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Problems Encountered by Distance Education Staff in the Emergency Distance Education Process

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Abstract

With the effect of the COVID-19 virus, which emerged at the end of 2019 and caused a pandemic in the world, education has experienced a significant interruption and the world has embarked on a quest for alternatives for educational practices. Distance education, where the learner and the teacher can perform education by being in different places, has reached the forefront with its applicability to pandemic conditions and has increased its importance. As a result of these developments, the concept of emergency distance education, which is a temporary transfer of face-to-face education to technological environments, has emerged and has been put into practice. Educational institutions, which had to start distance education practices in a very short time, experienced various problems due to student density and limited time. It is considered important in order to reveal the experiences of distance education staff who are directly faced with these problems, to offer solutions to the problems and to be prepared for extraordinary situations that may occur later. The purpose of this study is to identify the problems experienced by the staff of the distance education center (DEC) in the distance education applications carried out during the pandemic and to make suggestions for the solution of these problems. In line with this purpose, focus group interviews were conducted with a total of eight personnel, three of whom were administrative, four of whom were academic and one of whom was technical, working in different positions at the distance education center of a university. The sample was determined in accordance with the convenience sampling. The data obtained in the study using phenomenology, which is one of the qualitative research designs, were analysed by content analysis method. As a result of the study, it was determined that the problems experienced by DEC staff in this process were grouped under four categories as student-centred, instructor-centred, system-centred, and other problems, and solution suggestions were presented within the framework of these problems.

Key words: distance education, COVID-19, DEC staff, pandemic

Introduction

The concept of distance education is an educational application that has been utilised in conjunction with, or instead of, face-to-face education for many years. Distance education was originally introduced as a concept in the 19th century at the University of Wisconsin, and it was only in the 20th century that it was used in its current sense (Adıyaman, 2002). Distance education, defined as the process of a learner's and a teacher's continuing educational activities and teaching independent of physical spaces (Akdemir, 2011), has undergone several changes with advancements in time. Besides conceptual and technological advancements, factors such as epidemics, earthquakes, and population growth have considerably contributed to the change of distance education. Depending on the spirit of the period, the rational use of resources and the concept of sustainability in this context are important. By using their own resources rationally, individuals have to realize both protecting the existing materials and respecting the possibility of future generations to use the resources require acting in a sharing manner – because sustainability is sharing the present with our future and giving the future generations the guarantee of tomorrow.

In terms of sustainability, education is getting more and more important day by day (Zygmunt, 2016a; Heasly & Iliško, 2021). The indispensable condition of sustainability is the holistic development of the individual, which is accepted as the basic element of the social field of sustainability (Zygmunt, 2016b). The holistic development of the individual depends on the quality of the education to be offered to the student and the compatibility of the education to be offered with the characteristics of the period. It is necessary for countries to implement sustainable education policies depending on the principle of lifelong learning (Yazıcı, Ay, Uslu, & Arık, 2021). As it is known, the COVID-19 epidemic, which shook the world deeply, has caused countries and educational institutions to question the services they provide. Because, as Šapale, Iliško and Badjanova (2021) stated, the pandemic has intensified the existing difficulties in society and added complexity to the transition processes of education systems to digitalization.

The COVID-19 virus, which is claimed to have first appeared in China's Wuhan City at the end of 2019 and spread around the world by 2020, has begun to pose serious threats especially to health as well as education, the economy, and social life on the global scale (WHO, 2020). More than 1.5 billion students in many countries were directly affected by the virus, and their education was disrupted as a result of the spread of the virus (UNESCO, 2020). The entire globe has been looking for various alternatives to assure the sustainability of education. Distance education (Arat & Balkan, 2014) has become the most significant option for maintaining education continuity in pandemic circumstances with its ability to make the education setting independent. Prior to the COVID-19 pandemic, the distance education process was looking for answers to questions: which teaching management system will be utilised for distance education; what type of teaching designs will be employed for which educational sub-discipline; how will distance education be delivered (synchronous-asynchronous); when will the concurrent activities be planned; and what is the level of multimedia adequacy of the contents (Demir, 2014; Iliško et al., 2021). This circumstance is far from realistic in the distance education practices during the pandemic. New concepts have emerged as a result of the inability to do planning and the rise of the need for distance education in a relatively short period of time. One of these concepts is emergency distance education, which

provides interim remedies to maintain face-to-face education during the crisis by using distance education solutions (Hodges, Moore, Lockee, Trust, & Bond, 2020). The concept of social sustainability encompasses topics such as equity, community, diversity, human rights, social justice and social responsibility (Knif & Kairavuori, 2020). Distance education studies/emergency distance education studies carried out during the Covid 19 period can be perceived as both a part of social sustainability and one of the most important aspects that enable individuals to adapt to the new normal.

