Available online at **globets.org/journal**
International Journal of Education, Technology and Science
3(3) (2023) 669–683

IJETS
International Journal of Education Technology and Science

DETERMINING THE DISTANCE EDUCATION SATISFACTION OF UNIVERSITY STUDENTS DURING THE COVID-19 PANDEMIC

Gökçe BECİT İŞÇİTÜRK [a] *

Faculty of Education, Nevşehir Hacı Bektaş Veli University, Nevşehir-50300, Turkey

Received: 11.05.2023 Revised version received: 03.08.2023 Accepted: 05.08.2023

Abstract

The aim of this study is to determine the distance education satisfaction of students studying at a public university during the pandemic period and to identify the strengths and weaknesses of distance education from the students' perspective. This research, conducted with both qualitative and quantitative research designs using a concurrent nested mixed methods approach, aims to determine students' demographic information and satisfaction levels through quantitative methods and to identify students' views on the strengths and weaknesses of distance education through qualitative methods. According to the results of the satisfaction survey, it is observed that students' satisfaction is above average. However, it is concluded that the category with the highest satisfaction is accessibility, while the category with the lowest satisfaction is the learning management system used. When examining the participants' views on the strengths of distance education, the results show that it allows the opportunity for reviewing the lessons, offers time independence, provides easy access, enables learning from home environment, and facilitates communication with the instructors. On the other hand, the participants mentioned internet access problems, technological equipment requirements, content-related issues, lack of motivation, communication gaps, and excessive exposure to technology as the weaknesses of distance education.

Keywords: Distance Education, Student Satisfaction,

*Gökçe BECİT İŞÇİTÜRK ORCID ID. 0000-0001-6375-342X
E-mail: gokcebi@nevsehir.edu.tr

1. Introduction

In the face of the extraordinary situation experienced on a global scale and declared as a pandemic by the World Health Organization, the Higher Education Council (YÖK) announced that starting from 23.03.2020, distance education with digital facilities will commence in all universities capable of distance learning. With the closure of educational institutions worldwide, universities have the responsibility to continue delivering education as the lockdown and restrictions may be extended for a longer period (Basuony et al.,2021). UNESCO recommends distance learning programs and open educational applications during school closure caused by COVID-19 so that schools and teachers use to teach their pupils and bound the interruption of education. Therefore, many institutes go for the online classes (Shehzadi et al., 2020). Similar to universities all over the world, 121 (64%) of 189 universities in Turkey continued their education via distance education as of March (YÖK, 2020). In the new normalization process in higher education, universities are expected to transition their educational and instructional services to distance learning environments without compromising the learning outcomes they have committed to providing to students (YÖKAK, 2021). However, when examining the practices of distance education during this period, differences can be observed among universities in various aspects, such as the platforms used, online class durations, and assessment tools. In this context, both system-related and student-related variables have the potential to influence the level of satisfaction with the process. Satisfaction refers to the positive feeling and contentment experienced by an individual or group concerning an experience or situation that meets or exceeds their expectations. It arises when a situation or experience aligns with an individual's preferences, needs, or expectations. When a student is content with the distance learning processes and the quality of instruction provided by their university, they express satisfaction with their education. Whether face-to-face or distance, the degree to which students' expectations are met affects both their achievements and satisfaction levels (Chiandotto, Bini, & Bertaccini, 2007). When expectations are not met, complaints and dissatisfaction increase. As complaints increase, the level of satisfaction and consequently, achievement, decrease. Therefore, studies aiming to determine students' satisfaction with distance education and the variables affecting their satisfaction gain importance. In the literature, there are studies examining university students' satisfaction with distance education during the pandemic. Karadağ & Yücel (2020) conducted a study to investigate the satisfaction of undergraduate students with distance education practices during the Covid-19 period. Descriptive tests, t-tests, and ANOVA tests were used to analyze the data. As a result of the study, the highest satisfaction was found in the "Higher Education Council Satisfaction" category, while the lowest satisfaction was observed in the "University and Faculty Management Satisfaction" and "Digital Content/Instructional Material Satisfaction" categories. In the study conducted by Buluk & Eşitti (2020), it was found that male students found online education classes more effective and were more satisfied. The study also concluded that support services, learning conditions, assessment system in distance education, program effectiveness, and students' personal

