

The views of Academic Staff on the Transition to Emergency Distance Education in the Pandemic Process

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Abstract: Education and training are constantly renewed in line with the changing world and emerging new learning needs. During the pandemic process in the world, the transition to distance education became essential at all grades of education. Many academicians started to use this system for the first time. The main subjects of this study are the effect of increasing technology usage times in the transition to compulsory distance education transition and the problems that may be encountered in distance education. From this point of view, the study aims to reveal the views of academic staff on compulsory distance education. This study used a case study, and the opinions of 20 lecturers working at Erzurum Ataturk University were collected with a semi-structured interview form. The obtained data were analyzed by creating themes and sub-themes through content analysis. In the light of the negotiations, difficulties in the planning and implementation of education, the difficulties in technological infrastructure problems, the advantages of distance education, and the situations created by technology in the distance education process were revealed. In light of the findings, it can be advised that all academics receive training on university distant education techniques.

Keywords: Distance education, pandemic, academicians.

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Introduction

While the last century passed as the century of information and communication technologies, in the 21st century we live in, great progress has been made in the field of the internet, and these advances contributed to the further development of information and communication technologies (Demirer, Bozoglan & Sahin, 2013; Yilmaz, Uredi & Akbasli, 2015). These developments led to the emergence of global communication networks and signaled that communication networks would gradually develop (Isman, 2011). The use of technology is constantly entering all areas of life and continues to take a larger place in human life with new developments (Kizilok & Ozok, 2021). In addition, technology is a production with a systematic working principle, which has an important place in daily life, all over the world, for many people of different ages, provides great convenience to its users in the production of products and services, and provides benefit or harm according to the purpose of use (Cini, 2019; Dinc, 2015; Jeong, Kim, Yum & Hwang, 2016; Usta, Durukan & Hacıoglu, 2016; Savci & Aysan, 2017). Naturally, these developments also affected education and increased the use of technology in educational activities (Ozgen, Narli & Alkan, 2013).

Distance education emerged as a method that could provide information exchange and communication, saving time and cost, even if the individuals who receive and give education were not physically in the same environment. In extraordinary situations where formal education could not be provided, in times such as today when epidemics occurred, distance education can ensure that education can be continued without interruption, since it was already available as an alternative education model (Ilgaz & Askar, 2009). The rapid spread of distance education and its mandatory use worldwide emerged during the COVID-19 pandemic. Many countries switched to distance education to minimize the impact of the pandemic on education (Hebebcı, Bertiz & Alan, 2020). The process progressed in this way in our country as well, and when the applications in Turkey were examined, it was seen that the distance education applications in our country were based on the past (Kaya, 2020).

According to the Turkish Statistical Institute (2019), while 75.4% of our citizens aged 16-74 were internet users, in 2021, Household Information Technologies Usage Research explained that 82.6% of our citizens aged 16-74 were internet users. The same research results reported that desktop computer usage was 16.8%, portable computer usage was 38.3%, and Smartphone usage was 99.3%. In the research, many individuals use technology; for the purpose of socializing, communicating, and interacting (Gunuc & Kayri, 2010; Ozgur, 2013); some use it as a shield against stress and to provide satisfaction (Isik, 2007; Samaha & Havi, 2016). In addition to all these advantages, there are also disadvantages like technology addiction (Yilmazsoy & Kahraman, 2017).

Excessive use can lead the individual to become lonely, and loneliness can lead to more use, creating a vicious circle. Individuals who spent more time with technology had health problems due to a lack of sleep patterns (Ulusoy, 2017), they experienced mood changes frequently (Cengizhan, 2005; Turel, Serenko, & Giles, 2011), and they yearned when

they stayed away from addiction sources (Cam & Isbulan, 2012) they were unable to focus on other work, and as a result, they were unsuccessful and experienced conflicts in their social and emotional relationships (Griffiths, 2000; Song, Larose, Eastin, & Lin, 2004; Weinstein & Lejoyeux, 2010; Whang, Lee & Chang 2003; Young, , 1998).

In addition, individuals who spend a lot of time in front of the screen were known to exhibit attitudes and behaviors such as not being able to control their use time, feeling unwell when they are away from it, experiencing behavioral disorders, and showing mood changes (Bian & Leung, 2015; Elhai, Levine, Dvorak, & Hall, 2017; Haug et al., 2015; Hawi & Samaha, 2016; Lin et al., 2015). In the context of all these risks, it was thought that it would become an expected situation for individuals to develop different and new reactions, considering the individuals who quickly switched to distance education during the pandemic period.

This rapid transition can be a source of stress for individuals who do not have any previous ties to the distance education system or have weak ties (Ozok & Aka, 2021). In addition, studies reported that stress was associated with technology addiction (Samaha & Hawi, 2016), impulse control disorder, depression, and social isolation, which was a necessity of the pandemic process (Shaw & Black, 2008; Yellowlees & Marks, 2007; Young & Rogers, 1998). With the widespread use of the Internet on phones, it became widespread to provide access to distance education from smart phones (Choi et al., 2015). Individuals, intertwined with technology due to their profession may use their work as a mask for their excessive use of technology after work (Young, 2009). In addition, according to Telli, Yamamoto, and Altun (2020), education was the sector most affected by COVID-19 after the health sector. It was obvious that the pandemic affected the education life of a large learning population in a very short time (Hebebcı, Bertiz, & Alan, 2020).

In their study on distance education, Arora and Srinivasan (2020) examined the adoption rate, benefits, and challenges of distance education. As a result of the research, it was determined that some teachers had positive views on distance education and emphasized problems such as network problems, education, and awareness. In another study examining university students' perspectives on distance education during the pandemic, Lall and Singh (2020) revealed that students had a positive attitude towards distance education due to flexible learning opportunities. Xie and Yang (2020), on the other hand, presented a study on students working on their own and working independently during the pandemic. Furthermore, due to the evolving nature of the pandemic, data on this phenomenon were limited, and interpretations were variable (Williams, McIntosh, & Russell, 2021).

Mandatory distance learning experience further highlighted the technological differences among students. On the other hand, these distinctions were closed by providing access to school systems. Studies to close the digital gap revealed deeper sociological problems (Kaden, 2020; Sayer & Braun; 2020). Bao (2020) noted that COVID-19 caused Chinese universities to close their campuses and force them to start teaching online, and six specific teaching strategies were presented for university lecturers to summarize current

online teaching experiences. These were: “high level of correlation between online instructional design and student learning”, “effective presentation of online instructional information”, “adequate support to students by faculty and teaching assistants”; “high-quality engagement to enhance the breadth and depth of student learning” and “a contingency plan to deal with the unexpected events of online education platforms”. During the COVID-19 pandemic, the rapid transition to online education in higher education necessitated the development of a teaching strategy (Yilmaz Ince, Kabul, & Diler, 2020).

The pandemic connected the home and school environments in ways that educators found challenging, but also informative and transformative. Teachers, school leaders and education researchers emphasized that the lessons learned should be kept in mind and the reforms should be permanent (Hall et al, 2020; Lynch, 2020). According to the findings of the study conducted by Tuncer and Tanas (2011), it can be understood that most of academicians did not participate in any distance education application, in addition to having knowledge about distance education, and the universities they work for do not have information about distance education. As a result, it is important to examine the effects of the rapid transition to distance education with the pandemic through the eyes of educators who are at the forefront of what could be an education revolution. This study aims to examine the experiences and difficulties of educators working in distance education. In other words, our aim in this study is to examine the views of faculty members working in higher education institutions about the transition to emergency distance education.

Method

Research Design

A case study, one of the qualitative research designs, was used in this study. In case studies, one or more situations (event, individual, or group) are investigated in depth and focused on the factors that affect or are affected by the researched situation (Cohen, Manion, & Morrison, 2005; Yildirim & Simsek, 2011). This study can be described as a case study in that it is carried out with the instructors who provide education and training services in an emergency and compulsory manner during the pandemic period and reveal their situations.