Upon the spread of the COVID-19 pandemic, universities that were intended to provide formal education transferred their face-to-face education actvities to web-based settings and began emergency distance education applications (Lau, Yang, & Dasgupta, 2020). This has produced a lot of issues for distance education units, which have to serve many more students than they can handle. It is considered necessary to disclose the experiences of distance education staff who encounter directly with these problems, to provide solutions to the problems and to be prepared for recurrent crisis scenarios. The aim of this study is to put forth the difficulties experienced by the staff of the distance education centre (DEC) in emergency distance education applications during the COVID-19 pandemic and offer solutions to these problems.

Methodology

The phenomenology design was employed in this study, which was conducted in accordance with the qualitative research method. Phenomenology is a qualitative research design that focuses on issues that we are aware of, but do not have in-depth knowledge of, and aims to identify trends related to these issues (Yıldırım and Şimşek, 2016). In this context, it was attempted to determine the perceptions of DEC staff, who constituted the sample of the study, on the problems encountered in the workplace during the pandemic.

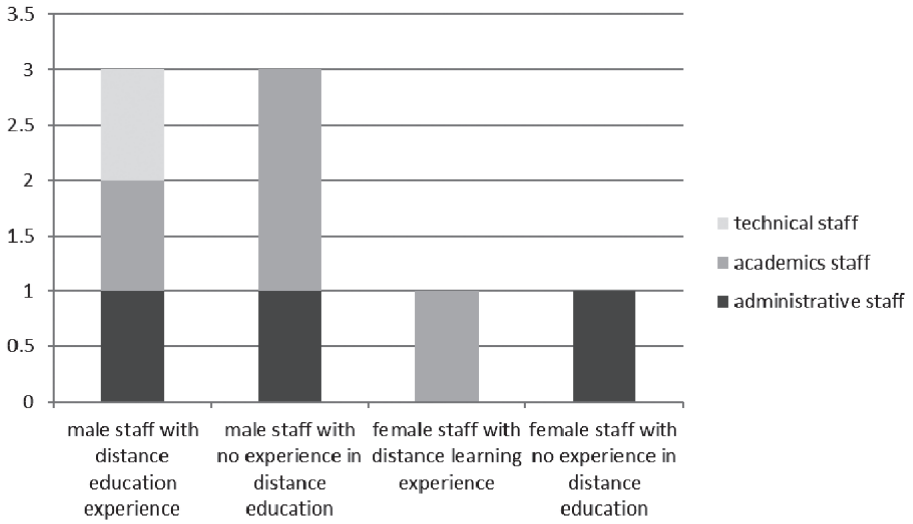
Sample Group

The sample of the study consisted of eight participants: three administrative, four academic and one technical staff, working at DEC at a state university in Turkey. The sample group that was selected according to the convenience sampling was divided into two groups: those who had had experience with distance education before the pandemic and those who had not. Analyses were carried out based on these two groups. Figure 1 shows information on the sample.

When examining Figure 1, it was observed that the sample included two academics, one administrative, and one technical staff who were experienced in distance education prior to the pandemic, as well as two academics and two administrative staff when examining the staff who had no experience on distance education before the pandemic.

Figure 1

The Sample



Data Collection and Analysis

The data were collected through focus group interview, prioritizing intra-group interaction. The focus group interview is the technique of interview that aims to acquire high-quality data by allowing members of a group to express their thoughts without being dependent and interacting with the opinions of other individuals (Patton, 2002). The stages of disclosing the objective, generating the focus group interview questions, determining the technology and location, making a pilot trial of the interview, selecting the participants, conducting the study, and organising and analysing the data were all taken into consideration during the focus group interview (Krueger & Casey, 2000; Patton, 2002).

In focus group interviews, it is recommended that the number of research questions is limited to three to four, with the possibility of adding further questions throughout the interview (Yıldırım & Şimşek, 2016). In this context, a four-question semi-structured form was prepared to be utilised throughout the interview, and the quantity and diversity of questions were increased during the interviews. A place was determined where participants could sit around a round table and have a high level of interaction while paying attention to social distance in relation to physical opportunities and pandemic conditions, and the focus group interview was recorded using a voice recorder. Eight DEC staff members were determined and invited to participate in the interview using convenience sampling. The ideal number of participants to be preferred in focus group interviews is recommended to be between six and eight (Yıldırım & Şimşek, 2016). It was mentioned that the participants' identities would be kept confidential and the expressions they used during the interview would be used verbatim. Following the interview, the data that were collected with the recording device was transcribed and analysed by employing the content analysis method by two researchers. Content analysis is a analysis technique that is employed for systematically separating, comparing, and interpreting data acquired from multiple sources (Yıldırım & Şimşek, 2016).