suitability for this new system were significant determinants of students' satisfaction with online education classes. In the study conducted by Tüzün and Toraman (2021) with the aim of exploring the factors that may affect university students' satisfaction with distance education and providing recommendations to higher education institutions based on the findings, it was shown that the negative attitude of university students towards distance education stemmed from various physical, university-related, psychological, and demographic factors. Physical factors included (i) students' access to electronic devices and (ii) internet access, while university-related factors encompassed (i) adequacy of institutional communication, (ii) time allocated for education, (iii) implementation of synchronous/asynchronous teaching methods, and (iv) perception of unfair grading due to online exam practices. Psychological factors were identified as (i) the diagnosis of illness and the risk of contracting the disease, (ii) increased household size and domestic conflicts resulting from quarantine practices, and (iii) sleep problems and concerns about food scarcity. Turkmen, Sardogan, and Sozen (2021), in their study aimed at identifying the factors influencing university students' satisfaction with distance education and the difficulties they encountered, found that the technical dimension and advantages of distance education positively influenced satisfaction, while the disadvantages of distance education had a negative impact on satisfaction. Additionally, it was determined that students experienced difficulties in three dimensions during the distance education process: technical, educational, and social. Basuony at al. (2021) aimed to investigate factors affecting students' satisfaction with online learning during the COVID-19 pandemic. The findings of this study reveal that Egyptian university students prefer to use synchronous teaching methods using different platforms. Attending virtual sessions and real-time conference call classes are the most preferred mode of delivery as perceived by the respondents. Also, the results of this study found that the internet, platform, class time, loss of interest, motivation and self-motivation and use of online exams as an assessment can be considered as the factors that significantly affect students' satisfaction with online learning in Egypt.

Distance education, which conceptually started to be discussed in Turkey in the 1920s, was formally initiated in various levels and fields of education after experiments conducted in the 1970s. It is observed that the processes of distance education are shaped by the information and communication technologies used and their changes over time. Despite various institutions and organizations implementing distance education from the 1970s to the present, it has not been as widely used in our country as it was during the Covid-19 period. The necessity of conducting education in distance during this period both emphasized the value of distance education once again and revealed the deficiencies in the process. The satisfaction of learners with the learning process varies according to the quality of the services provided in learning environments. Assessing the level of satisfaction can provide insights into the quality of learning environments. Especially during the pandemic period, the satisfaction of students with the hastily implemented distance education processes also varies. Determining the satisfaction of stakeholders with the

process becomes crucial for designing more successful instructional designs and increasing the effectiveness of the process.

It is seen that studies in the literature are generally designed using quantitative research methods. Mixed methods research is an important approach to determine university students' satisfaction with distance education, as it allows for more comprehensive and in-depth data collection, increases the diversity of research results, and contributes to the development of future strategies. In this study, the aim is to determine university students' satisfaction with distance education and their views on the strengths and weaknesses of distance education using a mixed methods design. The specific objectives of the research are as follows:

1. What is the level of university students' distance education satisfaction during the Covid-19 pandemic?
2. What are the views of university students on the strengths of distance education during the Covid-19 pandemic?
3. What are the views of university students on the weaknesses of distance education during the Covid-19 pandemic?

2. Method

This study was conducted using a concurrent nested mixed methods design, which involves both qualitative and quantitative research approaches. Mixed methods research is described as the integration of qualitative and quantitative methods, approaches, and concepts within a study. In this design, both quantitative and qualitative data are collected and analyzed simultaneously (Creswell, 2003). The aim of this study was to determine students' demographic information and satisfaction levels using a quantitative method, while also identifying students' views on the strengths and weaknesses of distance education using a qualitative method.

2.1. Study Group

The study group of the research consists of students enrolled in associate degree, undergraduate, master's, and doctoral programs at Nevşehir Hacı Bektaş Veli University. In this research, a total of 14,701 students who are currently continuing their higher education through distance education due to the pandemic and voluntarily participated in the research by responding to the online survey form the sample of this study. Students have been conducting

their educational activities through distance education since the beginning of the pandemic in March 2020.

