Gamze. "Covid-19 salgını ve beraberinde getirdiği eğitim süreci". *Avrasya Sosyal ve Ekonomi Araştırmaları Dergisi*, 7 (5) (2020): 283-289.
- Kocatürk Kapucu, Nurhayat and Uşun, Salih. "Üniversitelerde ortak zorunlu derslerin öğretiminde uzaktan eğitim uygulamaları". *Açıköğretim Uygulamaları ve Araştırmaları Dergisi*, 6 (1) (2020): 8-27.
- Kürtüncü, Meltem and Kurt, Aylin. "Covid-19 pandemisi döneminde hemşirelik öğrencilerinin uzaktan eğitim konusunda yaşadıkları sorunlar". *Avrasya Sosyal Ekonomi ve Araştırmaları Dergisi*, 7 (5) (2020): 66-77.
- Mallik Arvind and Mallik, Lakshmi. "Review of education technology in digital age: classroom learning for future and beyond". *International Journal of Psycho-Educational Sciences*, 6 (3) (2017): 80-93.
- Miltiadou, Marios and Yu, Chong Ho. "Validation of the online technologies self-efficacy scale (OTSES)". *ERIC* (2000).
- Odabaş, Hüseyin. "İnternet tabanlı uzaktan öğrenim modelinin bilgi hizmetlerine yönelik yüksek öğretim programlarında kullanımı". *Kütüphaneciliğin Destanı Uluslararası Sempozyumu*, Ekim 2004. Ankara.
- OECD. "A framework to guide an education response to the COVID-19 Pandemic of 2020". Paris: OECD Publishing (2020).
- Orhan, Feza. "Redesigning a course for blended learning environment". *Turkish Online Journal of Distance Education*, 9 (1) (2008): 54-66.
- Özer, Mahmut. "Educational policy actions by the ministry of national education in the times of COVID-19". *Kastamonu Education Journal*, 28 (3) (2020): 1124-1129.
- Öztaş, Sezai and Kılıç, Bülent. "Atatürk İlkeleri ve İnkılap Tarihi Dersi'nin uzaktan eğitim şeklinde verilmesinin üniversite öğrencilerinin görüşleri açısından değerlendirilmesi (Kırklareli Üniversitesi örneği)". *Turkish History Education Journal*, 6 (2) (2017): 268-293.
- Powers, Susan M. and Mitchell, Jennie. "Student perceptions and performance in a virtual classroom environment". *ERIC* (1997).
- Sae-Khow, Jirasak. "Developing of indicators of an e-learning benchmarking model for higher education institutions". *TOJET: The Turkish Online Journal of Educational Technology*, 13 (2) (2014): 35-43.

- Selim, Hassan M. "Critical success factors for e-learning acceptance: Confirmatory factor models". *Computers & Education*, 49 (2) (2007): 396-413. Simonson, Michael, Smaldino, Sharon, Albright, Michael and Zvacek, Susan. *Teaching and Learning at a Distance: Foundations of Distance Education* (4th edition). Boston: Prentice Hall (2009).
- Smith, Dennie L and McNelis, Mary J. "Distance education: Graduate student attitudes and academic performance". *ERIC* (1993).
- Solak, Halil İbrahim, Ütebay, Gülin and Yalçın, Bilal. "Uzaktan eğitim öğrencilerinin basılı ve dijital ortamdaki sınav başarılarının karşılaştırılması". *Açıköğretim Uygulamaları ve Araştırmaları Dergisi*, 6 (1) (2020): 41-52.
- Soong, Benson, Chan, Hock Chuan, Chua, Boon Chai & Loh, Koah Fong. "Critical success factors for on-line course resources". *Computers & Education*, 36 (2) (2001): 101-120.
- Sümer, Murat. "Sanal derslere ilişkin öğrenci görüşlerinin incelenmesi". *Uşak Üniversitesi Sosyal Bilimler Dergisi*, 9 (27) (2016): 181-200.
- Telli Yamamoto, Gonca and Altun, Deniz. "Coronavirüs ve çevrimiçi (online) eğitimin önlenemeyen yükselişi". *Üniversite Araştırmaları Dergisi*, 3 (1) (2020): 25-34.
- UNESCO. "COVID-19:10 Recommendations to plan distance learning solutions". Retrieved from <https://en.unesco.org/news/covid-19-10-recommendations-plan-distance-learning-solutions> (2020).
- Uysal, Selami, and Gündoğdu, Kerim. "Predictors of Self-Regulated Learning Skills of Computer Education and Instructional Technology (CEIT) Students." *International Journal of Psycho-Educational Sciences* 8 (3) (2019): 29-40.
- Uzun, Adem. "BÖTE öğretmen adaylarının internet destekli öğrenme ortamına ilişkin görüşleri". *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 28 (3) (2013): 400-416.
- Venkatesh, Viswanath and Davis, Fred. D. "A model of the antecedents of perceived ease of use: *Development and test*". *Decision Sciences*, 27 (3) (1996): 451-481.
- Yenal, Ayşe Çiğdem. "Uzaktan eğitim" Unpublished Master Thesis. University of Yeditepe, Social Sciences Institute (2009).
- Yıldız, Esma and Seferoğlu, Süleyman Sadi. "Uzaktan eğitim öğrencilerinin çevrim içi teknolojilere yönelik öz yeterlik algılarının incelenmesi". *Celal Bayar Üniversitesi Sosyal Bilimler Dergisi*, 18 (1) (2020): 33-46.