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ABSTRACT

This article presents a study conducted with the purpose of identifying the views of university students regarding the concept of digital education and the changing perception of education during the COVID-19 pandemic period, as well as the positive and negative aspects of this new understanding of education. Discovering the positive and negative impacts of the new learning perception caused by the digital education process on the students, and contributing to the future process in the context of the results constitute the primary purpose of this student-focused study. The case study method, which is one of the qualitative research techniques, has been adopted while conducting this study. Data have been collected digitally through a structured interview form prepared by the researchers, and the purposeful sampling technique was used to choose the participant students. In the light of the data collected, it has been concluded that the participants have been negatively affected by the digital education processes in general; and when comparing digital education to face-to-face education, it has been determined that the majority of them preferred face-to-face education to distance education in terms of different educational outcomes. With regard to students' negative views on digital education, the reasons such as not being in the university environment physically, not being able to access the university's digital education resources due to physical and/or economic factors, psychological (feeling of inadequacy) and demographic factors come to the fore.

Keywords: Digital Education, Distance Education, Pandemic, Higher Education

INTRODUCTION

The Coronavirus disease-2019 (COVID-2019) first emerged in China in December 2019 and spread rapidly all over the world in a very short time. COVID-19 has dramatically changed the way we communicate, interact, entertain, socialize, and our views on diseases and education.

In 2020, the World Health Organization (WHO) declared COVID-19 as a global pandemic. Education is one of the particular fields that has been affected, changed, and transformed by this pandemic.

The first case in Turkey was seen in March 2020, and as of the first half of March 2020, Northern Cyprus began to witness coronavirus cases, which caused the closure of public areas, schools, lockdowns, and curfews. The COVID-19 pandemic not only significantly affected social life but also the educational system. Since the closure of schools interrupted face-to-face education, many higher education institutions decided to continue education digitally.

In the most general sense, education is "the process of educating people for certain purposes" (Fidan, 1996; 4). Distance education or digital education can be considered as one of the education systems that can be implemented simultaneously and asynchronously. In general, distance education is defined as a teaching method based on the active use of information technologies for teaching and facilitating learning, since instructors and students can be in different times and places (Valentine, 2002). Digital education, which is delivered online through screens and audio systems, is also described as distant education carried out as a more independent form of education, in which the learner and the teacher are distant from each other during a considerable part of the teaching and learning process, and materials and documents suitable for the course content are frequently used (Uşun, 2006).

Taking into account both definitions, it is obvious that there is not a single place where education is delivered and received, and the materials as well as the devices that are used for connection are different. Provided that technological infrastructures required for digital education are appropriate, it is understood that the locations or distances between the teachers and learners do not cause any problems.

Distance education and information technologies have been actively used for the last twenty years, and they have affected and changed all cultural values of humanity due to the rapidly growing online and offline technologies that are embraced by the society (Bayrak, Aydemir, and Karaman, 2017). These technologies have helped transmit and convey educational content digitally by making information access and distribution available to a large part of the world's population, especially during the pandemic period (Fidalgo, Thormann, Kulyk, & Lencastre, 2020).

When the development of the distance education model is examined, the year 2000 can be considered as the time at which the distance education gained the most momentum. It can be said that the development processes of education and all other sectors and platforms occurred very rapidly after 2000; however, as a result of COVID-19, which emerged at the end of 2019, distance education continued to develop with great speed.

There are different types of distance learning and different implementation methods, and among these, online learning types have come to the forefront as the new normal that are used frequently in education. Within the frame of distance education, courses can be delivered synchronously (at the same time) and asynchronously (not occurring simultaneously). Synchronous courses are real time courses in which teachers meet their students at a predetermined time (usually online) and deliver the classes live (Fidalgo et al., 2020). During this process, in order to provide the opportunity for in-class interaction, discussions, instant questioning and explanation for incomprehensible topics, a more active environment similar to the face-to-face education setting is tried to be created for the teacher and learners. On the other hand, asynchronous learning is a type of distance education in which instructors and students do not meet online to work simultaneously at a predetermined time. Asynchronous education allows students to access the course content such as presentations, pre-recorded videos, audio recordings, etc. over the internet whenever they want or need it. Participants mainly communicate through e-mail and online forums, and the process is generally moderated by the instructors (Watts, 2016).