2.2. Data collection tool

The research consists of two parts. In the first part, the participants' level of satisfaction with distance education was determined by applying a questionnaire, and in the second part, students were asked two open-ended questions to evaluate the strengths and weaknesses of distance education. The questionnaire used to collect quantitative data in the research consists of two sections and includes a total of 23 questions. For the content validity study of the Distance Education Satisfaction questionnaire, three field experts, including one Turkish language expert, were asked to review the suitability, comprehensibility, and language used in the questionnaire items. Based on the feedback received from the experts, the suggested corrections were made, and the questionnaire was finalized. The first part of the questionnaire consists of factual and demographic questions. This section includes 5 items for general information purposes, such as internet access status, daily use of information and communication technologies (ICT), ICT experience, and ICT competencies. The general information about students, such as gender, department, faculty or vocational school, and class, was obtained from the student information system. The second part of the questionnaire includes five-point Likert scale questions regarding student satisfaction with distance education during the pandemic. The response options for the questionnaire are "1" completely disagree, "2" disagree, "3" partially agree, "4" agree, and "5" completely agree. This section contains a total of 18 items, including 4 items related to access opportunities, 4 items related to the distance education center, 6 items related to the system used, and 4 items related to the teaching-learning process. The average completion time for the questionnaire is 3-4 minutes, and students have given consent for the use of their answers in an academic study. The qualitative data of the research were collected through two open-ended questions that were designed by the researcher and conducted through pilot interviews with four students from different class levels.

2.3. Data Analysis

In the quantitative dimension of the research, descriptive analyses were conducted, and percentages, means, frequencies, standard deviations, and scores were calculated. Frequency graphs were drawn for the data obtained from the Distance Education Satisfaction Questionnaire, and separate descriptive statistics were reported for each item. In the qualitative part of the research, two open-ended questions were asked to determine students' views on the strengths and weaknesses of distance education. The data obtained were evaluated using content analysis method. The purpose of content analysis is to extract themes and concepts from similar

data within text blocks, group these concepts into categories, and organize them in a way that the reader can understand (Yıldırım & Şimşek, 2013). In this study, the responses to each question were processed into relevant indices, and the collected data were prepared for analysis by making question-based classifications. The researcher examined and categorized the data, and meaningful segments were coded. The coded data were brought together, categorized into themes, and transformed into a coding key. Then, the data were organized according to codes and themes, and finally, the defined findings were interpreted. To ensure the criteria for validity in the research, the collected data and how the results were obtained were reported in detail (Yıldırım & Şimşek, 2013). Therefore, the reported findings in the study were directly supported by quotations. For the purpose of checking the reliability of the study, in the descriptive analysis process, the reliability formula by Miles & Huberman (1994) (Reliability = Agreement / (Agreement + Disagreement)) was used. In this context, two individuals, including the researcher and an expert in computer and instructional technology education, independently created themes. The reliability of the data analysis was calculated as 91%.

3. Results

In this section of the research, the obtained data and the findings derived from this data have been interpreted and reported. First of all, the data related to the demographic information of the students were presented, followed by the analyses and interpretations regarding the sub-objectives of the research.

3.1. Findings on demographic data

The basic statistics for the demographic data of the students are shown in Table-1. According to the table, 61.3% of the participants are female, while 38.7% are male. The majority of the sample, 64.8%, consists of undergraduate students. This percentage is 6.8% for graduate students and 28.4% for associate degree students. Approximately 55% of the participants consider their ICT (Information and Communication Technology) proficiency to be moderate (I can use word processors, presentation software, spreadsheet programs, etc. for my purposes, I can easily handle my daily tasks with the help of technology, I rarely need assistance).

