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Opinions of academicians who switched to compulsory distance education due to the pandemic and earthquake

Esra Fıratlı Türker [a] *

[a] Anadolu University, Türkiye

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Highlights

- The aim of this study is to determine the opinions of academics on open and distance education practices in online learning environments during the Covid-19 pandemic and after the February 6 earthquakes during the implementation of compulsory distance education.
- On March 15, 2020, after the mandatory distance education that was implemented and ended due to the Coronavirus (Covid-19) pandemic, mandatory distance education was started again after the earthquakes that affected 10 provinces in Turkey on February 6, 2023. In this process, application methods for open and distance education in online learning environments for academics vary.
- It is important to evaluate the critical paradigm shifts in the forms of technology-oriented communication that academics carry out in the digital environment instead of face-to-face communication with their students in classrooms or lecture halls within the scope of education and training activities. The ability of academics to adapt to smart technologies determines the effectiveness and quality of online learning environments.

Abstract

In this study, the opinions of academics who experienced compulsory distance education due to the Covid-19 pandemic and the February 6 earthquakes were examined regarding the new situations encountered and their experiences. Qualitative methods and phenomenology model were used to conduct the research. Data were collected through a semi-structured interview form in April 2024. The study group consisted of 15 academics with different titles working at Anadolu University, Osmangazi University and Eskişehir Technical University in Eskişehir province. The findings indicate that for the two compulsory distance education processes in which the academics are involved, there are negatives such as low quality of education, limited interaction and distance education is not suitable for vocational university education. The most prominent of the instructor-related difficulties faced by academics is the lack of knowledge and experience in distance education technologies. It was emphasized that the most prominent of the student-based difficulties is the low participation of students in the courses and the most prominent of the external-based difficulties is that the infrastructure for distance education is not sufficient and distance education restricts interaction. In this process, it was inevitably observed that academics inevitably developed themselves in distance education, gained new knowledge and experience by making efforts, and that experienced academics adapted more easily, while inexperienced ones had difficulties. However, the inexperienced ones were able to reach the desired results by consulting those who knew better and seeking solutions on their own. In order to continue distance education with high motivation and efficiency, it was concluded that the academics showed dedication to learn the details of distance education, started to use new tools, enriched the content of the course in an interesting way, interacted closely with the students, communicated with them and constantly encouraged them. For this purpose, in live lectures, academics mostly utilized tools such as cameras, microphones, videos, slides and other visuals.

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Keywords: *Open and Distance Education, Coronavirus Pandemic, Compulsory Distance Education.*

*Corresponding author. Department of Distance Education, Open Education Faculty, Anadolu University, Türkiye.
e-mail address: efiratli@anadolu.edu.tr
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1. Introduction

Distance education is a modern educational approach supported by technological tools, where the trainer and the learner do not need to be in the same environment, and can be realized synchronously or asynchronously (Hodges et al. 2020). Distance education is becoming more and more widespread due to the developments in the field of communication and technology (Akkaş Baysal & Ocak, 2020). Since the importance and demand for education in the world is increasing, distance education, which has no physical distance and time limitations, is considered as an important alternative to meet the demands (Bakioğlu & Çevik, 2020; Genç & Gümrükçüoğlu, 2020).

Among the reasons why distance education has gained popularity, it is possible to count factors such as providing sustainability in education, supporting equality of opportunity in education, reducing education costs, contributing to standardization in education, as well as delivering education to large masses without time and space limits (Ferguson & Sharples, 2014; İşman, 2011; Yurtbakan & Akyıldız, 2020; Çokyaman & Ünal, 2021). However, there are also some barriers that need to be overcome for distance education. These include the need to purchase a technology for distance education, the need to learn the technology required for distance education, technology-related failures and disruptions, interaction and communication limitations in distance education (Battalio, 2007; Akkaş Baysal & Ocak, 2020; Afşar & Büyükdoğan, 2020; Başaran et al., 2020; Avcı & Akdeniz, 2021).