In some comparative studies, certain advantages and disadvantages in terms of evaluating and implementing distance education have been highlighted. In their study conducted during the SARS outbreak, (Chan, So, Wong, Lee, & Tiwari, 2007) concluded that distance education had an effective role in easing people's anxieties and increasing their knowledge with the use of distance communication methods.

Other advantages of distance education can be listed as follows: distance education proves flexibility, although this varies according to the way the course is delivered; many courses provide learners with the opportunity to work and learn at their own pace without being dependent on time and space; distance learning also helps students and instructors save money and time, and therefore, it is cost-efficient. Reducing students' motivation due to the lack of face-to-face interaction and online distraction, and the social isolation experienced eventually, difficulty in receiving instant feedback, the constant need for technology, and issues related to accreditation are some of the disadvantageous points of distance education (De Paepe, Z, 2018; Gewin, 2020; Horspol and Lange, 2012; Lei and Gupta, 2010; Venter, 2003; Zuhairi, Wahyono and Suratinah, 2006).

Although distance education provides some advantages, not all students are successful in online classes due to specific factors. When compared with face-to-face education, failure rates in distance education courses are 10 to 20 percent higher than rates achieved in face-to-face courses.

METHOD

Case study, which is one of the qualitative research methods, has been utilized in this study. Data were collected through a structured interview form prepared by the researchers. While preparing the questionnaire, necessary corrections were made by taking the opinions of two academicians who are experts in their fields. Research data were collected through digital platforms. The study group of the research consisted of 23 students from the Department of Radio, Television and Cinema of the Near East University Faculty of Communication. Participants were determined using the purposive sampling technique. The content analysis method was used for interpretation of the data. The data obtained through content analysis have been coded and classified, and the same subjects were gathered under similar themes. Participant opinions are given in quotation marks and italics. In terms of the identity confidentiality of the participants, each participant is referred to as K1, K2... etc.

FINDINGS AND DISCUSSION

Findings should respond to the purpose of the study and be presented systematically. They should be supported with sufficient and relevant quotations, examples, tables and diagrams. Findings should be discussed with a reference to relevant and recent literature.

Table 1. Demographic distribution of participants and communication tools used

	f	%
Gender		
Female	6	26
Male	17	74
Age		
19-24	16	70
25-29	5	21
30 and over	2	9
Educational Level		
Undergraduate	22	96
Graduate education	1	4
Distance Education Tracking		
Mobile Phone	6	27
Tablet	1	5
Personal Computer (PC)	15	68
Communication/media Tool used		
Social media	20	24
E-mail	14	17
Web	10	12
Mobile media apps	9	11
Internet TV	9	11
Various programs and software	9	11
Blog	4	5
Computer games	4	5
Forum	2	2
Virtual reality	1	1
Interactive TV	1	1

As can be seen in Table 1, 26% of students that participated in the study were females, and 74% of them were males. The ages of 70% participants ranged between 19 and 24, while the ages of 21% of them ranged from 25 to 29, and 9% of them were 30 years of age or over. A total of 96% of the participants were undergraduate students, and 4% of them were graduate students. When the participants were asked how they followed distance education during the COVID-19 pandemic process, the majority of the participants (68%) stated that they utilized own personal computers to follow the distance education process. As seen in the table, 27% of participants followed distance learning with their mobile phones, while 5% used tablets.

As shown in Table 2, various communication/media tools were used by the participants during the pandemic. The number of those using social media corresponds to 24% of all participants. The number of those using e-mail, web, mobile web apps, internet TV, various programs and software, blogs, computer games, forums, virtual reality, and interactive TV corresponds to 17%, 12%, 11%, 11%, 11%, 2%, 5%, 5%, 1%, and 1%, respectively.