Findings and Comments

This section mentioned analysis of the data acquired as a consequence of the research, as well as the related findings. The opinions expressed as a result of the focus group interview were tabulated under four different main themes, and frequency information was given depending on how frequently they were utilised. These main themes were identified as student-centred, instructor-centred, system-centred problems and other problems. While presenting the findings, direct citations are presented. The sentence started with "M" for male participants and "F" for female participants.

Student-Centred Problems

Table 1 shows the problems DEC staff encountered due to students.

Table 1

The Student-centred Problems of DEC Staff

		Student-centred problems		
		Those with DE experience (f)	Those with no DE experience (f)	Total (f)
1	Lack of technical skills	4	4	8
2	Technical/Economic difficulty	4	4	8
3	Communication problem	4	4	8
4	Technical problems	4	4	8
5	Adaptation problem	4	3	7
6	Chaos and ambiguity	4	3	7
7	Lack of interest	4	3	7
8	Orientation problem	4	2	6
9	Anxiety	4	2	6
10	Misleading statement	2	3	5
11	International students	2	1	3

When looking at Table 1, the category of student-centred problems contained 11 distinct codes. According to their frequency of repetition, these codes were listed as *lack of technical skill, technical/economic difficulty, communication problem, technical problems, adaptation problem, chaos and ambiguity, lack of interest, orientation problem, anxiety, misleading statement, and international students*. While DEC staff mentioned the problems raised by students, they mostly stated that the students lacked technical knowledge, they had technical and economic difficulties, they had communication issues with the instructors and the process during the pandemic, and the students had hardware issues with the devices they were connectting to the system. M-1, a staff member who claimed that the students lacked technical knowledge, used the following statements: *"The continual demand for assistance from the distance education centre by students having troubles in technology literacy in order to use the distance education (DE) system produced an excessive workload." "The students who do not have a tablet and computer want to access the DE system by phone and apply to the distance education centre resulting from having problems with their mobile devices,"* said another staff member M-4, referring to the technical/economic difficulties faced by the students.

Another staff member, M-2, commented on the communication problem, saying, *"The students regard the DE centre as the authority where they can obtain information on any issue as a result of the sudden emergence of the pandemic, therefore we were compelled to address to a huge number of students"*. Another staff member, F-3, added *"The hardware issues that the students had when connecting to the DE system caused considerable disruptions in the process, and it was extremely exhausting for us to seek to find remedies to these problems"* and underlined technical problems. Another staff member, M-5, emphasised the problems experienced by students in adaptation to distance education, by saying *"Students wanted to attend their classes while adhering to all of the rules of face-to-face education; this brought some challenges, and it took some time to get used to it"* and he stressed the incompatibilities faced by students in distance education due to the unusual transition of face-to-face education to distance education. Saying *"The distance education centre comes to mind as the unit to be resorted to in all problems experienced in the chaos that has erupted with the pandemic, leading DEC staff to be overwhelmed,"* another staff member, M-3, alluded to the problems caused by the chaos and ambiguity atmosphere. Another staff member, M-1, who discussed the students' lack of interest, and how it had an impact on DEC indicated, *"The failure of the students to follow the published announcements and training videos presented problems in the process, and the DEC staff was once again in charge of resolving these issues." "The fact that the pandemic lasted for more than a year made it difficult for new university students to adapt." "This necessitated a reorientation programme for the first-year students,"* noted by the same staff. Another staff member, F-1, mentioned about the situation induced by the anxiety and stated, *"The students who are in critical stages, such as senior students, could not see the process clearly and they were anxious about the exams, which reflected adversely on the DEC staff."* Furthermore, a staff member, F-2, who remarked on the matter of students making misleading statements noticed another problem, *"Students might claim that they knocked down from the exams despite the fact that there were no systematic errors; this circumstance made it difficult for a small number of DEC staff to verify these statements."* Speaking of international students' problems, which are one of the least common problems in this category, a staff member M-5, stated, *"International students were more affected by this chaos, and DEC staff had to pay particular attention to these students."*

Instructor-centred Problems

Table 2 shows the problems that DEC staff encountered resulting from instructors.