In this study, it was aimed to examine the opinions of academics about the mandatory distance education in universities in Turkey due to the Covid-19 pandemic and the February 6 earthquakes.

2. Literature

In the literature, it is seen that a large number of studies have been conducted both in Turkey and abroad in relation to the mandatory distance education practices due to the Covid-19 pandemic and the February 6 earthquakes. However, it is understood that few studies have been conducted on the experiences of academics related to these mandatory distance education practices and that there is a gap in this field. How the academics meet distance education in these unexpected and unprepared situations, how they are affected by this process, how they adapt themselves to this process, what kind of problems they face and how they overcome these problems have not been sufficiently researched. Examining academics' experiences of compulsory distance education can contribute to a better understanding of these practices and to the efficient and smooth development of distance education.

As the demand for distance education has increased, research on distance education has also increased. In these studies, the phenomenon of distance education was frequently examined and compared with classical face-to-face education from different perspectives (Bediang et al., 2013; Mukhtar et al., 2020; Marshall & Wolanskyj-Spinner, 2020; Farooq et al., 2020; Genç & Gümrükçüoğlu, 2020; Afşar & Büyükdoğan, 2020; Keskin & Özer Kaya, 2020; Arık et al., 2021; Uzun & Uzunöz; 2022). In these studies, it was generally found that classical face-to-face education was preferred to distance education.

Distance education is becoming increasingly widespread in Turkey. Especially universities and private educational institutions show more interest in distance education. Distance education applications are pre-planned and take place in environments where both the instructor and the student volunteer for distance education. However, due to the Covid-19 pandemic and the February 6 earthquakes, mandatory distance education was introduced, especially in universities. In these two compulsory distance education practices, both universities, academics and students were compulsorily involved in these trainings without the necessary preparation. While even normal distance education practices are often the subject of discussions, it can be predicted that compulsory distance education will face more difficulties and problems. Research has shown that many problems have been encountered with distance education, which was compulsory due to the Covid-19 pandemic and the February 6 earthquakes, and that students and instructors are generally dissatisfied with these compulsory distance education programs and do not consider them sufficient and efficient. The primary problems identified by the studies are the lack of adequate preparations for compulsory distance education (Bakioğlu & Çevik, 2020; Metin, Gürbey, & Çevik, 2021), infrastructure

problems and technical problems in distance education (Arslan et al, 2021; Afşar & Büyükdoğan, 2020; Keskin & Özer Kaya, 2020; Avcı & Akdeniz, 2021; Metin, Gürbey, & Çevik, 2021; Fıratlı Türker, 2023; Yağız, 2023), students experiencing inequalities in accessing technological opportunities necessary for distance education (Demir & Özdaş, 2020; Karaca & Kelam, 2020; Urhanoğlu, Bayırlı, & Aslan, 2021; Avcı & Akdeniz, 2021; Yağız, 2023), distance education is not suitable for applied trainings (Afşar & Büyükdoğan, 2020; Arık et al., 2021; Erdoğdu & Atabay, 2023; Yağız, 2023; Koçer & Koçak, 2024), distance education is insufficient in terms of communication and socialization (Fıratlı Türker, 2023), students and teachers cannot be motivated in distance education (Bakioğlu & Çevik, 2020; Aktaş et al., 2020; Metin, Gürbey, & Çevik, 2021; Karadağ-Yılmaz, Savaş, & Kalkan, 2022; Erdoğdu & Atabay, 2023; Çakır et al, 2023), the difficulty of providing classroom control in distance education (Metin, Gürbey, & Çevik, 2021; Karadağ-Yılmaz, Savaş, & Kalkan, 2022), the inadequacy of distance education course materials/instruments (Karadağ-Yılmaz, Savaş, & Kalkan, 2022), and the inability to conduct fair and effective assessment and evaluation in distance education (Kurt, Kandemir, & Çelik, 2021; Karadağ-Yılmaz, Savaş, & Kalkan, 2022; Yağız, 2023). In addition to these problems, research has also shown that distance education has some positive aspects. Studies have emphasized that distance education is a convenient and effective tool for continuing education in times of necessity, provides easy access to information (Urhanoğlu, Bayırlı, & Aslan, 2021; Çakır et al., 2023) and is useful in this respect (Afşar & Büyükdoğan, 2020; Keskin & Özer Kaya, 2020; Bakioğlu & Çevik, 2020; Kurt, Kandemir, & Çelik, 2021). It has also been stated that distance education provides convenience and comfort to students and academicians (Afşar & Büyükdoğan, 2020; Yurtbakan & Akyıldız, 2020).