Table 2. Comparison of education pre and during the pandemic

Theme	Subtheme	f	%
The use of digital education and online platform applications for educational purposes during the pandemic process	I follow my school courses from online applications	18	21
	I communicate with my teachers and friends through online applications	17	20
	I use online platforms for homework and exams	16	19
	I follow the developments related to my department on online platforms.	12	14
	I follow scientific studies regarding my field on online platforms	12	14
	I follow courses and digital trainings related to my field from online platforms	11	12
The impact of digital education and online platforms on education	Communication is more difficult	12	32
	Having motivation difficulties	9	24
	Education is student-centered	5	14
	Constantly given homework	5	14

	Opportunity to both study and attend class	4	11
	More comfortable communication	2	5
Pre-pandemic education	Face-to-face education was more effective	17	71
	In-class interaction was easier	3	13
	Practical courses were more productive	4	16
Changes to education during the pandemic period	Communication was restricted	7	19
	Lack of concentration and motivation	9	24
	Infrastructural problems hinder	6	16
	Communication has increased	6	16
	More comfortable participation in the course	4	11
	Sharing with friends has increased	2	5
	Nothing has changed much	3	8
Recommendations for post-pandemic distance education	Education needs to be more technology-oriented	8	29
	Technical infrastructure should be developed	5	18
	It's very good	4	14
	In-class communication should be more effective	3	11
	It is important to be able to access the lessons again.	3	11
	It must be switched back to face-to-face education	3	11
	Student participation should be increased	2	7

The participants were asked how they utilized digital education and online platform applications for educational purposes during the pandemic. The responses of the participants were as follows: I follow my school courses from online applications (n=18); I communicate with my teachers and friends through online applications (n=17); I use online platforms for homework and exams (n=16); I follow the developments related to my department on online platforms (n=12); I follow scientific studies regarding my field on online platforms (n=12); I follow courses and digital trainings related to my field from online platforms (n=11).

The participants' views on the impacts of digital education and online platforms on education and learning processes have been gathered under 6 subthemes as follows: Communication is more difficult (n=12), Motivation difficulty is experienced (n=9), Education is student-centered (n=5), Constantly given homework (n=5), Opportunity to both study and attend class (n=4), and More comfortable communication (n=2).

Some of the responses of the participants are as follows:

"When the learning was face-to-face, courses were more enjoyable and better, and I was able to follow the courses much more consciously. When the schools closed due to the COVID-19 pandemic, online courses became inevitable, and this brought adaptation challenges together with it. I have experienced difficulties in concentrating on the courses, and communicating; during the online courses, my communication with the instructors has decreased to a great extent". K2

The participants' views regarding the face-to-face education (understanding the courses, participation in the courses, interaction and communication with the instructors and friends, other variables) during the pre-pandemic education period in their school are presented under three themes: face-to-face education was more effective (n=17), in-class interaction was easier (n=3), and practical courses were more productive (n=4). Some of the views of the participants are as follows:

"I am a supporter of face-to-face education. Our school is very successful in this regard." K7

"There was opportunity for interaction with friends. Now, we have fallen away a bit, and in-class interaction and communication have become difficult": K11

The views of the participants about the changes to education during the pandemic period were examined. The views of the participants regarding the differences experienced in this period are as follows: Communication was restricted (n=7), Lack of concentration and motivation (n=9), Infrastructural problems hinder (n=6), Communication has increased (n=6), More comfortable participation in the course (n=4), Sharing with friends was increased (n=2), and Nothing has changed much (n=3). The results of other studies conducted on distance education during the pandemic period are similar to the results obtained through this study.

"Our communication with the instructors and our communication with our friends increased, we started to help each other more." K5

I hardly participated in the courses and I experienced difficulty in concentrating. Most of the time, I experienced internet problems, so I had a hard time following the courses" K13.