When looking at Table 2, the category of instructor-centred problems contained nine distinct codes. According to their frequency of repetition, these codes were listed *as technopedagogical incompetency, lack of material, communication problem, lack of interest, chaos and ambiguity, need for LMS training, incorrect DE perceptions, requests beyond system competencies, and exam safety concerns*. The most often highlighted instructor-centred problems were *technopedagogical incompetency, lack of material, communication problem, lack of interest, and chaos and ambiguity*. A DEC staff member, M-4, stressed the technopedagogical insufficiency by stating, *"The inadequacy of the minimal abilities of the instructors to utilise technology for their own field caused a significant chaos by asking additional support from DEC."* Another issue was highlighted by M-2, who stated, *"The rapid transition to distance education with the pandemic*

prompted the instructors to seek assistance in producing materials, and support was requested from the DEC personnel at this time." another staff member, M-1, underlining the communication problems said *"The instructors, who were having difficulty in establishing an intimate connection with their students, wished to communicate with the students through the distance education, which allowed the DEC staff to spend their time more limited; otherwise it would possibly be more efficient."*

Table 2

The Instructor-centred Problems of DEC Staff

		Instructor-centred problems		
		Those with DE experience (f)	Those with no DE experience (f)	Total (f)
1	Techno-pedagogical incompetency	4	4	8
2	Lack of materials	4	4	8
3	Communication problem	4	4	8
4	Lack of interest	4	4	8
5	Chaos and ambiguity	4	4	8
6	Need for LMS training	4	3	7
7	Incorrect DE perceptions	4	3	7
8	Requests beyond system competencies	4	3	7
9	Exam safety concern	3	3	6

Another staff member, F-2, who attracted attention to the instructors' lack of interest stated, *"The failure of the instructors to follow the instructions, training videos, and announcements that were produced for them as well as their intention to contact the distance education centre by phone resulted in a separate problem."* Another staff member, M-6, who brought attention to the predicament that arose with the pandemic, referring to the chaos and ambiguity issues said *"The fact that the trainers have no idea about what would happen in the process posed a huge obstacle to the good functioning of the system."* Another staff member, M-5, remarked, *"When the number of instructors necessary to serve grew, DEC staff had to swiftly produce training videos on how to utilise the system, which took a lot of time and effort,"* and talked about how rigorous it was that the training videos were shot in a short amount of time to assist the instructors.

Another staff member, F-1, stated *"The insufficient knowledge of the instructors who taught utilising DE application for the first time brought various issues in practice,"* and discussed the problems induced by the instructors behaving according to their own DE perceptions. The same staff member, on the other hand, said, *"In addition to regular functionality of the system, the instructors' demands for further assistance from DEC staff in terms of features, such as the forum and attendance introduced troubles when the time was of the essence."* Another staff member, M-4, underlined the extra workload that emerged throughout the exam times, *"The instructors' desire to take more security measures to protect the safety of assessment and evaluation activities during exam periods necessitated the use of a wide range of applications in the exams in a short period of time."*

System-centred Problems

Table 3 shows the problems that DEC staff encountered resulting from the DE system.

Table 3

The System-centred Problems of DEC Staff

		System-centred problems		
		Those with DE experience (f)	Those with no DE experience (f)	Total (f)
1	SIS integration	4	4	8
2	System speed	4	2	6
3	Exam security	3	3	6
4	System Competencies	3	2	5
5	Connection speed	2	3	5
6	Lack of testing	4	1	5
7	Software incompatibility	3	1	4
8	Mobile application problem	2	1	3

When looking at Table 3, the category of system-centred problems contained eight codes. According to their frequency of repetition, these codes were listed as *SIS integration, system speed, exam security, system competencies, connection speed, lack of testing, software incompatibility, and mobile application problems.* The SIS integration issue was the most commonly stated system-centred problem by DEC staff, and a staff member, M-4, referring to the challenges associated with the SIS synchronisation, said, *"It took us days to transfer all of the students in the student information system (SIS) to the system without any error, and lack of the automated synchronisation of the students who were added later to the SIS caused further issues." "The outbreak of the pandemic sparked a worldwide switch to distance education, which led the DE system we use to slow down from time to time due to the workload,"* added another staff member, M-6. Staff member, F-1, brought up the issue of exam security, *"The DE system was insufficient for us to take various measures during exam periods, which resulted in some problems following the exams."*

Staff member, M-2, raised attention to the problems related to limited system competencies, referring to some competency problems of the system, *"When the DE system failed to satisfy some of the requirements relating to the departments where the instructors worked, DEC staff had to seek for other possible solutions and propose alternatives." "Since it is a global issue, it has caused occasional slowdowns in internet connection speed; nonetheless, this problem might cause substantial issues at critical times,"* was expressed by staff member, M-1. Staff member, M-4, who noted the inability to test the DE system said, *"Since we could not find the necessary time to test the DE system, we had to deal with all of the problems during the process, which compelled us."* Staff member, M-3, stressing the consequences of the software incompatibilities of the system, stated, *"The fact that the DE system did not operate with all browsers and occasionally caused problems with mobile device software forced students to contact DEC directly." "The DE system's mobile application occasionally failed, leading troubles in applications like as exams for students utilising mobile devices, which reflected directly on the DEC*

staff," mentioned another staff member, F-2, attracting attention to the mobile application problems, which was the least challenging circumstance in this category.