Table 1. Demographic Information of Participants

	n	%
Gender		
Female	9010	61,3
Male	5690	38,7
Education Level		
Associate degree	4173	28,4
Licence	9527	64,8
Graduate	1001	6,8
Internet Access		
Sufficient	8961	61
Insufficient	5740	39
ICT Usage Period		
1-2 years	4722	32,1
3-4 years	3439	23,4
5-6 years	2857	19,4
More than 7 years	3683	25,1
Daily ICT Usage		
Less than 1 hour	2374	16,1
1-2 hours	4521	30,8
3-4 hours	5011	34,1
More than 5 hours	2795	19
ICT Proficiency Level		
Insufficient	2596	20,5
Moderate	6866	54,3
Sufficient	3174	25,2

3.2. Findings on Participants' Distance Education Satisfaction

The participants were asked to evaluate their satisfaction with distance education using a 5-point Likert scale (1-Lowest score, 5-Highest score). The average satisfaction score given by the

participants for the distance education they received from their universities is 3.43. Table 2 presents the findings related to the sub-dimensions of the questionnaire, including access opportunities, support services, LMS used, distance education teaching process, and overall satisfaction.

Table 2. Means and Standard Deviations of Dimensions on Distance Education Satisfaction

	Mean	SD
Access opportunities	3,5432	1,04251
Support services	3,3583	1,01718
LMS used	3,2788	,72312
Distance Education Teaching Process	3,3657	1,00498
Overall Satisfaction	3,3794	,86627

While the students are most satisfied with the sub-dimension of access opportunities, the survey question where they show the highest level of satisfaction is also included in this sub-dimension. When examining the overall averages, the lowest score obtained from the scale items is related to satisfaction with the Learning Management System (LMS) used. According to these averages, it can be stated that the participants are least satisfied with the LMS used as a sub-dimension. Similarly, the survey question with the lowest satisfaction score is also related to the LMS used, which is the area where students are least satisfied. The survey question "I know how to access the distance education system." (X=3.71) received the highest satisfaction score, while the question "I can connect to the distance education system without any problems." (X=3.22) obtained the lowest satisfaction score. The overall satisfaction average of the students is 3.3794, indicating a high level of satisfaction.

3.3. Findings Regarding the Strengths of Distance Education

8426 of the participating students expressed their views on the strengths of distance education. The participants' views on the strengths of distance education were categorized under five main themes: providing the opportunity for review, being independent of time, ease of access, studying at home, and communication with instructors. The percentages and f-values related to the themes are given in Table 3.

Table 3. Participants' Views on the Strengths of Distance Education

	f	%
Providing the opportunity for review	2256	26,78
Being independent of time	2205	26,17
Ease of access	1856	22,03
Studying at home	1245	14,78
Communication with instructors	864	10,24

Distance education provides students the opportunity to learn at their own pace, return important materials when they miss them, support their own learning process, and have the chance to review the content. This way, each student can personalize their learning experience according to their needs and learning style. Participants supported the theme of "revisiting content" with statements such as: *"Having the chance to rewatch lessons from class recordings or platforms like YouTube. Especially being able to watch experiments as videos; if we were in school, we could only watch the experiment once," "Being able to watch lessons 2-3 times and revise them is the strongest aspect in my opinion,"* and *"Being able to take notes while watching lessons."* Regarding the theme of "flexibility of time," participants expressed their views with statements like: *"Being able to attend classes without being tied to a specific time is a significant advantage; I worked during the day and watched my classes at night,"* and *"Being able to manage my time according to my own schedule was the strongest aspect for me."* Distance education effectively provides students with access to course materials and resources using the power of technology and the internet. Participants supported the theme of "easy access" with statements like: *"Previously, I struggled to find course notes, but now all the notes, and even the classes, are just a click away on my computer,"* and *"As long as I have an internet connection, accessing classes, notes, and my instructors has never been this easy.* Especially during the pandemic, participants perceived staying at home as a sense of safety, and they expressed their views on this theme with statements like: *"We had the opportunity to receive education in the safety of our homes without the risk of the virus," and "It would have been challenging to stay safe from the virus in dormitories; thanks to distance education, we received education at home without the worry of the virus."* Regarding the theme of "communication with instructors," participants expressed their views with statements like: "*It felt like reaching out to my professors was easier during this period; our instructors responded to all our messages and provided us with necessary information," and "Our instructors were just a message away during this period."*

3.4. Findings Regarding Weaknesses of Distance Education

9808 of the participating students expressed their views on the weaknesses of distance education. Participants' views on the weaknesses of distance education were categorized under six main themes: Internet access issues, technological equipment requirements, problems related to content, lack of motivation, communication deficiencies, and exposure to excessive technology. The percentages and f-values related to these themes are given in Table 4.