Considering the experiences during the pandemic, the suggestions put forward by the participants on what can be done to make the distance education process more effective and efficient after this process are as follows: Education needs to be more technology-oriented (n8), Technical infrastructure should be developed (n5), It's very good (n4), In-class communication should be more effective (n3), It is important to be able to access the

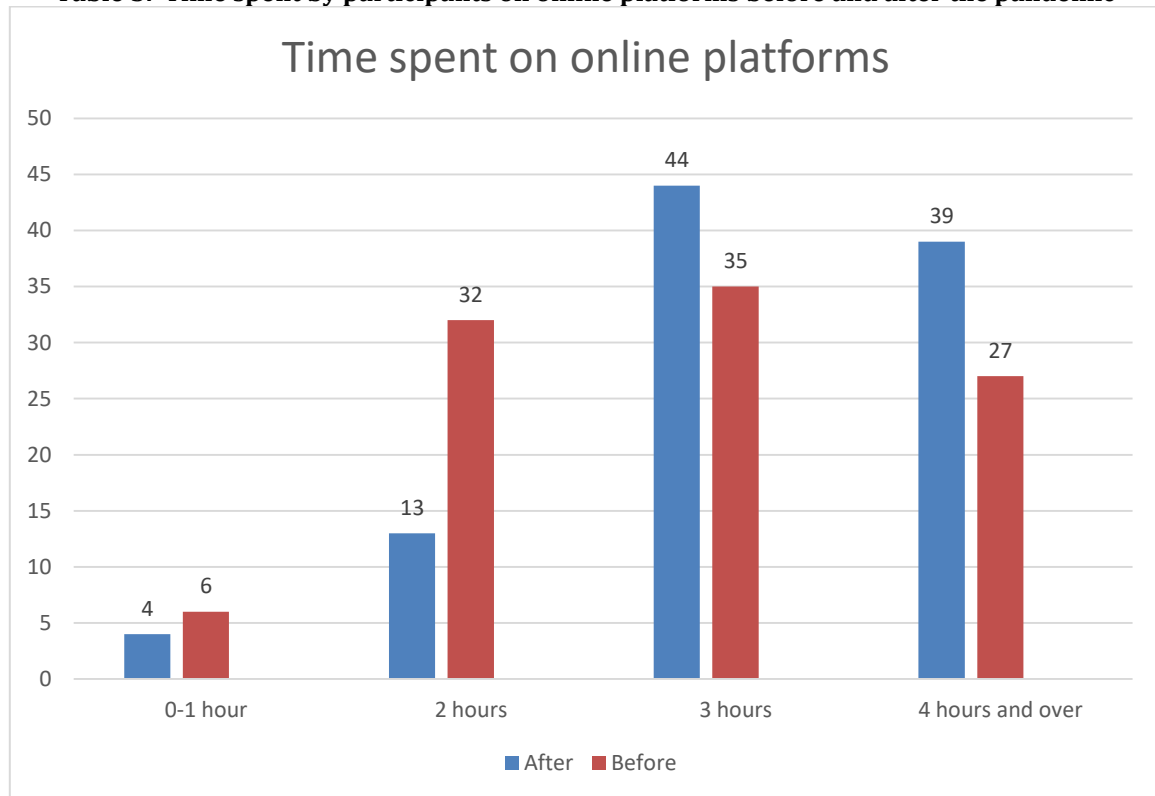
lessons again (n3), It must be switched back to face-to-face education (n3), and Student participation should be increased (n2).

One of the prominent suggestions of the participants regarding future distance education is that the education should be more technology-oriented and the technological infrastructure should be developed accordingly. Some of the opinions expressed are:

“It would be better to give up the distance education process and switch to face-to-face education.” K4