Study Group

The study group of the research consists of 20 instructors who provide education and training services at Erzurum Ataturk University. While determining the study group, criterion sampling, one of the purposive sampling methods, was used. The criterion sampling method studies all cases that meet a set of predetermined criteria (Patton, 1987). One of these criteria was the weekly course time given by the instructor, considering that a certain amount of time was spent in the distance education process

and the possibility of seeing many aspects of the situation. In this context, the criterion for the instructor to have more than 5 hours of lessons per week over the distance education system was determined. Another criterion was that faculty members were teaching at different levels. In this respect, instructors who conducted associate and undergraduate courses or undergraduate and graduate courses were included in the study group. The aim was to include instructors who could compare the situations encountered in the courses at different grades. As a result of these criteria, the study group consisted of 20 academic staff, 8 of whom are from faculties and 12 from vocational schools, who took part in the study voluntarily. The study group consisted of 1 Professor Doctor, 4 Associate professors, 7 Doctoral Faculty Members, and 8 Lecturers. On a weekly basis; participants with the title of Professor Doctor were teaching 6 hours, those with the title of Associate Professor Doctor were teaching 10 hours, the participants with the title of Doctor Lecturer were teaching 12 hours, and the participants with the title of Lecturer were teaching 17 hours on average. The average age of the participants was 37.8. Participants were working at their place of employment for at least 7 years. All of the participants were married.

Data Collection Process

The research data were obtained by using a semi-structured interview form consisting of four questions developed by the researchers. While preparing the interview questions, open-ended and understandable questions were included. The questions were grouped under four themes: planning and implementation of instruction, technological infrastructure problems, advantages of distance education, and its effect on emotions, taking into account similar studies in the literature. It was tried to reveal how the participants evaluated the effect of distance education in each theme that was put forward based on the interview questions. It was tried to ensure that the questions were fully understandable by explaining the questions that were not fully understood.

The interview form was presented to the opinions of experts in the field of the questions prepared by researching the literature. To ensure the validity of the content, the topics of the studies in the literature were presented to the experts with the interview form, and a proposal for addition and arrangement was added to the questions to reveal the situation. One question was corrected according to expert opinions. In order to ensure structural validity, the experts were asked to express their opinions on the clarity of the questions. In addition, the interview form was checked by a language expert, and the questions were arranged understandably and correctly. The first trial of the interview form was conducted with three participants to test whether the questions were clear and prepared in accordance with the purpose; it was concluded that they were understandable and suitable for their purpose. Interviews were completed by telephone and video chat, voluntarily, and by obtaining permission from the participants for audio recording. Interviews with each participant lasted approximately 20-25 minutes. Then, the tapes of the interviews were transferred to digital media and prepared to be analyzed.

Data Analysis

Descriptive and content analysis techniques were used in the research data analysis. Descriptive analysis is an analysis technique in which the obtained data are summarized and interpreted according to predetermined themes, direct quotations are frequently used to reflect the views of the interviewees strikingly, and the results are interpreted within the framework of cause-effect relationships (Yildirim & Simsek, 2005). The descriptive analysis technique was carried out within the framework of three steps (data reduction, data presentation, inference, and validation). In the selection of citations in the presentation of the data, striking (different opinion), explanatory (suitability for the theme), diversity, and extreme examples criteria were taken into account (Unver, Bumen, & Basbay, 2010). The data obtained from the forms were first transferred to the Office program, read several times, and coding was created for this. Then, descriptive and content analyzes were carried out by bringing together the codes and revealing the themes that would form the main lines of the research findings.

While analyzing the data obtained from the interviews, the descriptive analysis technique based on the deductive approach was used since there is a specific field related to distance education. According to the descriptive analysis approach, the data obtained were summarized and interpreted according to predetermined themes. Descriptive analysis consists of four stages: creating a framework for analysis, processing the data according to the thematic framework, defining the findings, and interpreting the findings (Yildirim & Simsek, 2011). In this study, these stages were followed while performing the descriptive analysis. First, a thematic framework was created for data analysis based on the interview questions prepared according to the conceptual framework. Then, the data obtained according to the thematic framework were organized into a meaningful whole.

The data organized according to the thematic framework with the descriptive analysis technique in the research were subjected to content analysis. The codes were determined by examining all the data organized according to the determined main themes, and sub-themes were formed based on these codes. The data were reviewed in detail according to the determined themes, sub-themes, and codes, and they were rearranged and described. In addition, by calculating the frequency of repetition of participant opinions (codes) under each sub-theme, each sub-theme and encodings were tabulated with frequencies and percentages. In order to clearly and fully reflect the participants' views, the findings were supported by direct quotations.

In the study, various measures were taken to ensure the reliability and validity of the data. In qualitative research, reliability is related to the consistency of research processes. In qualitative research, it is necessary to express the research questions clearly and understandably to ensure reliability, determine the role of the researcher clearly, to check the consistency between the codings, etc. such measures can be taken (Miles & Huberman, 1994). In this study, detailed explanations were made about the position of the researcher, the teaching staff who were the data source in the research, the conceptual framework used in data analysis, and all the processes followed to increase the external reliability (confirmability) of the data. To increase the internal reliability

(consistency) of the data, data analysis was carried out depending on a predetermined and detailed conceptual framework. In qualitative research, internal validity is related to the significance and credibility of the findings. In contrast, external validity is related to the transferability or suitability of the obtained findings to other situations (Miles & Huberman, 1994). In addition, the research findings are clearly presented in the form of themes, sub-themes and codes, making it possible to compare other researchers who will study the same subject.

In content analysis, consistency between coders is usually calculated to determine reliability. After the interview transcripts were written, the interview coding key was prepared based on the interview questions. To determine the reliability of the interview coding key, two participant interview transcript forms were selected and duplicated with a neutral assignment and evaluated independently by the researchers together with the interview coding key. The evaluation was made by marking the option deemed appropriate for the opinion of the interviewees in the relevant interview coding key. To determine the consistency of the markings for the interview coding key, the answers given to each question were examined and compared one by one. After this stage, the interview coding keys were given their final form.

The researchers independently read each participant's interview transcript and marked the appropriate option containing the answer to each question in the relevant interview coding key. After this process, the evaluation of the researchers was checked, the answer option given by the participant group to the related question was marked, and "appropriate" - "not appropriate" markings were made. If the researchers chose the same answer option for the relevant question, it was accepted as consensus; if they ticked different options, it was accepted as disagreement. In this study, the percentage agreement formula was used to determine the reliability of content analysis. The percentage of agreement was calculated using the formula "Confidence = Agreement / (Agreement + Disagreement) x 100" (Miles & Huberman, 1994). According to Yildirim and Simsek (2005), when the percentage of agreement is 70% in the calculation of reliability, the percentage of reliability is considered to have been reached. In the study, the percentage of agreement in the coding was made using this formula; The general agreement level was calculated as 0.86 for the first question, 0.88 for the second question, 0.94 for the third question, 0.93 for the fourth question, and 0.90 for all questions in total (Yildirim & Simsek, 2005). Rates above 70% are considered to be sufficient for the researchers' coding reliability. The determined codes were above this level of reliability and were added to the study as such. In addition, expert opinion was sought on the suitability of themes, sub-themes and codes, and opinions were received on the suitability of the analyses. The results obtained from the procedures performed were arranged in tables under the heading of findings.

For this study, the ethical decision dated 18.02.2021 and numbered 02/30 was got permission from Ataturk University Institute of Educational Sciences Social and Human Sciences Ethics Committee Educational Sciences Unit Ethics Committee.

Findings

The data obtained within the scope of the research were grouped within the scope of the organized questions. As a result of the data revealed by the answers given by the lecturers to the interview questions, the findings were gathered under four headings. The resulting findings were grouped under four main themes.

Difficulties Encountered in Planning and Implementation of Instruction

In the interviews, the lecturers were asked, "How do you evaluate the impact of increasing technology usage time in distance learning applications on you?" What are the causes of the resulting impact?". The sub-themes created according to the answers given, the codes related to their reasons, and the frequency of occurrence of these opinions were shown in Table 1.