Table 4. Participants' Views on the Weaknesses of Distance Education

	F	%
Internet access issues	3286	33,50
Technological equipment requirements	2003	20,42
Problems related to content	1680	17,13
Lack of Motivation	1455	14,84
Communication deficiencies	926	9,44
Exposure to excessive technology	458	4,67

Participants' opinions regarding the theme of internet access issues were supported and justified with statements such as *"getting disconnected from the system due to insufficient internet connection," "couldn't efficiently attend live classes because of poor internet reception where I live,"* and *"we frequently experienced internet data limit issues, our internet quota was not enough."* The theme of technological equipment requirements was frequently mentioned by participants who stated, *"there is no convenience or privilege provided for students who do not have computers or tablets. As a result, some of us and some of my friends were unable to attend certain classes,"* and *"watching classes on a phone screen makes it difficult to see clearly. If I had a computer or tablet, I wouldn't have faced this problem."* Regarding the theme of problems related to content, participants expressed their views as *"not being able to provide certain activities required by my profession, such as field trips and on-site activities, was a significant drawback," "it was a challenging journey for me to access sufficient content,"* and *"I believe that the lecture presentations were not designed appropriately for distance education."* As for the theme of lack of motivation, participants shared their perspectives saying, *"I had difficulties motivating myself to watch classes alone at home," "I think the lectures were not designed in a way to motivate us enough," "not being able to be with my friends affected my motivation,"* and

"not being able to leave home negatively affected my motivation." Under the theme of communication deficiencies, participants stated that they experienced communication gaps both with their classmates and the course instructor. They expressed their views as *"we experienced serious communication gaps, couldn't feel the class atmosphere, and realized that I learn a lot from my classmates in face-to-face education"* and *"reaching my instructor was not easy, we messaged through the system, but there were misunderstandings during messaging."* The theme of exposure to excessive technology highlighted the fact that distance education's technology-dependent nature might increase students' reliance on computers and other digital devices. Participants expressed their opinions as *"yes, it was nice to be able to rewatch the lectures, but it also meant spending the whole day in front of the computer," "my education didn't get interrupted, but I felt like I was becoming dependent on the computer,"* and *"I constantly checked the LMS for new notifications and messages, which led to constant back and neck pain from sitting in front of the computer all the time."*

4. Discussion

During the pandemic, a new teaching environment was developed, and an emergency transition to distance education was implemented, affecting more than 1.5 billion students worldwide (Arnett & Waite, 2020; Pollock, 2020). Distance education, which had been considered an alternative to traditional classroom settings until the pandemic, became an indispensable solution for educational institutions during this period (Sobaih et al., 2020; Wahab, 2020). This situation prompted researchers to investigate and evaluate various aspects of education and distance learning, as well as to identify variables influencing participants' satisfaction and contentment with distance education. This study aims to determine the satisfaction of students attending a state university during the pandemic with distance education and to identify the strengths and weaknesses of distance education from students' perspectives. According to the results of the satisfaction survey, students' satisfaction with distance education is found to be above average. Existing literature also supports the findings of this study, with studies indicating high satisfaction with distance education (Buluk & Eşitti, 2020; Basuony et al., 2021; Gopal, Singh, & Aggarwal, 2021; Karadağ & Yücel, 2020; Türkmen, Sardoğan & Sözen, 2021), as well as studies reporting lower satisfaction levels (Serçemeli & Kurnaz, 2020; Tüzün & Yörük-Toraman, 2021). When examining the sub-dimensions of distance education satisfaction, it was observed that students were most satisfied with the accessibility category, while the least satisfied with the instructional management system category.