Other Problems

Table 4 shows other problems that DEC staff encountered.

Table 4

Other Problems of DEC Staff

		Other problems		
		Those with DE experience (f)	Those with no DE experience (f)	Total (f)
1	Administrators' expectations	4	–	4
2	Lack of organisation	4	–	4
3	Lack of DE system training	4	–	4
4	Lack of staff	3	–	3

When looking at Table 4, the category of other problems contained four codes. According to their frequency of repetition, these codes were listed as *administrators' expectations, lack of organisation, lack of DE system training, and lack of staff.* Another staff member, M-2, expressed, *"It took a long time to respond to administrators' demands to accomplish various faculty/department applications while maintaining educational standards, particularly during the early stages of the pandemic"*, and underlined that DEC staff bear a tremendous level of responsibility at the university and worked hard to meet the administrators' expectations. Another staff member, F-1 said *"The outbreak of the pandemic caused a delay in the planning of the emergency distance education, such as staff resources, communication, and inspection. This necessitated a greater concentration of DEC staff"*, calling attention to the problems created by organisational flaws. Staff member, M-1, addressed the issue of lack of DE system training by focusing on the problems faced by staff who had not been trained to manage the new DE system, *"Since the DE system is new, DEC staff who were not trained on it exerted a lot of effort trying to figure out how to solve the problem with their own abilities."* Staff member, M-3, stated, *"When DEC had to service the entire university, it needed considerable assistance since its human resources were not designed according to the emergency distance education plan"*, highlighting that just a small number of personnel had to accomplish this task, which caused problems.

Conclusion, Discussion and Recommendations

This study aimed to reveal the problems that DEC staff faced during the emergency distance education practices in the pandemic period and to provide solutions to these problems. The global spreading of the COVID-19 virus, as well as the fast transition of educational institutions to distance education, have brought along many problems. One of these problems is the issues faced by staff of the distance education centre, which is planned for the universities that provide face-to-face education and serve a smaller number of students during normal times. These problems were found to appear in four categories: student-centred, instructor-centred, system-centred problems, and other problems.

When student-centred problems were examined, it is possible to assert that a gerat majority of students had a low level of computer literacy (Bilgiç & Tüzün, 2015; Kaya, 2020), which increased the burden of DEC staff. Furthermore, the failure of students to attend classes due to technical difficulties (Kürtüncü & Kurt, 2020; Afşar & Büyükdoğan, 2020; Sarı and Nayır, 2020) has added further workload on DEC staff, given the policy of managing the pandemic period with a flexible education approach. The students struggled with adaptation problems during this period due to the lack of their distance education experience (Sümer, 2016).

This circumstance put a huge workload on DEC staff, who were forced to deal directly with students who were experiencing adaptation problem. Due to the chaos and ambiguity experienced during the pandemic period, a great majority of students regarded DEC as the first place to resort, and DEC staff had to meet all of these demands. However, the findings of the study proved that students had communication problems with the instructors during the emergency distance education period (Akbal & Akbal, 2020; Bilgiç & Tüzün, 2015), and DEC staff took part in resolving the resulting chaos. Another problem is the concern that students had of failing their classes during the emergency distance education process. This concern reflected on the DEC staff as various problems. The study by Kürtüncü and Kurt (2020) mentioned the concerns of students about their classes in the distance education system and supported the findings of the study. The opinions of the DEC personnel suggested that the students sought to tackle their technical problems through the DEC staff, which resulted in a variety of difficulties for the DEC staff. Many studies have reported that technical problems have an adverse impact on students (Afşar & Büyükdoğan, 2020; Kürtüncü & Kurt, 2020; Durak, 2017).

The outcomes of the study demonstrated that the students' lack of interest in the distance education process negatively affected the DEC staff. This required the DEC staff to work extra hours in order to inform students. The orientation of new students to the DE system was another problem that DEC staff faced. Students with no prior experience with distance education have difficulty following the lectures in the DE system (Saltürk & Bingöl, 2020). New university students not only are unfamiliar with every topic but also need orientation in distance education. During the pandemic period, distance education applications should be built in, to proceed in a flexible manner that does not bore students (Bozkurt, 2020). The opinions of DEC staff concluded that students abused this flexibility on occasion.