Table 1

Difficulties Encountered in Planning and Implementation of Instruction

Theme	Sub-theme	f	%	Codes for Reasons	f
Planning Instruction and Application	Time management	13	65	Taking time to prepare for the lesson	8
				Weak relations with distance education technologies	5
				Inability to use time efficiently	2
				Too much course load	1
	Effect on motivation	5	25	Low number of students attending the course	3
				The thought that productivity is low compared to face-to-face education	2
				The sagging of works outside of working hours	1
	Impact on academic studies	1	5	Too much time devoted to online education	1

When Table 1 was examined, in line with the instructors' answers regarding the planning and implementation of the teaching; 3 sub-themes emerged: time management, effect on motivation and effect on academic studies. 65% of the lecturers interviewed reported that they had problems with time management in the distance education process. The prominent opinions regarding this sub-theme are shown below.

Taking time to prepare for the lesson

When the course became online, we realized that we needed to make more preparations for the course. It is difficult to fill the time of the lesson when it is not planned and prepared in advance. Because in face-to-face lessons, situations such as student participation and question and answer

can form an important part of the lesson. It is necessary to use different methods to make the lesson interesting when it is live.

My daily use of technology has increased considerably and took an average of 5-6 hours for reasons such as conducting research to prepare the data of the lessons, bringing them into a form that will be presented to the students, conducting the lessons, and preparing new materials that may attract the attention of the student.

I used the computer and the phone most actively in work such as preparing lecture notes, conducting various scientific research, preparing and evaluating homework, live lessons, communicating to be more interested in students during the distance education process. I think my daily use of technology is between 8-10 hours on average.

In the lecturers' opinions above, it was emphasized that the preparations for the courses made through distance education take time. It was stated that the courses should be enriched with different methods, interesting presentations, and scientific preparations in order to be more interesting for the students. More than half of the lecturers who expressed their opinions on this sub-theme; they cited the time taken to prepare for distance education courses as the reason. In addition, nearly half of those who expressed their opinions on the sub-theme of time management; they stated that their relationship with distance education technologies was weak as the reason.

Weak relations with distance education technologies

Although it is a time-consuming process at the beginning, the experience and knowledge gained as you use the system are not time-consuming and worrying for the future.

It took me some time at first, but later on, as I learned the system, I saw that things could be done easier.

As emphasized in the opinions of the lecturers above, about half of the lecturers who expressed their opinions on this sub-theme stated that they had problems due to their weak relations with distance education systems and that their problems decreased as they got used to the system and gained experience in the process. In addition, 2 instructors who expressed their opinions on the sub-theme of time management in the theme of planning and implementation of teaching stated that they could not use the time efficiently as the reason.

Inability to use time efficiently

When I started to use the system better, I could use the time more efficiently. At first, there were many times that I could not use the lesson time efficiently because of screen sharing and dealing with audio and video works during the lesson.

In the opinion of the lecturer above, it was emphasized that the inability to use time efficiently causes time management problems. 1 lecturer who expressed an opinion on this sub-theme also stated that the weekly course load was too much as a reason.

Too much course load

My computer usage rate has increased tremendously depending on the course load. There were times when I neglected all my other responsibilities while trying to complete all my lessons.

The lecturer who expressed their opinion above emphasized that the course load affected the planning and implementation of the teaching. In addition to these, it was emphasized by 20% of the interviewed participants that low motivation had an effect on the difficulties in planning and implementing teaching in distance education. 3 participants emphasized the low number of students attending the course, the thought that productivity was low compared to face-to-face education by 2 participants, and the delay of work outside working hours by 1 participant as reasons for low motivation. Participant opinions on these were given below. The opinion of one of the lecturers who gave his opinion is as follows.

Low number of students attending the course

The fact that everyone turned to online education slowed down the access, and I had difficulties in entering the system most of the time. I do not think that distance education is an effective and efficient process. The frequency of having problems in system logins and the low number of students who could participate negatively affected my motivation.

In the opinion of the lecturer above, it was stated that the problem of accessing the channels where distance education was provided and the number of students who could participate affect motivation. Below are the opinions of the participants about the comparison with face-to-face education.

The thought that productivity is low compared to face-to-face education

Systems errors and glitches caused the lesson hours to change and sometimes the lesson to be divided. I think the general problem is that the students do not fully understand the lesson. In other words, it is not an efficient classroom environment, I think face-to-face education is healthier in every aspect (discipline, attention, adaptation, efficiency)

Although online studies provide convenience in many ways, I do not think it is as efficient as one-on-one studies. I believe that it creates a weakening in personal transmission power.

The instructors' opinions, who emphasized that it was not as productive as face-to-face education with students in the classroom environment, are given above. In addition, one of the reasons was stated as follows by one of the interviewees below: educational work went beyond working hours.

The sagging of work outside of working hours

... within the scope of online studies, the notion of overtime has also somewhat disappeared. Now, our administrators sometimes expect certain jobs from us, not only between 8-5, but also in the evening, at night, or at different times. This negatively affected motivation.

The lecturer, whose opinion was given above, stated that the overflow of work outside of working hours was the reason that reduced his motivation. In addition, while 1 lecturer explained his opinion on the theme, they emphasized that their academic studies slowed down due to the time they spent on distance education.

Too much time devoted to distance education

It weakened my academic studies.

It was seen that the interviewed instructor pointed out that the time spent on distance education was more than the time allocated to formal education, causing her/him not to allocate enough time to academic studies and weakening the studies.

Difficulties Related to Technological Infrastructure Problems

In the interviews, the lecturers asked the lecturer, "How do you evaluate your experiences in problem situations encountered in distance education applications?" The codes and frequencies related to the themes, sub-themes, reasons, and frequencies created based on the answers given are shown in Table 2.

Table 2

Related to Technological Infrastructure Problems, Causes of Codes and Their Frequencies

Theme	Sub-theme	f	%	Codes for Reasons	f
Technological Infrastructure Problems	Effects on emotions	17	85	System malfunctions that occur during the course of the lesson	12
				Failure to attend the class for some students	5
				Concerns about the effectiveness of the lessons given	4
				Systemic problems before the lesson	3
	Problem solving strategies	10	50	Taking time to solve the problem, since the distance education system has not been used frequently before	4
				Taking precautions that can be taken before the lesson in order to avoid problems during the lesson	4
				Trying different distance education programs	4

When it is looked at the table above, the technological infrastructure problems caused emotional effects on 85% of the interviewed lecturers. In comparison, it prompted 50% of them to produce a solution strategy in the face of the problem. More than half of the

participants who emphasized that it affected emotions stated the distance education system malfunctions that occurred during the lesson, approximately one-third of the participants said that some students could not attend the lessons at all, and approximately one-fourth of them worried about the effectiveness of the lessons, and about one-fifth of them stated that they highlighted systemic problems as a reason before the lesson. The highlights of the participant's views emphasizing that the system malfunctions that occurred during the course affected the emotions are as follows:

System malfunctions that occur during the course of the lesson

There were technical problems during the lesson. I panicked at that moment.

...I had anxiety. I immediately tried to try to figure out how to solve the problem. After a while, the problem was not solved, I tried to handle my business with my phone as an alternative method.

It was emphasized in the participants' opinions that the technical problems that occurred during the lesson had an emotional impact on the participants for a while. The fact that some students could not attend the classes at all was stated by a participant as the reason for the sub-theme as follows.

Failure to attend classes for some students

...Some of my students could not attend the classes at all, I felt sorry for them...

...Sometimes I put myself in the students' shoes and empathized with the problems such as lack of internet, lack of devices, lack of space...

We had problems with the system from time to time, especially in the first weeks. I got worried that if there was no lesson, it would not be repeated later, or it would cause a big problem.

In the above participant opinions, it was emphasized that the inability of the students to attend the classes due to various technical deficiencies and faults created an emotional impact on the instructors. In addition, a participant's opinion stating that technological infrastructure problems affected the efficiency of the lessons is given below.

Concerns about the effectiveness of the lessons given

The fact that everyone turned to online education slowed down the access, and I had difficulties in entering the system most of the time. I do not think that distance education is an effective and efficient process.