When examining the participants' views on the strengths of distance education, results show that the ability to review the content, flexibility in terms of time, easy accessibility, the convenience of learning at home, and communication with instructors are the prominent aspects. On the other hand, the weaknesses of distance education, as expressed by the participants, include internet connectivity issues, the need for technological tools, content-related challenges,

lack of motivation, communication gaps, and excessive exposure to technology. The technical dimension of distance education positively influences students' satisfaction with the distance learning experience. The accessibility provided by universities for distance education and the ease of accessing the system have a positive impact on students' satisfaction with the distance learning process (Turkmen, Sardogan, and Sozen, 2021). It has been observed that not having access to a computer and insufficient internet negatively affect distance education satisfaction (Adnan & Anwar, 2020; Dubey & Pandey, 2020; Altun et al., 2021; Bataineh & Atoum, 2021). The finding of the lack of motivation in this research is supported by the fact that students experienced increased feelings of isolation and loneliness, especially during the COVID-19 pandemic (Aguilera-Hermida, 2020; Liu et al., 2021; Houghton et al., 2021).

Distance education is an important method that addresses the changing educational needs of our era. However, the key to success in distance education lies in adopting an effective approach that enhances students' satisfaction level. A student-centered and interactive educational model can increase success in distance education by providing students with a tailored, motivating, and fulfilling learning experience. Educational institutions and educators should focus on continuously improving the process of distance education to maximize student satisfaction.

5. Conclusions

Based on the research findings, recommendations have been developed for both the research and implementation. According to the research results, students identified internet connection and access to technological devices as weak points in distance education. Therefore, studies that investigate the role of technology and its better integration into the learning process in distance education become crucial. Experimental studies identifying effective online teaching strategies that promote student participation, motivation, and active learning will strengthen the literature.

Participants expressed experiencing problems related to content. Therefore, research focusing on factors affecting student participation and motivation in distance education and conducting experimental studies to monitor and improve student engagement and motivation will be significant. The satisfaction with support services significantly influenced overall satisfaction levels among the participants. Consequently, it is important to investigate the impact of various student support services on online students' academic achievements and overall satisfaction and identify appropriate support mechanisms for online students. To address the issue of motivation deficiency mentioned by the participants, research should be conducted to explore factors influencing student participation and motivation in distance education. It is recommended to design experimental studies to monitor student engagement and motivation over time. Furthermore, to tackle problems like social isolation and communication issues raised by the participants, it is suggested to investigate the importance of social presence in online learning environments and devise strategies to foster a sense of community among students.

Designing the process of distance education in a student-centered, interactive, and supportive manner will positively impact students' achievements and learning experiences. In this context, based on research findings, the following are proposed implementation recommendations to enhance distance education satisfaction: Addressing students' technical needs, facilitating clear and effective communication between teachers and students, designing lessons interactively and inclusively, encouraging active student participation through tools like surveys, Q&A sessions, small group activities, and online discussion platforms, presenting distance education in a motivating way and helping students set concrete goals. By implementing these suggestions, distance education satisfaction can be increased.

Declaration of Conflicting Interests and Ethics

The authors declare no conflict of interest.

References

Adnan, M. ve Anwar, K. (2020). Online Learning Amid the COVID-19 Pandemic: Students' Perspectives. *Journal of Pedagogical Sociology and Psychology*, 2(1), 45-51. doi:10.33902/JPSP. 2020261309.

Aguilera-Hermida, A. (2020). College students' use and acceptance of emergency online learning due to COVID-19. International Journal of Educational Research Open, 1. doi:https://doi.org/10.1016/j.ijedro.2020.100011

Arnett, T. & Waite, C. (2020). A new road map for schools. *The Learning Professional, 41*(3), 38-41.

Basuony, M. A., EmadEldeen, R., Farghaly, M., El-Bassiouny, N., & Mohamed, E. K. (2021). The factors affecting student satisfaction with online education during the COVID-19 pandemic: an empirical study of an emerging Muslim country. *Journal of Islamic Marketing*, 12(3), 631-648.