It is observed that the results of studies conducted abroad are in parallel with the studies in Turkey. In a study conducted by Churiyah et al. (2020) in Indonesia, it was found that the infrastructure for distance education was sufficient, but teachers were inadequate and unprepared for distance education. It was found that teachers need additional training especially in technical subjects. It was found that students had motivation problems and that students were inadequate in this regard since distance education requires self-regulation. The study conducted by Lie et al. (2020), also in Indonesia, showed that teachers are not sufficient to improve the quality of distance education, however, teachers are aware of their shortcomings and are ready to act selflessly in this regard. It was found that the quality of distance education is related to the fact that it is student-centered, teachers are prepared, it is designed in accordance with pedagogical requirements, and there is a support system for distance education. In the study conducted by Rapanta et al. (2020) in Switzerland, they emphasized that especially academics without distance education experience had difficulties in distance education, which was compulsory in universities during the pandemic period, and emphasized that attention should be paid to the social, cognitive and facilitative aspects of distance education for a qualified distance education. In the study conducted by Dietrich et al. (2020) in France, it was determined that compulsory distance education, which was passed due to the Covid-19 pandemic, brought some negativities along with benefits. In this study, it was concluded that teachers showed strong resilience by sacrificing themselves against the various difficulties of compulsory distance education and learned more about distance education in 2 months than they could learn in 10 years. Alea et al. (2021) found that there is a difference between teachers' readiness for distance education in a study conducted in the Philippines. Bdair (2021) in Saudi Arabia found that satisfaction with distance education was moderate and both students and teachers preferred face-to-face education. While distance education was preferred because it was student-centered and flexible, it was not preferred in terms of learning environment, lack of tools and equipment, and inadequacies in assessment and evaluation. Teachers' lack of readiness for distance education was mentioned as a problem. In a study conducted by Dolighan and Owen (2021) in Canada, it was found that the competencies of teachers who had not previously received any training and support in distance education were low. Francom, Lee, and Pinkney (2021) in the USA found that distance education is a valuable tool to ensure the sustainability of education and that the tools used by teachers are familiar to them. However, it was also found that teachers experienced problems in distance education due to communication problems, technical problems, and lack of standards and guidelines in schools. In a study conducted by Marek, Chew, and Wu (2021) with academics who provided compulsory distance education in universities around the world during the Covid-19 pandemic, it was found that academics had both

positive and negative perceptions about distance education. It was found that academics face more workload and stress for distance education than face-to-face education. Less than half of the academics were supported by their institutions. It was found that academics were ready to make the necessary dedication and sacrifice for the education of students. In a study conducted by Paliwal and Singh (2021) with distance education academics in Indian universities, the findings showed that the level of course design competencies, communication competencies, time management competencies among academics was not sufficient, while the technical competencies of teachers met the requirements of readiness to handle online education. Kulikowski, Przytuła, and Sułkowski (2022) pointed out in their study that distance education, which was compulsory due to the Covid-19 pandemic, brought some discussions in terms of task identity, task importance, skill diversity, feedback, autonomy, and social dimensions of work for teachers. The study conducted by Kruszewska, Nazaruk, and Szewczyk (2022) in Poland found that teachers see distance education as a valuable tool to deliver education to everyone in mandatory situations such as the Covid-19 pandemic. Problems such as lack of access to technology, students' lack of motivation and lack of communication were identified as negative aspects of distance education.