With the above view, the participant emphasized that the technical infrastructure was not strong and reported that when there was too much demand, access slowed down and this negatively affected course efficiency. Again, the participant's view emphasizes that the technical problems experienced before the lesson affect the emotions.

Systemic problems before the lesson

While trying to set up the same virtual classroom environment with the students in the first use, system failures occurred, I panicked, I thought that how these lessons would be like this.

According to the above view, problems were experienced due to the fact that the instructors were not used to the system and the infrastructure that was not ready, and it was reported by the participant that the problems experienced affected the emotions

Table 2 shows that the effects of technological infrastructure problems on problem solving strategies are 50%. The codes that caused this effect; It was emphasized by the interviewed instructors that the distance education system was not used frequently before, spending too much time on solving the problems that may occur during the lesson, taking the precautions that could be taken before the lesson, and trying different distance education programs. About half of the participants who expressed their opinions on this sub-theme emphasized the codes related to the reasons.

Taking time to solve the problem, since the distance education system has not been used frequently before

We haven't tried the system before. That's why I struggled at first. I forgot to save it. I had a hard time opening my files. But the biggest problem was the students living mostly in rural areas without internet connection.

It would have been more convenient for us to have promotional videos explaining each feature of the system.

Our process of learning the system was time-consuming, this is a bit annoying...

It was emphasized by the lecturers whose opinions were stated above that since distance education systems were not used before, it took time to get used to the system and to solve the problems encountered. The instructors' opinions, emphasizing the precautions to be taken before beginning the lesson in order to avoid these problems in subsequent lessons, are provided below.

Taking precautions that can be taken before the lesson in order to avoid problems during the lesson

...I can say that I did not have any problems because I took precautions such as my internet connection, phone and computer charge to avoid any problems.

There was an internet interruption or the sound did not reach properly, I did the necessary tests to avoid the same problem in the next lessons, it worked.

In the participant opinions above, it was emphasized that measures were taken to avoid problems during the lesson. The opinions of the instructors who tried different distance education programs are given below as a problem solving strategy.

Trying different distance education programs

There were systemic problems that I stopped using the program for the 2nd week because it was related to the density. When the students said they could not attend the class, I tried to solve the problem by calling their contact numbers many times. I chose different programs so that the process could continue in a healthy way.

During this process, I encountered problems such as the system not turning on due to being busy, power cuts, and slowing the internet speed. In an effort to find a solution, I used mobile data instead of Wi-Fi when the internet slowed down, and I attempted to teach from a separate online application when the course platform was overloaded.

According to the lecturers' opinions above; The situation of developing a problem-solving strategy using programs with fewer infrastructure problems was emphasized.

Advantages of Distance Education

During the meeting, the question "Can you evaluate the advantages of distance education applications?" was directed to the lecturers. The codes for the themes, sub-themes, reasons and frequencies created based on the answers given are shown in Table 3.

Table 3

Advantages, Reasons, and Codes of Distance Education Applications

Theme	Sub-theme	f	%	Codes for Reasons	f
Advantages of Distance Education	Advantages for the instructor	10	50	Advances in using technology	6
				Flexible time work	5
	Advantages for the student	7	35	Continuing education in cases such as epidemics and disasters	3
				Being able to access for the students all course data (lecture notes, videos, etc.) whenever they want.	3
				Students' development in using technology	2

Looking at Table 3, 50% of the interviewed lecturers emphasized that they had advantages for themselves, while 35% emphasized that it provided an advantage to the student. More than half of the participants who stated that it benefited the lecturers cited their improved use of technology as the reason, while the other half of the participants cited flexible work hours. The prominent opinions about the developments in using technology are given below.

Advances in using technology

There are advantages such as visual advantages, online group work, online activities that can improve learning skills, and instant exam applications and the ability to measure their knowledge in a short time. Technology has greatly increased my usage time.

...I can say that the biggest advantage was to speed up my computer usage...

In their comments above, the participants emphasized that they gained an advantage as they progressed in using technology with distance education applications.

Flexible time work

Although the freedom to work in a wide and flexible time is advantageous, more technology has been associated with the system due to the systemic problems and the uncertainties that have arisen...

With the online system, education opportunities were provided in a more comfortable way than in the home environment. Physical waste of time reduced.

Participants with the above opinions emphasized that distance education applications provided an advantage as flexible working time. In addition, about half of the instructors who emphasized that distance education applications benefit students in their opinion, emphasized that education should continue in cases such as epidemics and disasters as the reason that students could access all course data (lecture notes, videos, etc.) whenever they wanted, while about one-third of them stated the students' development in using technology as the reason.

Continuing education in cases such as epidemics and disasters

...I can say that I see that there is a very good alternative, and if the necessary internet infrastructure is created, it can be used in times of disaster such as a pandemic earthquake.

Although it is a fact that face-to-face education is more logical, education continuing in this way in this epidemic period, where technology has entered our lives more, has created a good alternative for students not to stay away from classes.

In the interview notes above, the lecturers interviewed state that they think that distance education applications provided benefits to students as an alternative to face-to-face education during the current epidemic period.

Being able to access for the students all course data (lecture notes, videos, etc.) whenever they want.

It had advantages such as being able to use different visual data in online systems and contacting the student at the desired time and making a lesson or any activity.

Students can listen to the lessons again they missed or could not attend...

The lecturers with the above opinions emphasized the convenience of students' access to course data and flexible working time.

Students' development in using technology

...they have improved themselves in terms of technology for students who have not experienced victimization

According to the opinion of the lecturer above, they emphasized that students who did not lack technological infrastructure in the distance education process improved their technology usage characteristics.

Emotions Created by Technology in the Distance Education Process

The interview question was, "How do you evaluate the emotional impact of your time away from technological devices during the distance learning process?" question posed by the lecturers. The codes for the themes, sub-themes, reasons, and frequencies created within the framework of the answers given are shown in Table 4.

Table 4

Codes and Frequency of Emotions Created by Technology in the Distance Education Process

Theme	Sub-theme	f	%	Codes for Reasons	f
Emotions during the Distance Education Process	Negative	12	60	Technological problems experienced	6
				Frequent changes (such as course days and hours, materials requested to be uploaded to the system) until the system is established since it is a system that is generally used for the first time,	4
				Not having for all students equal conditions in accessing technology	2
	Notre	4	20	The problems experienced are met naturally since it is a system that is used for the first time in general,	4
				Having no problems experienced	1
	Positive	4	20	Getting acquainted with new computer programs and learning to use these programs in education	4

Looking at Table 4 above, the interviewed instructors evaluated the emotion created by technology in the distance education process as 60% negative, 20% neutral and 20% positive. Half of the lecturers who expressed their opinions on this sub-theme as the reason for forming negative emotions stated that the technological problems were

experienced. However, one third of those who expressed their opinion in this direction indicated the frequent changes made in the applications as reason and 2 people indicated the students did not have equal opportunities in terms of accessing technology as reason. The opinions of prominent lecturers who showed that the technological problems experienced had a negative effect on emotions as a reason are given below.

Technological problems experienced

I tried to use the online systems most effectively, but I encountered problems such as the internet we use at work or at home was gone, and we could not access the system at all times. I also had some problems, albeit rare, with the platform I used for education. Since not every student has equal opportunities, I had to come up with various solutions.

Systemic and internet access problems are being experienced.

In the above lecturers' opinions, it was emphasized that the problems experienced and their negative effects on emotions. In addition, the instructors' opinions who stated the deficiencies and the changes made to complete the deficiencies arising from the rapid transition to the distance education system are given below.

Frequent changes that occur until the system is installed

The constant change of systems, the absence of a standard and stable online system, and the necessity of mobile phone or computer compatible software have also brought problems.

I had a hard time getting the link. Sometimes I forgot to save the lesson. This made me feel bad, too.

Emphasizing that there are various problems in the process of applying the distance education system to the universities in general, and that they encounter various problems until they get used to the system, the participants also stated that they feel bad emotionally and that these problems disappear in the course of the process. The following is the opinion of the instructor, who emphasizes that the students did not have equal opportunities in terms of accessing technology as a reason.