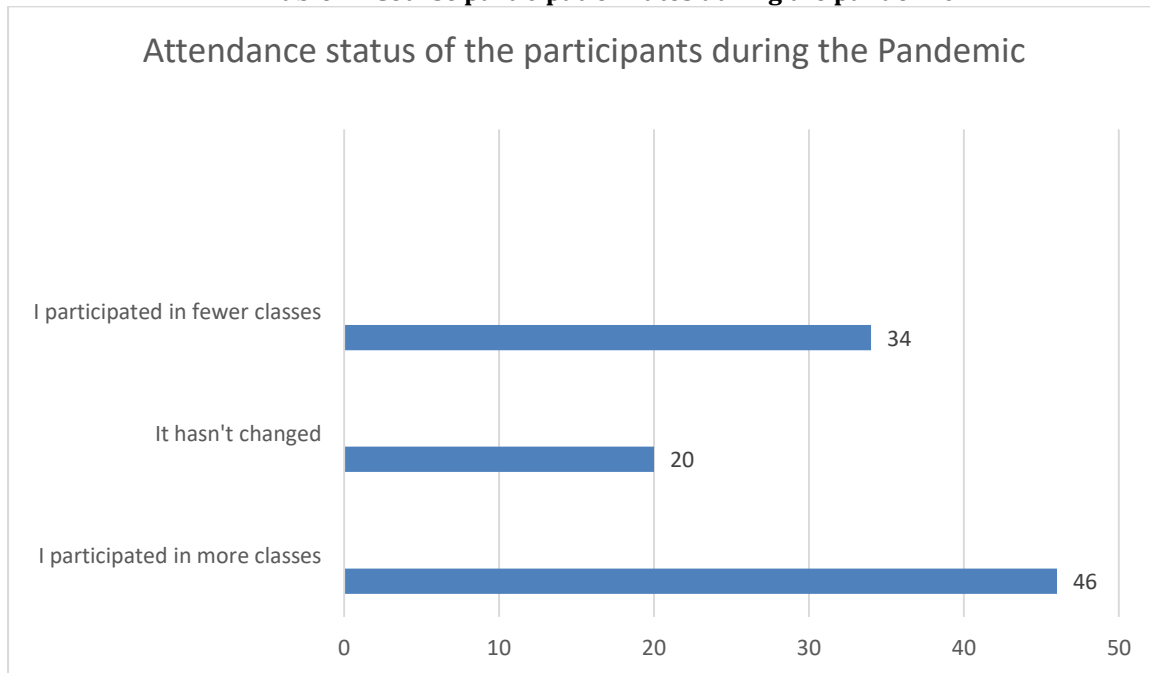
“From now on, education should be more technology-oriented and skills required for technology based education should be developed”. K18

Table 3. Time spent by participants on online platforms before and after the pandemic



The participants were asked how much time they spent on online platforms per day on average before and after the pandemic, and the responses of the participants are shown in Table 3. Considering the time spent online by the participants before the pandemic, Table 1 demonstrates that 6% of participants spent 0-1 hour a day online, 32% of them spent 2 hours a day online, 35% of them spent 3 hours a day online, and 27% of them spent 4 hours or more a day online. Considering the time that participants spend online after the emergence of pandemic, Table 1 demonstrates that 44% of them spend 3 hours a day, 39% of them spend 4 hours or more a day, 13% of them spend 2 hours a day, and 4% of them spend 0-1 hour a day on online platforms. Considering the data obtained, it is clear that the time spent on online platforms has significantly increased after the emergence of the COVID-19 pandemic.

Table 4. Course participation rates during the pandemic



Participants were asked whether the pandemic led to a change in their course participation, and what was the change if they had experienced such a change. Participants' responses have been presented in Table 4. In the line with the responses participants, it can be said that 34% of the participants attended fewer courses, while 46% of them attended more courses and 20% of them stated that there was no change.

Table 5. The participants' views on the course load in digital education during the pandemic
Changing course load perception

Changing course load perception		f	%
	The need for preparation in advance	13	34
	The obligation to conduct more research	8	21
	More homework is given	11	29
	Active participation in the course	6	16

Table 5 presents the participants' views on the course load in digital education during the pandemic. 34% of participants highlighted the need for preparation in advance, 29% of them underlined the necessity for conducting more research, 29% of them stated that homework was given more than ever before, and 16% of the participants emphasized the necessity for active participation in classes.

Table 6. The expectations of the participants from the educational institution in terms of digital education during the pandemic period

Participants' expectations from the educational institution in digital education		f	%
	Contributing to the development of skills required for digital education	4	17
	Organizing informative seminars/meetings	4	17
	Providing supporting additional courses	6	26
	Creating an easy communication network	9	40

The participants' expectations from the educational institution for digital education during the pandemic have been questioned and their answers have been presented in table 4. 17% of participants expect their educational institution to contribute to the development of the skills required for digital education, while 17% of them expect informative seminars/meetings concerning digital education. 26% of participants expect their educational institution to provide supportive extra classes, while 40% of them expect an easy communication network to be created by their educational institution.