3. Methodology

Qualitative methods and phenomenology model were used in the research with a study group of 15 academicians with various titles currently working at three universities in Eskişehir province.

In essence, phenomenology is a qualitative research method design that relies on the views of individuals who experience the phenomenon in order to obtain information about the phenomenon. The main method utilized is long interviews. Data sources are individuals or groups who have experienced the phenomenon that the research focuses on and who have the competence to explain this phenomenon.

3.1. Research Model/Design

Qualitative methods and phenomenology model were used in the realization of the research. Phenomenology model is used for studies that aim to investigate phenomena that are frequently encountered on a daily basis, which are not foreign to us but whose meaning cannot be fully grasped (Yıldırım & Şimşek, 2016).

The data of the research were analyzed by content analysis method. After analyzing the data, the participants were identified as P1, P2, P3, etc. The data combined under each research question were coded and the codes were grouped under appropriate themes. The findings obtained from the analysis were visualized in tables. The salient opinions of the participants were also presented to support the findings.

Table 1.

Demographic Information of the Participants.

	Code	Gender	Age	Title	Seniority	University
1	P1	Male	58	Full professor	35	AU
2	P2	Female	45	Associate professor	23	AU
3	P3	Male	55	Associate professor	33	AU
4	P4	Female	38	Assistant professor	15	AU
5	P5	Female	56	Full professor	34	AU
6	P6	Male	52	Associate professor	30	OU
7	P7	Male	50	Associate professor	28	OU
8	P8	Female	55	Full professor	32	OU
9	P9	Female	45	Assistant professor	20	OU
10	P10	Male	50	Lecturer	5	OU
11	P11	Male	53	Lecturer	31	ESTU
12	P12	Female	43	Assistant professor	21	ESTU
13	P13	Male	50	Full professor	28	ESTU
14	P14	Male	48	Lecturer	25	ESTU
15	P15	Female	50	Assistant professor	28	ESTU

3.2. Data Collecting Tools

The data for this study were collected through interviews in April 2024. Audio recordings were not used in the interviews.

The data were collected through a semi-structured interview form with 10 questions. The interview form was created after a careful review of the relevant literature in accordance with the purpose of the research. An informed consent form was prepared and obtained for the voluntary participants consisting of academicians.

3.3. Sampling or Study Group

The study group consisted of 15 academicians with different titles working at Anadolu University, Osmangazi University and Eskişehir Technical University in Eskişehir (Table 1). Five participants from three different universities were included in the study. Seven of the participants were female and eight were male. Their ages ranged from 38 to 58 years and their professional experience ranged from 5 to 35 years. The participants were of various academic titles, namely Lecturer, Assistant Professor, Associate Professor, and Full Professor.

3.4. Data Analysis

In order to obtain evaluable data about the phenomenon, the opinions of academicians who experienced the phenomenon were consulted in order to obtain reliable information. In data analysis, after conceptual coding, the relationships of the themes were tried to be determined.

3.5. Validity and Reliability

A trust-based communication environment was created for the academics interviewed by the researcher from the beginning to the end of the research. In order to ensure validity, it was tried to present in a clear and understandable structure how the conclusions reached in the research were reached. It was ensured that the data were accessible when requested. The researcher examined the research topic as objectively as possible. In order to ensure reliability, research questions were asked to academicians working in three different universities during the data collection phase. The academics who were the data source were clearly defined. During the analysis of the data, control support was received from two academics. After the questions were prepared, consent was obtained from 15 academics who voluntarily participated. The results

obtained during reporting were carefully reported. Attention was paid to the internal consistency of the research. Care was taken to ensure that other researchers could reach the same results using the same data.