Not providing all students with equal access to technology.

The online system did not provide easy access to students because not everyone had the same opportunities. I don't think it is a sufficient application for education.

It was emphasized that students participate in distance education applications only if possible. According to 20% of the participants who participated in the interview, the distance education system did not experience any change in emotion. All of the participants, who expressed their opinion in this direction, stated that they considered the problems experienced as normal due to the implementation of the system for the first time, and one participant stated that she/he did not encounter any problems.

The problems experienced that are met naturally since it is a system that is used for the first time

I feel quite normal, it doesn't make me depressed when I'm away, I continue my life from where I left off.

There may be systemic problems in online training. However, since the course will be uploaded to the system, the student can access it anytime.

In the opinions of the lecturers above, it was emphasized that the problems that could be experienced were expected, and it was stated that these situations did not cause any change in feelings. The lecturer's opinion that he did not experience any problems in distance education systems is given below.

Having no problems experienced

I did not have any problems in the process of teaching in distance education systems.

The opinion of the instructor, who stated that he did not experience any problems in the distance education process and therefore did not experience a change in emotion, is given above. In the interviews, 20% of the participants also mentioned that being in touch with technology during the distance education makes them feel positive. Regarding the reasons, they reported that they were introduced to new computer programs and used these programs for education. The highlights of the interviews are listed below.

Getting acquainted with new computer programs and learning to use these programs in education

I think I learned many things that I did not know in the distance education system and developed myself in these aspects. In order to provide the best education to students and to provide equal conditions for everyone...

During this period, I learned about the live course platforms used in distance education and how to use them. It's a good feeling, like filling a missing part.

In the comments of the instructors who stated that they felt positive emotions above, it was emphasized that the new programs learned, the education of the students even during the pandemic period, and the efforts to provide equal conditions for the students were a source of happiness.

Discussion and Conclusion

In the transition to compulsory distance education with the pandemic period, the views of the instructors were tried to be explained with four sub-themes in the previous section. In this section, the findings obtained under the headings of "planning and implementation of teaching", "technical infrastructure problems", "advantages of

distance education” and “emotions created by the distance education process” were discussed in the light of studies in the literature. Discussion and results related to each theme were handled separately, and the results were aimed to be clearer. The discussion and conclusion on each subject are as follows.

Difficulties in Planning and Implementing Instruction

In the interviews, it was concluded that the instructors related to this theme had problems with time management in the live lessons they held with distance education and could not use the time efficiently. Dincer (2006) emphasized that it was impossible to produce immediate solutions to possible problems that may be encountered and that these problems may bring new problems. In this respect, the problem of shifting the focus of time and energy may arise. Onuka (2012) stated that differences in time management ability or time management practice level affected the level of work done.

In the study, it was concluded that the student participation rate in distance education courses was low, the working hours were flexible, and the lectures were compared with formal education in terms of efficiency, which negatively affected the instructors' motivation. In the literature, a well-designed virtual classroom environment, e-content, and assessment and evaluation components were linked to success in distance education (Demir, 2014). This study supports the results obtained in the present study. In another study on distance education, the inability to communicate between teacher and student was seen as the biggest problem; in this case, the teacher's inability to communicate with the students negatively affected teacher motivation (Dincer, 2006). According to Petrenko et al. (2020), the components of the educator's readiness for distance education were motivation and value.

In addition, the excess of time allocated to live lessons with distance education negatively affected the instructors' academic works. Yilmaz and Guven (2015) emphasized that an effective result could be obtained by conducting distance education applications in a planned manner. As a result of the transition to compulsory distance education, the amount of time instructors devoted to learning and guiding students through online platforms increased. For this reason, it was stated that the time allocated to academic studies was waived. In a more planned approach, mobile learning (a sub-field of distance learning) could be used to deliver education and to communicate with students synchronously and asynchronously when access to the Internet or computers was limited (Ishmael, Heiser, & Payne, 2020). Maimela and Samuel (2016) stated that due to the fixed working hours of academicians, the lecturers spent most of their productive time developing study materials and answering student's questions daily, which undoubtedly negatively affected the time allocated for research. In another study, it was reported that integrating the systems with the software used in distance education systems, and the work and planning of solutions that can be brought to the problems that may occur, are the prerequisites for a sustainable education (Erturgut, 2008).

Technological Infrastructure Problems

Another result that stood out in the lecturers' minds was the issue with technological infrastructure. It was emphasized that there were many problems arising from the technological system failures that occurred before and during the lessons, the lack of technological infrastructure in the places where the instructors live, the fact that some students could not attend the lessons at all, and the problems that occur reduce the efficiency of the lesson. It was reported that technical problems such as sound interruption and network problems in live lessons negatively affected the instructors' perception and views (Koppelman & Vranken, 2008; Yilmaz & Guven, 2015). In the study conducted by Yilmaz et al. (2021) with pre-service teachers during the pandemic process, it was reported that problems such as not being able to participate in audio and video, limited course times, insufficient communication, low image quality due to technological infrastructure problems and distance education infrastructure problems were stated by the pre-service teachers.

In the study, it was concluded that the instructors developed problem-solving strategies by taking precautions for possible problems that might arise before the lesson, by using different distance education programs, by spending more time to learn distance education systems in detail to cope with the technological infrastructure problems, they experienced during the distance education process. It was reported that with the changes in the student profile of higher education institutions, universities using distance education and face-to-face education were more demanded by students (Akdemir, 2011). Leontyeva (2018) suggested that students were willing to learn online, but they were concerned about the university's undeveloped technological infrastructure. In a similar study, Kaya (2021) emphasized that students who had previous online course experience tended to participate less in this process. According to Jowsey et al. (2020), inadequate infrastructure in the effective use of computers and tablets led to a decline in student and teacher satisfaction.

Trying to have information about an educational practice that is in such demand today and trying to develop solution strategies for the problems that may be experienced in this regard can be considered an investment made by the instructors for the present and the future. In this context, developing pedagogical technologies to create e-courses, e-textbooks, educational tools and organize the learning process in networks is important among the preparatory and pedagogical design tasks (Titov, 2018). Teachers are expected to be competent in technology and to ensure that the infrastructure functions purposefully and effectively (Coose, 2010; Dorrian & Wache, 2009; Meyer et al., 2014). It is important to support academic staff in terms of developing the resources to be used in distance education and more effective solution proposals within the existing possibilities, as well as developing technological infrastructures.

Advantages of Distance Education

In this study, it was concluded that the distance education process provided an advantage to the instructors in terms of increasing their proficiency in using technological tools and working flexibly. It was mentioned that distance education, which could be done independently of time and place and did not prevent the individual from fulfilling his duties and responsibilities in social life, had a different reason for preference of each individual (Ilgaz & Askar, 2009; Young & Rogers, 1998). For these reasons, students and teachers saw the flexible learning and teaching process as an advantage (Sadeghi, 2019). In addition, since distance education covers both learning and earning, students can continue to make a living as well as improve their qualifications (Brown, 2017).

In addition, this study revealed that distance education offered different advantages in extraordinary times such as epidemics and disasters. These advantages were the advantages such as not disrupting the education, increasing the proficiency in the use of technology by the students, and the accessibility of the course resources. In the literature, the student-centered nature of distance education was associated with the fact that education was independent of time and space (Eygu & Karaman, 2013). In another study, it was stated that with the use of technology in education, solutions were found to some problems that could not be solved with previous applications (Odabas, 2003). Also, the main advantage is the flexibility offered by distance education (de Oliveira, Penedo, & Pereira, 2018). Considering these studies, formal education cannot be an education method that can be used in extraordinary times, and distance education systems offer a great advantage in terms of ensuring the continuity of education in such periods.

If students follow traditional learning paths, they must follow a learning program determined according to the school's curriculum (Sadeghi, 2019). However, different types of distance education allow students to adjust their learning schedule to their own convenience without following a regular learning schedule. The distance education program offers them the flexibility to choose a course even if they are far from the learning process (Brown, 2017). Nagrale (2013) stated that those who preferred distance education did not need to travel in crowded buses or trains. It was also stated that if there were a computer with an internet connection, the entire college would be in the bedroom, and students would not have to go out. It was also stated that the lessons could be followed without spending much time, money, and, more importantly, energy, and the instructors had a great advantage in this respect. In general, the advantages stated by the instructors in this study were revealed in many studies. Among them, the most important advantage for both students and lecturers is that the best thing about distance education can be learning and teaching from anywhere and anytime.