Table 7. Contribution of digital education to professional development according to the opinions of the participants

Contribution of digital education to professional development		f	%
	It helps develop researching skills	5	22
	It contributes to lifelong learning	3	13
	Opportunity to participate in international activities	3	13
	Improving the use of technology	12	52

Table 7 presents the participants' opinions on how digital education contributes to their professional development. 22% of the participants considered that digital education helps them develop their research skills, 13% of them highlighted the significant role of digital education in contributing to lifelong learning, 13% of them considered that digital education provides the opportunity to participate in international activities, and 52% of them pointed to its crucial role in developing the use of technology.

Table 8. Positive changes in education during the pandemic process

Positive changes in education		f	%
	Being student-centered	9	30
	No place and time restrictions	11	37
	Orientation to research	3	10
	Being in more interaction with other students	7	23

Table 9. Negative changes in education during the pandemic process

Negative changes in education		f	%
	Increased course load	9	29
	Lack of motivation	6	19
	Infrastructural problems	14	45
	Difficulty in carrying out practical studies	2	7

The participants' views concerning the positive and negative aspects of the changes experienced in education with the transfer of education to the digital platforms during the pandemic process are shown in Tables 6 and 7. As seen in Table 8, which presents the participants' view concerning the positive changes, 30% of participants consider digital education as student-centered, 37% of them consider it as a positive outcome since digital education provides students with the opportunity to work and learn at their own pace without being dependent on time and space, 10% of them think that digital education encourages students to research, and 23% of them underline the crucial role of distance education in providing students with the opportunity to interact with other students. Participants also expressed their views regarding the negative changes experienced in education during the pandemic process; as seen in Table 9, 29% of participants consider the increased course load as a negative aspect of distance education, 19% participants drew attention to the lack of motivation, while 45% of them emphasized the infrastructural problems and 7% of participants pointed to the difficulties experienced in carrying out practical studies.

CONCLUSION

In this study, it is aimed to examine the changing perception of education and the concept of digital education in the direction of students' opinions during the Covid 19 pandemic process. In the results of the research, although the concept of digital education and learning processes indicate the partially positive aspects of the students, the conclusion that the concept of digital education does not have positive outputs in education in general and in the majority has gained weight.

As a result of the research, it was determined that the students mostly followed the lessons on their personal computers and mobile phones during the pandemic period. In studies investigating the devices used by students for distance learning during the pandemic period, it has been concluded that students mostly used mobile phones and personal computers (Can, 2020; Telli Yamamoto and Altun, 2020). It was concluded that the participants frequently used social media during the pandemic period.

The participants were asked "the purpose of using digital education and online platform applications in education during the pandemic process" and it was determined that the participants mostly used digital platforms for following lessons, communicating with teachers and friends, homework, exams and research. In their research study, Burgess and Sievertsen (2020) stated that students started to use online education platforms intensively due to the effect of the pandemic.

Regarding how digital education and online platforms affect the education and learning process, the research participants stated that communication became difficult, they had motivation difficulties, and they were given

constant homework. On the positive side, they stated that education is student-centered and they have the opportunity to both work and continue their education.

Within the scope of the research, students were asked to evaluate the pre-pandemic education and the differentiated education during the pandemic period. Regarding the pre-pandemic period, students mostly stated that face-to-face education was more effective. In the negative aspect of education, which differed during the pandemic period, the participants stated that communication was limited, there was a lack of motivation, and infrastructure problems created obstacles. Participants positively stated that there was more comfortable participation in the lesson and that sharing with their friends increased. In their studies, (Keskin & Özer Kaya, 2020; Koç, 2020) concluded that students experienced problems in communication and utilizing technical infrastructure, and in their studies, (Özdoğan and Berkant, 2020) pointed out that students experienced a loss of motivation during this process.