Given the problems faced by DEC staff resulting from the instructors, the emphasis on technopedagogical incompetency come into prominence. Technopedagogical competence is defined as instructors' ability to integrate pedagogy, content, and technological knowledge (Koehler & Mishra, 2008). The technopedagogical incompetency of the instructors turns into the issues that DEC staff must actively address. Some studies emphasised the lack of technical knowledge that the instructors had during this process (Tümen-Akyıldız, 2020; Bilgiç & Tüzün, 2015; Sarı & Nayır, 2020). In their study, Bakioğlu and Çevik (2020) stressed that the materials used by instructors in face-to-face education should differ from those utilized in distance education. This caused anxiety among the instructors who had to transfer their classes to distance education in a short period of time, and it was concluded that they requested assistance from DEC staff. Furthermore, the mistakes made by the instructors during the process due to a lack of interest were eventually absorbed by the DEC staff, which brought a workload burden for the DEC staff. It was stated that as a consequence of the rise of chaos and ambiguity,

training videos for instructors to address this complicated circumstance and effectively use the DE system were produced, and creating the videos was extremely exhausting for the DEC staff. Many universities were obligated to deliver these trainings throughout the pandemic period (Yavuz, Kayalı, Balat, & Karaman, 2020). In this sense, the instructors who worried about exam security asked DEC staff to come up with alternate solutions, and doing particular studies on exam security caused challenges for the DEC staff. During the pandemic, educational institutions suffered from vulnerabilities for exam security due to the quick transition to distance education (Bozkurt, 2020; d'Orville, 2020).

When the problems that DEC staff had due to systemic errors were examined, the most significant issue was that the DE system cannot be integrated with SIS, which means that students who enrolled in SIS were not automatically registered in the DE system. This is a primary problem that many universities have been struggling with (Durak, Çankaya, & İzmirli, 2020). Furthermore, the global interruption of education led the system's speed to slow down, forcing DEC staff to schedule their activities in accordance with the system's speed. Results of similar studies on this subject are compatible with the results of the present study (Kırmacı & Acar, 2018; Bilgiç & Tüzün, 2015). The effort to ensure exam security was another consideration that DEC staff faced. The study by Bengtsson (2019) revealed that holding distance exams raised many ethical problems. Exam security in distance education has always been a controversial matter, notwithstanding the measures taken by DEC staff and instructors (Dünya, Şahin, & Aybek, 2021).

According to several studies, cheating in exams has increased globally throughout the pandemic (Rossiter, 2020). During the pandemic, this has been one of the problems that DEC staff have had to cope with. Again, on the global scale, the transition to distance education and working models has put the internet infrastructures of many countries at a disadvantage, causing systems to slow down or even go down from time to time (Durak, Çankaya, & İzmirli, 2020). Apart from the problems they faced due to students, instructors, and the system, when other problems experienced by DEC staff were examined, satisfying the administrators' expectations in order to ensure the proper functioning and building the suitable organisation in order to respond to the expectations were among the responsibilities that featured. Given the lack of sufficient number of staff, it was observed that this circumstance raised problems for DEC staff. The study by Bilgiç and Tüzün (2015) discovered similar outcomes with the study. Finally, as a consequence of the outbreak of the pandemic, it was discovered that DEC staff were not trained on the DE system, which was still in the testing phase, forcing them to learn the system during the process, which was challenging for DEC staff.

Based on the findings of the study, it was concluded that DEC staff had problems in many aspects in the COVID-19 pandemic. These problems may be generally grouped as: problems based on students' and instructors' knowledge of technology; problems related to technical and economic difficulty; problems of adaptation to distance education; and time-related issues, resulting from the outbreak of the pandemic. The following recommendations are offered for solving these problems based on the findings of the study:

- The atmosphere in which instructors and students may employ distance education effectively should be supplied to acquire information about use of technology.

- Some technical conditions of universities and students, particularly for distance education, should be enhanced in order to be prepared for unusual circumstances.
- Even if face-to-face education comes back, distance education should be integrated into applications as these technologies develop, and distance education should not be drawn apart from face-to-face education.
- For potential unfavourable scenarios, educational institutions should prepare extensive and practical emergency training plans.
- The instructors should be trained how to use software so that they can readily develop their own materials.
- Educational institutions should train the instructors on their own distance education systems, and repeat these trainings often.
- Educational institutions should develop their own distance education systems based on their possibilities and test them periodically.
- The number of specialists employed by distance education centres should be increased in accordance with the efficiency of the centre.

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References

Adıyaman, Z. (2002). Uzaktan eğitim yoluyla yabancı dil öğretimi [Foreign language teaching through distance education]. *The Turkish Online Journal of Educational Technology TOJET*, *1*(11), 92–97.

Afşar, B., & Büyükdoğan, B. (2020). Covid-19 pandemisi döneminde iibf ve sbbf öğrencilerinin uzaktan eğitim hakkındaki değerlendirmeleri [Assessments of fbas and fshs students about distance education during the covid-19 pandemic period]. *Karatay Sosyal Araştırmalar Dergisi* [Journal of Karatay Social Research], *5*, 158–179.