Emotions Formed in the Distance Education Process

In order to reveal the effect of the distance education process on the instructors in general, it was focused on the instructors' feelings in this regard. In this direction, it was concluded

that the problems encountered in distance education, not being used to the system, and the fact that the students did not have equal opportunities caused negative feelings in the instructors. Negative attitudes and opinions toward distance education were revealed in the literature for similar reasons (Dogan & Tatik, 2015; Yilmaz & Guven, 2015). Since the teaching was given over the internet, there was absolutely no physical contact between students and instructors. In addition, this excessive dependence on technology is the biggest disadvantage of distance education and causes negative emotions (Brown, 2017). Considering the negative emotions stated by the instructors, it can be said that negative emotions are expressed in different ways depending on the stress that occurs with the transition to compulsory distance education.

In addition, the instructors stated that they felt positive emotions because they were introduced to new education programs during the distance education process. Developing a positive perception towards distance education practices was associated with having knowledge about distance education and having experience with distance education practices (Yilmaz & Guven, 2015). In other studies, it was reported that productivity increased more when the social, pedagogical, and ethical dimensions of distance education were considered, as well as the technological dimension such as e-contents and simulations created for distance education applications (Balaban, 2012; Demir, 2014; Erturgut, 2008). Based on these results, it can be said that it is important to solve the technological infrastructure to use distance education processes more effectively.

Suggestions

In the current situation, it is important to provide more support for the completion of the knowledge and education of the instructors and to make the students more active in these processes. Online learning materials can be developed to ensure active participation of students. By increasing the participation of the students, the satisfaction and motivation levels of the instructors and students can be increased. Given the results, it is possible to recommend that all academics receive in-service training on distance education practices in universities.. Considering the increasing usage rates day by day, to avoid problems in technological access, it can be recommended to make weekly distance education course distributions so that different activities can be done to strengthen the infrastructure and prevent addiction. Technical support should be increased to eliminate the problems experienced by the instructors in planning and execution. It can be recommended to ensure the integration of student information systems and distance education used by universities and to strengthen them, if provided. It is important to strengthen these aspects regarding the advantages and positive feelings towards distance education.

Research on the distance education process can be put forward with different methods, and the situations experienced by the instructors on this subject can be discussed in more detail. In addition, studies can be conducted to compare the views of students and teachers on distance education applications. Comparisons can be made with studies on



the situations occurring in other education levels where compulsory distance education is applied.

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References

- Akdemir, O. (2011). Yuksekogretimimizde uzaktan egitim. *Yuksekogretim ve Bilim Dergisi*, 1(2), 69-71.
- Balaban, E. (2012). Dunyada ve Turkiye’de uzaktan egitim ve bir proje onerisi. Istanbul: Isik Universitesi.
- Bao, W. (2020). COVID- 19 and online teaching in higher education: A case study of Peking University. *Human Behavior and Emerging Technologies*, 2(2), 113-115.
- Bian, M. & Leung, L. (2015). Linking loneliness, shyness, smartphone addiction symptoms, and patterns of smartphone use to social capital. *Social Science Computer Review*, 33(1), 61-79.
- Brown, C. (2017). Advantages and disadvantages of distance learning. Retrieved From. Erisim: <https://www.eztalks.com/elearning/advantages-and-disadvantages-of-distance-learning.html>
- Cengizhan, C. (2005). Ogrencilerin bilgisayar ve internet kullanımında yeni bir boyut: İnternet bağımlılığı, M.U. Atatürk Eğitim Fakültesi Eğitim Bilimleri Dergisi, Yıl: 2005, Sayı 22, 83-98
- Choi, S. W., Kim, D. J., Choi, J. S., Ahn, H., Choi, E. J., Song, W. Y., Kim, S. & Youn, H. (2015). Comparison of risk and protective factors associated with smartphone addiction and Internet addiction, *Journal of Behavioral Addictions*, 4(4), 308-314.
- Cohen, L., Manion, L., & Morrison, K. (2017). *Research Methods in Education*. Routledge.
- Coose, C. S. (2010). Distance nursing education in Alaska: A longitudinal study. *Nursing Education Perspectives*, 31(2), 93-96.
- Cam, E. ve Isbulan, O. (2012). A new addiction for teacher candidates: Social networks. *Turkish Online Journal of Educational Technology-TOJET*, 11(3), 14-19.
- Cavus, S., Ayhan, B., & Tuncer, M. (2016). Bilgisayar oyunları ve bağımlılık: Üniversite öğrencileri üzerine bir alan araştırması. *İletişim Kuram ve Araştırma Dergisi*, (43). 266-289
- Cini, Y. N. Teknoloji Bağımlılığının Sebepleri Üzerine Bir Roman Analizi: “Postayla Gelen Deniz Kabuğu”. *Akademik Tarih ve Düşünce Dergisi*, 6(2), 754-775.
- de Oliveira, M. M. S., Penedo, A. S. T. & Pereira, V. S. (2018). Distance education: advantages and disadvantages of the point of view of education and society. *Dialogia*, (29), 139-152.
- Demir, E. (2014). Uzaktan Egitime Genel Bir Bakış. *Dumlupınar University Journal of Social Science. Dumlupınar Üniversitesi Sosyal Bilimler Dergisi*, (39).
- Demir, S. & Karakus, M. (2015). Etik iklim ile öğretmen ve öğrencilerin güven ve motivasyon düzeyleri arasındaki ilişki. *Kuram ve Uygulamada Eğitim Yönetimi Dergisi*, 21(2), 183-212.
- Demirer, V., Bozoglan & B., Sahin, I. (2013). Preservice teachers’ Internet addiction in terms of gender, Internet access, loneliness and life satisfaction. *International Journal of Education in Mathematics, Science and Technology*, 1(1), 56-63.
- Dinc, M. (2015). Teknoloji bağımlılığı ve gençlik. *Gençlik Araştırmaları Dergisi*, 3(3), 31-65.
- Dogan, S. & Tatlı, R. S. (2015). Marmara üniversitesi’ ndeki uzaktan eğitim uygulamasının öğrenci görüşleriyle değerlendirilmesi. *Route Educational and Social Science Journal*, 2(1), 247-261.
- Dorrian, J., & Wache, D. (2009). Introduction of an online approach to flexible learning for on-campus and distance education students: Lessons learned and ways forward. *Nurse Education Today*, 29(2), 157-167.
- Elhai, J. D., Dvorak, R. D., Levine, J. C. & Hall, B. J. (2017). Problematic smartphone use: A conceptual overview and systematic review of relations with anxiety and depression psychopathology. *Journal of affective disorders*, 207, 251-259.
- Elhai, J. D., Levine, J. C., Dvorak, R. D. & Hall, B. J. (2017). Non-social features of smartphone use are most related to depression, anxiety and problematic smartphone use. *Computers in Human Behavior*, 69, 75-82.
- Ertugut, R. (2008). İnternet Temelli Uzaktan Eğitimin Orsütsel, Sosyal, Pedagojik ve Teknolojik Bileşenleri. *International Journal of Informatics Technologies*, 1(2).
- Eygu, H. ve Karaman, S. (2013). A study on the satisfaction perceptions of the distance education students. *Kirikkale University Journal of Social Sciences*, 3(1), 36-59.
- Gök, B. (2011). Uzaktan eğitimde görev alan öğretim elemanlarının uzaktan eğitim algısı. *Yayımlanmamış Yüksek Lisans Tezi, Gazi Üniversitesi, Bilisim Enstitüsü*.
- Griffiths, M. (2000). Internet addiction-time to be taken seriously?. *Addiction Research*, 8(5), 413-418.