From this point of view, it can be assumed that the sustainability of digital education alone and as the only alternative education cannot be a long-term solution, and its outcomes are insufficient when compared with the outcomes of face-to-face education. However, when it is considered as an additional element to face-to-face education, we can see that the understanding of digital education and its model is interpreted as a positive value as it is not dependent on time and space.

REFERENCES

1. Bawa, P. (2016). Retention in online courses: Exploring issues and solutions – A literature review. Sage Open, 6(1), 1-11.
2. Bayrak, M., Aydemir, M. & Karaman, S. (2017). Uzaktan eğitim öğrencilerinin öğrenme stilleri ve doyum düzeylerinin incelenmesi. Çukurova Üniversitesi Eğitim Fakültesi Dergisi, <https://doi.org/10.14812/cuefd.310022>.
3. Can, E. (2020). Coronavirüs (Covid-19) pandemisi ve pedagojik yansımaları: Türkiye’de açık ve uzaktan eğitim uygulamaları. AUAd, 6(2). 11-53.
4. Chan, S. S., So, W. K., Wong, D. C., Lee, A. C. & Tiwari, A. (2007). Improving older adults’ knowledge and practice of preventive measures through a telephone health education during the SARS epidemic in Hong Kong: a pilot study. International Journal of Nursing Studies, 244(7), 1120-1127.
5. De Paepe, L., Zhu, C. & DePryck, K. (2018). Drop-out, retention, satisfaction and attainment of online learners of Dutch in adult education. International Journal on E-Learning, 17(3), 303-323
6. Fidalgo, P., Thormann, J., Kulyk, O., & Lencastre, J.A., (2020). Students’ perceptions on distance education: A multinational study. International Journal of Educational Technology in Higher Education.
7. Fidan, N.(1996). Okulda Öğrenme ve Öğretme. Alkım Yayınevi.
8. Gewin, V. (2020). COVID-19 bekletilirken öğretimi çevrimiçi taşımak için beş ipucu. Doğa, 580, 295-296.
9. Horspool, A., & Lange, C. (2012). Applying the scholarship of teaching and learning: Student perceptions, behaviours and success online and face-to-face. Assessment & Evaluation in Higher Education, 37(1), 73-88.
10. Keskin, M, & Özer-Kaya, D. (2020). COVID-19 sürecinde öğrencilerin web tabanlı uzaktan eğitime yönelik geri bildirimlerinin değerlendirilmesi. İzmir Kâtip Çelebi Üniversitesi Sağlık Bilimleri Fakültesi Dergisi, 5(2), 59-67.
11. Koç, E. (2020). An evaluation of distance learning in higher education through the eyes of course instructors. Akdeniz Üniversitesi Eğitim Fakültesi Dergisi, 3(1), 25-39.
12. Lei, S. A., & Gupta, R. K. (2010). College Distance Education Courses: Evaluating Benefits and Costs from Institutional, Faculty and Students’ Perspectives. Education, 130(4), 616-631.
13. Özdoğan, A. Ç. & Berkant, H. G. (2020). Covid-19 Pandemi Dönemindeki Uzaktan Eğitime İlişkin Paydaş Görüşlerinin İncelenmesi. Milli Eğitim, 49(1), 13-43.
14. Telli, S. G., ve Altun, D. (2020). Coronavirüs ve çevrimiçi (online) eğitimin önlenemeyen yükselişi. Üniversite Araştırmaları Dergisi, 3(1). 25-34. DOI: 10.32329/uad.711110
15. Uşun, S. (2006). Uzaktan eğitim. Nobel Yayıncılık.
16. Valentine, D. (2002). Distance learning: promises, problems, and possibilities. Online Journal of Distance Learning Administration, 5(3).
17. Venter, K. (2003). Coping with isolation: The role of culture in adult distance learners’ use of surrogates. Open Learning, 18(3), 271-287.

18. Watts, L. (2016). Synchronous and asynchronous communication in distance learning: A review of the literature. *Quarterly Review of Distance Education*, 17(1), 23-32.
19. Zuhairi, A., Wahyono, E., & Suratinah, S. (2006). The historical context, current development, and future challenges of distance education in Indonesia. *Quarterly Review of Distance Education*, 7(1), 95-101.