Bataineh, K. B. ve Atoum, M. S. (2021). A Silver Lining of Coronavirus: Jordanian Universities Turn to Distance Education. *International Journal of Information and Communication Technology Education,* 17(2), 138-148. doi:10.4018/IJICTE.20210401.oa1.

Buluk, B., & Eşitti, B. (2020). Koronavirüs (COVID-19) Sürecinde Uzaktan Eğitimin Turizm Lisans Öğrencileri Tarafından Değerlendirilmesi. *Journal of Awareness*, 5(3), 285-298.

Chiandotto, B., Bini, M., & Bertaccini, B. (2007). Quality Assessment of the University Educational Process: an Application of the ECSI Model (43-54). *Effectiveness of University Education in Italy: Employability, Competences, Human Capital* (Ed. Fabbris, L.). Physica-Verlag A Springer Company.

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks, CA: Sage.

Gopal, R., Singh, V., & Aggarwal, A. (2021). Impact of online classes on the satisfaction and performance of students during the pandemic period of COVID 19. *Education and Information Technologies*, *26*(6), 6923-6947.

Houghton, N., Houstoun, W., Yates, S., Badley, B., & Kneebone, R. (2021). Cross-disciplinary perspectives on the transition to remote education. *BMJ Simulation & Technology Enhanced Learning,* 7(6), 586.

Karadağ, E., & Yücel, C. (2020). Yeni tip Koronavirüs pandemisi döneminde üniversitelerde uzaktan eğitim: Lisans öğrencileri kapsamında bir değerlendirme çalışması. *Yükseköğretim Dergisi*, 10(2), 181–192. doi:10.2399/yod.20.730688

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook.* Sage publications.

Pollock, K. (2020). School Leaders' Work During the COVID-19 Pandemic: A Two-Pronged Approach. *International Studies in Education, 48*(3), 38-44.

Serçemeli, M., & Kurnaz, E. (2020). Covid-19 Pandemi Döneminde Öğrencilerin Uzaktan Eğitim Ve Uzaktan Muhasebe Eğitimine Yönelik Bakış Açıları Üzerine Bir Araştırma. *Uluslararası Sosyal Bilimler Akademik Araştırmalar Dergisi,* 4(1), 40-53.

Shehzadi, S., Nisar, Q. A., Hussain, M. S., Basheer, M. F., Hameed, W. U., & Chaudhry, N. I. (2020). The role of digital learning toward students' satisfaction and university brand image at educational institutes of Pakistan: a post-efect of COVID-19. *Asian Education and Development Studies*, 10(2), 276–294.

Sobaih, A.E., Hasanein, A.M. & Abu Elnasr, A.E. (2020). Responses to COVID-19 in Higher Education: Social Media Usage for Sustaining Formal Academic Communication in Developing Countries. *Sustainability*, *MDPI, 12*(16), 1-18.

Türkmen, İ., Sardoğan, B., & Sözen, İ. (2021). Covid-19 Sürecinde Üniversite Öğrencilerinin Uzaktan Eğitim Memnuniyetini Etkileyen Faktörler Üzerine Bir Araştırma. *Mehmet Akif Ersoy Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi,* 8(2), 854-875.

Tüzün, F., & Yörük-Toraman, N. (2021). Pandemi döneminde uzaktan eğitim memnuniyetini etkileyen faktörler. *Ömer Halisdemir Üniversitesi İktisadi ve İdari Bilgiler Fakültesi Dergisi*, 14(3), 822–845. http://doi.org/10.25287/ohuiibf.780189.

UNESCO (2020). United nations educational, scientifc and cultural organization. COVID19 educational disruption and response. UNESCO, Paris, France. https://en.unesco.org/themes/education-emerg encies/coronavirus-school-closures. Accessed 17 Nov 2022

Wahab, A. (2020). Online and Distance Learning in Higher Education Institutes: A Necessity in light of COVID-19 Pandemic. *Higher Education Studies 10*(3), 16-25.

Yıldırım, A. & Şimşek, H. (2013). Sosyal bilimlerde nitel araştırma yöntemleri. (9. Baskı). Ankara: Seçkin Yayıncılık.