- Gunuc, S. & Kayri, M. (2010). Turkiye’de internet bagimlilik profili ve internet bagimlilik olcegini geliştirilmesi: Gecerlik-guvenirlilik calismasi. Hacettepe Universitesi Egitim Fakultesi Dergisi, 39(39), 220-232.
- Hall, J., Roman, C., Jovel-Arias, C. & Young, C. (2020). Pre-service teachers examine digital equity amidst schools’ COVID-19 responses. *Journal of Technology & Teacher Education*, 28(2), 435–442.
- Haug, S., Castro, R. P., Kwon, M., Filler, A., Kowatsch, T. & Schaub, M. P. (2015). Smartphone use and smartphone addiction among young people in Switzerland. *Journal of behavioral addictions*, 4(4), 299-307.
- Hawi, N. S. & Samaha, M. (2016). To excel or not to excel: Strong evidence on the adverse effect of smartphone addiction on academic performance. *Computers ve Education*, 98, 81-89.
- Hebebcı, M. T., Bertiz, Y. & Alan, S. (2020). Investigation of views of students and teachers on distance education practices during the Coronavirus (COVID-19) Pandemic. *International Journal of Technology in Education and Science (IJTES)*, 4(4), 267-282.
- Ilgaz, H. & Askar, P. (2009). Cevrimici uzaktan egitim ortaminda topluluk hissi olcegi gelistirme calismasi. *Turkish Journal of Computer and Mathematics Education*, 1(1), 27-35.
- Isık, U. (2007), *Medya Bagimliliği Teorisi Dogrultusunda İnternet Kullaniminin Etkileri ve İnternet Bagimliliği*, Doktora Tezi, Konya
- İsman, A., *Uzaktan egitim*, Pegem Yayıncılık, 4.Baskı, 2011
- Ishmael, K., Heiser, R. & Payne, J. (2020). Pandemic planning for distance learning: Scenarios and Considerations for PreK-12 Education Leaders. New America.
- Jeong, S. H., Kim, H., Yum, J. Y. & Hwang, Y. (2016). What type of content are smartphone users addicted to?: SNS vs. games. *Computers in Human Behavior*, 54, 10-17.
- Jowsey, T., Foster, G., Cooper-loelu, P. & Jacobs, S. (2020). Blended learning via distance in pre-registration nursing education: A scoping review. *Nurse Education in Practice*, 44, 102775.
- Kaden, U. (2020). COVID-19 school closure-related changes to the professional life of a K–12 teacher. *Education Sciences*, 10(6), 165. <https://doi.org/10.3390/educsci10060165>
- Karadag, E. ve Kilic, B. (2019). Ogretmen goruslerine gore ogrenciler arasinda teknoloji bagimliliği. *Psikiyatride Guncel Yaklasimlar*, 11, 101-117.
- Karaman, K. ve Kurtoglu, M. (2009). Ogretmen adaylarinin internet bagimliliği hakkındaki gorusleri. *Akademik Bilisim, Sanliurfa*, 641-650
- Kaya, S. (2020). *Uzaktan egitimde basarinin onkosullari*. Ankara: Ani Yayıncılık.
- Kaya, S. (2021). The factors predicting students' participation in online english courses. *Eurasian Journal of Educational Research*, 91, 301-320.
- Kızılok, G. E. & Ozok, H. I. (2021). Teachers’ views on stress and internet addiction due to cultural differences. *Participatory Educational Research*, 8(3), 441-467. <http://dx.doi.org/10.17275/per.21.75.8.3>
- Koppelman, H. & Vranken, H. (2008). Experiences with a synchronous virtual classroom in distance education. *ACM SIGCSE Bulletin*, 40(3), 194-198.
- Kucukvardar, M. & Tingoy, O. (2018). Teknoloji bagimliliginin semptomlar temelinde incelenmesi. *İletisim ve Bilisim Teknolojileri*, 9(35), 111-123
- Kwon, M., Kim, D. J., Cho, H. & Yang, S. (2013). The smartphone addiction scale: development and validation of a short version for adolescents. *Plus One*, 8(12).
- Leontyeva, I. A. (2018). Modern distance learning technologies in higher education: Introduction problems. *Eurasia Journal of Mathematics, Science and Technology Education*, 14(10), em1578.
- Lin, Y. H., Lin, Y. C., Lee, Y. H., Lin, P. H., Lin, S. H., Chang, L. R., Tseng, H., Yen, L. Y., Yang, Y. H. & Kuo, T. B. (2015). Time distortion associated with smartphone addiction: Identifying smartphone addiction via a mobile application (App). *Journal of Psychiatric Research*, 65, 139-145.
- Lin, Y. H., Chang, L. R., Lee, Y. H., Tseng, H. W., Kuo, T. B. & Chen, S. H. (2014). Development and validation of the smartphone addiction inventory (SPAI). *Plus One*, 9(6).
- Lynch, M. (2020). E-learning during a global pandemic. *Asian Journal of Distance Education*, 15(1), 189-195. <https://doi.org/10.1177/1540796916683710>
- Maimela, E. M. & Samuel, M. O. (2016). Perception of performance management system by academic staff in an open distance learning higher education environment. *SA Journal of Human Resource Management*, 14(1), 1-11.

- Meyer, S., Wohlers, S. & Marshall, B. (2014). Blended learning: student experiences. *Rhetoric and Reality: Critical Perspectives on Educational Technology*, 89-98.
- Miles, M. B. & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. sage.
- Nagrle, P. (2013). Advantages and disadvantages of distance education. SureJob. Available online: <https://surejob.in/advantages-anddisadvantages-of-distance-education.html>. (19 Eylül 2020de erisildi).
- Odabas, H. (2003). İnternet tabanlı uzaktan eğitim ve bilgi ve belge yönetimi. *Türk Kutuphaneciliği*, 17(1), 22-36.
- Odacı, H. & Celik, C. B. (2016). Does internet dependence affect young people's psycho-social status? Intrafamilial and social relations, impulse control, coping ability and body image. *Computers in Human Behavior*, 57, 343-347.
- Onuka, A. O. (2012). Distance learners' time management and learning effectiveness. *Time Management*, 77-88.
- Ozgen, K., Narli, S. & Alkan, H., Matematik öğretmen adaylarının teknolojik pedagojik alan bilgileri ve teknoloji kullanım sıklığı algılarının incelenmesi, *Electronic Journal of Social Sciences* ISSN:1304-0278, Kis-2013 Cilt:12 Sayı:44 (031-051)
- Ozgun, H. (2013). Analyzing the relationship between social networking addiction, interaction anxiousness and levels of loneliness of pre-service teachers Öğretmen adaylarının sosyal ağ bağımlılığı, etkileşim kaygısı ve yalnızlık düzeyi arasındaki ilişkinin incelenmesi. *Journal of Human Sciences*, 10(2), 667-690.
- Ozok, H. I. ve Aka, P. (2021). Pandemi nedeniyle evde kalan genç yetişkinlerin bilinçli farkındalık ve stres kontrolü ile ilgili görüşleri. *Turkish Studies- Education*, 16(2), 1087-1104. <https://dx.doi.org/10.47423/TurkishStudies.48264>
- Panova, T. & Carbonell, X. (2018). Is smartphone addiction really an addiction? *Journal of Behavioral Addictions*, 7(2), 252-259.
- Patton, M. Q. (1987). *How to use qualitative methods in evaluation* (No. 4). Sage.
- Petrenko, L., Kravets, S., Bazeliuk, O., Maiboroda, L., & Muzyka, I. (2020). Analysis of the current state of distance learning in the vocational education and training institutions. In *E3S Web of Conferences* (Vol. 166, p. 10010). EDP Sciences.
- Sadeghi, M. (2019). A shift from classroom to distance learning: advantages and limitations. *International Journal of Research in English Education*, 4(1), 80-88.
- Samaha, M. & Hawi, N. S. (2016). Relationships among smartphone addiction, stress, academic performance, and satisfaction with life. *Computers in Human Behavior*, 57, 321-325.
- Savci, M. ve Aysan, F. (2017). Teknolojik bağımlılıklar ve sosyal bağlılık: İnternet bağımlılığı, sosyal medya bağımlılığı, dijital oyun bağımlılığı ve akıllı telefon bağımlılığının sosyal bağlılığı yordayıcı etkisi. *Düşünen Adam*, 30(3), 202-216.
- Shaw, M. ve Black, DW (2008). İnternet bağımlılığı. *CNS ilaçları*, 22 (5), 353-365.
- Song, I., Larose, R., Eastin, M. S. & Lin, C. A. (2004). Internet gratifications and Internet addiction: On the uses and abuses of new media. *Cyberpsychology and Behavior*, 7(4), 384-394.
- Sozibilir, A. (2019), Açık hava etkinliklerinin dijital bağımlılık düzeyine etkisinin incelenmesi, Yüksek Lisans Tezi, İstanbul
- Sahin, M. C. ve Tekdal, M. (2005). İnternet tabanlı uzaktan eğitimin etkililiği: Bir meta-analiz çalışması. *Akademik Bilisim*, 02-04.
- Sen, B., Atasoy, F. ve Aydın, N. (2010). Düşük maliyetli web tabanlı uzaktan eğitim sistemi uygulaması. *Akademik Bilisim*, 10-12.
- Tanhan, F. & Ozok, H.İ. (2020). Pandemi ve Eğitim. Ankara: Ani Yayıncılık. (ss. 145-158).
- Titov, V. (2018). Distance learning of public and municipal officials in the russian federation: needs and development problems. In *Proceedings of the International Management Conference* (Vol. 12, No. 1, pp. 322-326). Faculty of Management, Academy of Economic Studies, Bucharest, Romania.
- Toker Gokce, A. (2008). Küreselleşme sürecinde uzaktan eğitim. *Dicle Üniversitesi Ziya Gökalp Eğitim Fakültesi Dergisi*, (11), 1-12.
- TÜİK. (2019). [https://data.tuik.gov.tr/Bulten/Index?p=Hanehalki-Bilisim-Teknolojileri-\(BT\)-Kullanim-Arastirmasi-2019-30574](https://data.tuik.gov.tr/Bulten/Index?p=Hanehalki-Bilisim-Teknolojileri-(BT)-Kullanim-Arastirmasi-2019-30574). Retrieved 25.03. from