3.6. Research Procedures

By following the research procedure, determining the method and model, preparing the questions to be asked to the participants for the data to be collected, and planning how data analysis and reporting would be carried out, it was ensured that the various stages of the research remained within the boundaries of the predetermined framework.

3.7. Findings and Discussions

The rapid development of technology has changed the methods used in the fields of education and increased the tendency towards distance education. The easy accessibility and usability of technological systems has led to greater participation in learning processes. On the other hand, the participants of the process (learners and teachers) may lack basic equipment and skills. Distance education has become a teaching process that needs flexibility in perspectives and ways of implementation. In distance education, just like learners, teachers find themselves in different roles from the norms of traditional higher education. The educator is no longer the sole source of information. It is in the position of facilitating and supporting the learning of its target audience. Learners actively participate in the education and training process. More than any other teaching method, distance education requires a collaborative effort between teacher and learner that is not limited by time and space. This study aims to help identify and eliminate the problems and obstacles encountered in order to carry out distance education, which can be a promising and efficient learning method, more effectively.

According to the findings obtained in line with the subheadings covered by the methodology;

Concepts and Experience of Open and Distance Education

The research showed that the concept of open and distance learning has not yet been clarified. Based on their experiences, academics have conceptualized distance education in different ways, defining it differently.

Table 2.

Concepts Associated with Open and Distance Education and Experience

Theme	Code	Participant	f	Total
Negative concepts associated with open and distance education	Uncertainty	P1, P10	2	15
	Despair	P1	1	
	Learning difficulty	P9	1	
	Adaptation problems	P9	1	
	Motivation problems	P10	1	
	Distance	P10	1	
	Low attendance	P10	1	
	Inefficiency	P10	1	
	Working from home	P10	1	
	Pandemic	P10	1	
	One way communication	P1	1	
	Non-participation	P1	1	
	Zoom	P13	1	
	Digital native and digital immigrant	P8	1	
Positive concepts associated with open and distance education	Flexibility	P4, P6, P12	3	23
	Necessity	P6, P7	2	
	Equality	P6, P11	2	
	Innovation	P7, P11	2	
	Utility	P2, P3	2	
	Limitlessness	P3, P11	2	
	Technology	P10, P13	2	
	Usefulness	P2	1	
	Worthiness	P7	1	
	Continuity	P3	1	
	Comfort	P6	1	
	Future of education	P14	1	
	Tolerance	P12	1	
	Lighthouse	P2	1	
	Google Teams	P13	1	
Open and distance education experience	It is important for the instructor to be prepared	P4, P6, P8, P13, P14	5	15
	It is important to have education (of)	P5, P6, P8	3	
	Quality is important	P3	1	
	Student motivation is important	P3	1	
	It is important that the course material is complete	P4	1	
	Good planning is important	P4	1	
	It is important to use control mechanisms	P12	1	
	Adequacy of technological infrastructure is	P14	1	
	Purpose of use is important (Pandemic and earthquake)	P2	1	

"*What are the concepts that open and distance education evokes for you? Can you share your experiences in open and distance education*?", it was understood that this question can be analyzed in three sub-themes and these themes are the negative concepts evoked by open and distance education, positive concepts evoked by open and distance education and open and distance education experience. It was observed that positive associations (23) were more frequent than negative associations (15).

It was observed that the negative concepts evoked by open and distance education can be grouped under 14 items. These concepts did not have a clear priority and most of them were repeated one by one. The negative concepts associated with open and distance education are uncertainty, helplessness, learning difficulty, adaptation problems, motivation problems, distance, low participation, inefficiency, working from home, pandemic, one-way communication, non-participation, zoom, digital native and digital immigrant. Examples of participants' views on the negative concepts evoked by open and distance education are as follows:

"*Despite the fact that learning from online resources is more effective, students still experience learning difficulties. This means that students do not show sufficient adaptation to the lifelong learning process during their university education*". Participant 9