Akbal, H., & Akbal, H. İ. (2020). Covid-19 Pandemi Sürecinde Uzaktan Eğitim İle İlgili Yaşanan Sorunların Öğrenci Bakış Açısına Göre AHP Yöntemi İle İncelenmesi [Investigation of the problems related to distance education in the Covid-19 pandemic process by the AHP method according to the student's view]. *Bartın Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi* [Bartın University Journal of Faculty of Economics and Administrative Sciences], *11*(22), 533–546.

Akdemir, Ö. (2011). Yükseköğretimimizde uzaktan eğitim [Distance education in Turkish higher education]. *Yükseköğretim ve Bilim Dergisı* [Journal of Higher Education and Science], *1*(2), 69–71.

Arat, T., & Bakan, Ö. (2014). Uzaktan eğitim ve uygulamaları [Distance education and applications]. *Selçuk Üniversitesi Sosyal Bilimler Meslek Yüksekokulu Dergisi* [Journal of Selçuk University Social Sciences Vocational School], *14*(1–2), 363–374.

Bakioğlu, B., & Çevik, M. (2020). COVID-19 Pandemisi Sürecinde Fen Bilimleri Öğretmenlerinin Uzaktan Eğitime İlişkin Görüşleri [Science teachers' views on distance education in the COVID-19 pandemic process]. *Journal of Turkish Studies*, *15*(4), 109–129.

Bengtsson, L. (2019). Take-home exams in higher education: A systematic review. *Education Sciences*, *9*(4), 267. doi: 10.3390/educsci9040267

Bilgiç, H. G., & Tüzün, H. (2015). Yükseköğretim kurumları web tabanlı uzaktan eğitim programlarında yaşanan sorunlar [Problems experienced in higher education institutions web-based distance education programs]. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi* [Journal of Open Education Practices and Research], *1*(3), 26–50.

Bozkurt, A. (2020). Koronavirüs (Covid-19) pandemi süreci ve pandemi sonrası dünyada eğitime yönelik değerlendirmeler: Yeni normal ve yeni eğitim paradigması [The coronavirus (Covid-19) pandemic process and post-pandemic education in the world oriented assessments. New normal and new educational paradigm]. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi* [Journal of Open Education Practices and Research], *6*(3), 112–142.

d'Orville, H. (2020). *COVID-19 causes unprecedented educational disruption: Is there a road towards a new normal?* Prospects, 1–5. https://doi.org/10.1007/s11125-020-09475-0

Demir, E. (2014). Uzaktan Eğitime Genel Bir Bakış [Overview of distance education]. *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi* [Dumlupınar University Journal of Social Sciences], (39), 203–212.

Durak, G. (2017). Uzaktan eğitimde destek hizmetlerine genel bakış: sorunlar ve eğilimler [Overview of support services in distance education: Issues and trends]. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi* [Journal of Open Education Practices and Research], *3*(4), 160–173.

Durak, G., Çankaya, S., & İzmirli, S. (2020). COVID-19 pandemi döneminde Türkiye'deki üniversitelerin uzaktan eğitim sistemlerinin incelenmesi [Examining the Turkish universities' distance education systems during the COVID-19 pandemic]. *Necatibey Eğitim Fakültesi Elektronik Fen ve Matematik Eğitimi Dergisi* [Necatibey Faculty of Education Electronic Journal of Science and Mathematics Education], *14*(1), 787–809.

Dünya, B. A., Şahin, M. D., & Aybek, E. C., (2021). Yükseköğretimde Uzaktan Ölçme ve Değerlendirme Deneyimleri: Üç Devlet Üniversitesinden Bir Örnek [Distance assessment experiences in higher education: An example from three public universities in Turkey]. *Ahi Evran Üniversitesi Sosyal Bilimler Enstitüsü Dergisi* [Journal of Ahi Evran University Institute of Social Sciences], *7*(1), 232–244.

Heasly, B., & Iliško, Dz. (2021). Editorial: Doing educational research: Culturally, scientifically, ethically, and transdisciplinarily. *Discourse and Communication for Sustainable Education*, *12*, (2), 1–4. https://doi.org/10.2478/dcse-2021-0012

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. *Educause Review*, *27*, 1–12.

Kaya, S. (2020). Zorunlu Uzaktan Eğitimde Karşılaşılan Sorunlar: Öğretim Elemanı ve Öğrenci Görüşleri [Problems encountered in compulsory distance education. Instructor and student opinions]. *VIIth International Eurasian Educational Research Congress*, 10–13.

Kırmacı, Ö., & Acar, S. (2018). Kampüs Öğrencilerinin Eş Zamanlı Uzaktan Eğitimde Karşılaştıkları Sorunlar [The problems of campus students in simultaneous online distance education]. *Eğitimde Kuram ve Uygulama* [Journal of Theory and Practice in Education], *14*(3), 276–291.