- TÜİK. (2021). [https://data.tuik.gov.tr/Bulten/Index?p=Hanehalki-Bilisim-Teknolojileri-\(BT\)-Kullanim-Arastirmasi-2021-37437](https://data.tuik.gov.tr/Bulten/Index?p=Hanehalki-Bilisim-Teknolojileri-(BT)-Kullanim-Arastirmasi-2021-37437). Retrieved 15.03. from
- Tuncer, M. ve Tanas, R. (2011). Akademisyenlerin Uzaktan Egitim Programlarına Yonelik Goruslerinin Degerlendirilmesi (Firat ve Tunceli Universiteleri Ornegi). *İlkogretim Online*, 10(2).
- Turel, O., Serenko, A. ve Giles, P. (2011). Teknoloji bagimliliği ve kullanimini entegre etme: Cevrimici acik artirma kullanicilarinin ampirik bir arastirmasi. *MIS Uc Ayda Bir*, 1043-1061.
- Ulusoy, K. (2017). Tarih ogretmenlerinin madde bagimliliği ve medya bagimliliği ile ilgili dusunceleri. *Kastamonu Education Journal*, 25(1), 385-400
- Usta, N. D., Durukan, U. G. ve Hacioglu, Y. (2016). Bilgisayar ve ogretim teknolojileri ogretmeni adaylarinin "teknoloji" algilari. *Journal of Computer and Education Research*, 4(7), 24-46.
- Unver, G., Bumen, N. T. ve Basbay, M. (2010). Ortaogretim alan ogretmenligi tezsiz yuksek lisans derslerine ogretim elemani bakisi: Ege Universitesi ornegi. *Egitim ve Bilim*, 35(155).
- Weinstein, A. & Lejoyeux, M. (2010). Internet addiction or excessive internet use. *The American Journal of Drug and Alcohol Abuse*, 36(5), 277-283.
- Whang, L. S. M., Lee, S. & Chang, G. (2003). Internet over-users' psychological profiles: a behavior sampling analysis on internet addiction. *Cyberpsychology and Behavior*, 6(2), 143-150.
- Widyanto, L. & Griffiths, M. (2006). 'İnternet bagimliliği': elestirel bir inceleme. *Uluslararası Ruh Sagligi ve Bagimlilik Dergisi*, 4 (1), 31-51.
- Williams, T.K., McIntosh, R.W. & Russell, W.B. (2021). Equity in distance education during COVID-19. *Research in Social Sciences and Technology*, 6(1), 1-24. <https://doi.org/10.46303/ressat.2021.1>
- Yavuz, S. ve Coskun, E. A. (2008). Sinif ogretmenligi ogrencilerinin egitimde teknoloji kullanimina iliskin tutum ve dusunceleri. *Hacettepe Universitesi Egitim Fakultesi Dergisi*, 34(34), 276-286.
- Yellowlees, P. M. & Marks, S. (2007). Problematic internet use or internet addiction?. *Computers in Human Behavior*, 23(3), 1447-1453.
- Yildirim, A. ve Simsek, H. (2005). Sosyal bilimlerde nitel arastirma yontemleri. Ankara: Seckin Yayıncılık.
- Yildirim, A. ve Simsek, H. (2011). Sosyal bilimlerde nitel arastirma yontemleri (8.baski). Seckin Yayıncılık. Ankara
- Yilmaz, G. K. ve Guven, B. (2015). Ogretmen adaylarinin uzaktan egitime yonelik algilarinin metaforlar yoluyla belirlenmesi. *Turkish Journal of Computer and Mathematics Education*, 6(2), 299-322.
- Yilmaz, H., Sakarya, G., Gayretli, S. ve Zahal, O. (2021). Covid-19 ve cevrimici muzik egitimi: okul oncesi ogretmen adaylarinin gorusleri uzerine nitel bir calisma. *Journal of Qualitative Research in Education*, 28, 283-299. doi: 10.14689/enad.28.12
- Yilmaz, M., Uredi, L. ve Akbasli, S., (2015). Sinif ogretmeni adaylarinin bilgisayar yeterlilik duzeylerinin ve egitimde teknoloji kullanimina yonelik algilarinin belirlenmesi. *Uluslararası Beseri Bilimler ve Egitim Dergisi*, 1(1), 105-121.
- Yilmaz İnce, E., Kabul, A. ve Diler, İ. (2020). Distance education in higher education in the COVID-19 pandemic process: A case of Isparta Applied Sciences University. *International Journal of Technology in Education and Science (IJTES)*, 4(4), 343-351.
- Yilmazsoy, B. ve Kahraman, M. (2017). Uzaktan egitim ogrencilerinin internet bagimlilik duzeylerinin incelenmesi. *Acik ogretim Uygulamaları ve Arastirmaları Dergisi*, 3(4), 9-29.
- Young, K. S. (1998). İnternet bagimliliği: Yeni bir klinik bozuklugun ortaya cikmasi. *Siber Psikoloji ve Davranis*, 1 (3), 237-244.
- Young, KS & Rodgers, RC (1998). İnternet bagimliliği: Gelisimi ile iliskili kisilik ozellikleri, *Dogu Psikoloji Dernegi'nin 69. yillik toplantısında sunulan bildiri*, *CyberPsychology ve Behaviour*, 1 (1), 25-28
- Young, K. S. (1999). Internet addiction: Evaluation and treatment. *Student. BMJ ; London Vol. 7, (Oct 1999)*.
- Young, K. S. (1999). Internet addiction: symptoms, evaluation and treatment. *Innovations in clinical practice: A source book*, 17(17), 351-352.
- Young, KS (2004). İnternet bagimliliği: Yeni bir klinik fenomen ve sonuclari. *Amerikalı davranis bilimci*, 48 (4), 402-415.
- Young, K. (2009). Internet addiction: diagnosis and treatment considerations. *Journal of Contemporary Psychotherapy*, 39(4), 241-246.



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