Knif, L., & Kairavuori, S. (2020). Student teachers building a sustainable future through Constructing equality in visual arts education. *Discourse and Communication for Sustainable Education*, *11*(1), 74–90. doi: 10.2478/dcse-2020-0008

Koehler, M. J., & Mishra, P. (2008). Introducing tpck. *Handbook of technological pedagogical content knowledge (TPCK) for educators*, *1*(1), 3–29.

Krueger, R. A., & Casey, M. A. (2000). *Focus group: a pratical guide for applied research*. Sage.

Kürtüncü, M., & Kurt, A. (2020). Covid-19 pandemisi döneminde hemşirelik öğrencilerinin uzaktan eğitim konusunda yaşadiklari sorunlar [Problems of nursing students in distance education in the Covid-19 pandemia period]. *Avrasya Sosyal ve Ekonomi Araştırmaları* Dergisi [Eurasian Journal of Social and Economic Studies], *7*(5), 66–77.

Lau, J., Yang, B., & Dasgupta, R. (2020). Will the coronavirus make online education go viral. *Times Higher Education*, *12*. https://www.timeshighereducation.com/features/will-coronavirus-make-online-education-go-viral

Patton, M. Q. (2002). *Qualitative evaluation and research methods* (3rd Ed.) Thousand Oaks, Sage Publication.

Rossiter, S. (2020). *Cheating becoming an unexpected COVID-19 side effect for universities*. https://www.cbc.ca/news/canada/edmonton/cheating-becoming-anunexpected-covid-19-side-effect-for-universities-1.5620442

Saltürk, A., & Güngör, C. (2020). Üniversite Öğrencilerinin Gözünden Covid-19 Pandemi Döneminde Uzaktan Eğitime Geçiş Deneyimi [Distance education in the Covid-19 pandemic from the perspective of university students]. *Adiyaman Üniversitesi Sosyal Bilimler Dergisi* [Adiyaman University Journal of Social Sciences], *36*, 137–174.

Sarı, T., & Nayır, F. (2020). Pandemi Dönemi Eğitim: Sorunlar ve Fırsatlar [Education in the pandemic period: Challenges and opportunities]. *Journal of Turkish Studies*, *15*(4), 959–975.

Sümer, M. (2016). Sanal derslere ilişkin öğrenci görüşlerinin incelenmesi [Investigation of learners' opinions registering virtual classes]. *Uşak Üniversitesi Sosyal Bilimler Dergisi [Uşak University, Journal of Social Sciences]*, *9*(3), 181–200.

Šapale, S., Iliško, Dz., & Badjanova, J. (2021). Sustainable career guidance during the pandemic: Building pathways into a 'new normal.' *Discourse and Communication for Sustainable Education, 12*(1), 140–150. doi: 10.2478/dcse-2021-0010

Tümen-Akyıldız, S. (2020). Pandemi döneminde yapılan uzaktan eğitim çalışmalarıyla ilgili İngilizce öğretmenlerinin görüşleri (bir odak grup tartışması) [EFL teachers' views on the pandemic distance education (a focus groupdiscussion)]. *RumeliDE Dil ve Edebiyat Araştırmaları Dergisi* [RumeliDE Journal of Language and Literature Studies], *21*, 679–696. doi: 10.29000/rumelide.835811

UNESCO. (2020). Global Education Coalition #Learning Never Stops – COVID-19 Education Response. https://en.unesco.org/covid19/educationresponse/globalcoalition

WHO. (2020). *WHO Director-General's opening remarks at the media briefing on Covid-19*. https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19—11-march-2020

Yavuz, M., Kayalı, B., Balat, Ş., & Karaman, S. (2020). Salgın Sürecinde Türkiye'deki Yükseköğretim Kurumlarının Acil Uzaktan Öğretim Uygulamalarının İncelenmesi [Review of distance learning applications in the universities in the Covid-19 period]. *Milli Eğitim Dergisi* [Journal of National Education], *49*(1), 129–154.

Yazıcı, K., Ay, E., Uslu, S., & Arık, S. (2021). The relationship between the lifelong learning tendencies and teacher self-efficacy levels of social studies teacher candidates. *Discourse and Communication for Sustainable Education*, *12*(1), 67–84. doi: 10.2478/dcse-2021-0006

Yıldırım, A., & Şimşek, H. (2016). *Sosyal Bilimlerde Araştırma Yöntemleri* [Research methods in social sciences]. Ankara.

Zygmunt, T. (2016a). Language education for sustainable development. *Discourse and Communication for Sustainable Education*, *7*(1), 112–124. doi: 10.1515/dcse-2016-0008

Zygmunt, T. (2016b). Philosophy of sustainable development Polish perspective. *Discourse and Communication for Sustainable Education*, *7*(2), 43–51. doi: 10.1515/dcse-2016-0015

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