"*Especially when I met distance education for the first time during the pandemic, the concepts it evokes in my mind are shaped by the conditions of that period and are as follows: Necessity, technology, distance, inefficiency, low motivation, low participation, low interactive communication, home-workplace integration, uncertainty of what will happen tomorrow*". Participant 10

"It *was a process that I carried out by trying not to break communication with students, especially during periods such as the pandemic and earthquake period. I had difficulty at first because I was unprepared. We were unprepared as a system*.". Participant 13

It was seen that the positive concepts evoked by open and distance education can be grouped under 15 items. The concepts of flexibility (3), necessity (2), equality (2), innovation (2), usefulness (2), unrestrictedness (2) and technology (2) were found to be repeated more frequently. Other positive concepts were usefulness, value, continuity, comfort, future of education, tolerance, lighthouse metaphor and Google Teams. Examples of participants' views on the positive concepts evoked by open and distance education are as follows:

"*Open and distance education is a useful function in terms of ensuring lifelong continuity by eliminating time and space constraints*". Participant 3

"*A new and valuable mine. Just as data mines and data flow are important for researchers and academics, I think distance education is a type of education that is just beginning to be discovered. While we were struggling with a deadly virus all over the world, suddenly the possibilities of distance education came to our rescue in order not to interrupt education*". Participant 7

"*I think that education has a future. I believe that classical education, education stuck between walls, will lose its meaning in the next quarter century*". Participant 14

While talking about their open and distance education experiences, the participants emphasized the importance of some points. According to the frequency of repetition, these points are the preparedness of the instructor in open and distance education (5), having received training (3), the quality of open and distance education (1), motivating the student (1), having complete course materials (1), good planning (1), using control mechanisms (1), adequacy of technological infrastructure and purpose of use (1). Examples of participants' views on open and distance education experience are as follows:

"*Conceptually, distance education, which we were involved in during the pandemic, reminds me of the words useful, useful and valid. And despite a deadly virus that threatens human health, in a sense, distance education, as in the metaphor of "lighthouse", ensured that students did not lose their way in the sea of life they sailed*". Participant 2

"*I saw the necessity of technology once again. Academics who were familiar with the digital world were able to adapt to the process. Academics who were unfamiliar with the digital world struggled to adapt*". Participant 6

"*In my personal experience, I had problems due to the lack of technological infrastructure at that time. I think that the society and the education world were caught unprepared due to the pandemic that emerged suddenly, and that education was interrupted for two years due to the lack of necessary infrastructure*". Participant 14

Evaluation of the Distance Education Process after the Pandemic and Earthquake

Academics stated that although distance education is not new, it has become a compulsory learning option during the pandemic process worldwide and after the devastating earthquake in Turkey. In this direction, they evaluated the positive and negative aspects of the process.

Table 3.

Evaluation of the Distance Education Process after the Pandemic and Earthquake

Theme	Code	Participant	f	Total
Negative reviews	The quality of education was low	P10, P14, P15	3	16
	Interaction was limited	P2, P4, P14	3	
	Was not suitable for education	P1, P15	2	
	It was unnecessary and inefficient during the earthquake	P4, P8	2	
	Socialization was limited	P5	1	
	Educational requirements were not met	P9	1	
	Not suitable for technical/applied courses	P14	1	
	Technical problems disrupted education	P13	1	
	Each educator followed his/her own routine	P12	1	
	Face-to-face education is the priority choice	P2	1	
Positive reviews	Pandemic and earthquake showed that it was necessary	P3, P6, P7, P10, P11, P12	6	12
	It was necessary and efficient during the pandemic	P4, P8	2	
	It was easier because it was not dependent to the location.	P2	1	
	There was an abundance of use of visual content	P5	1	
	Being prepared made the process easier	P6	1	
	It is understood that trainers need to be constantly trained	P11	1	

From the responses of the participants to the question "*What are your thoughts on the distance education process you have been involved in after the pandemic and earthquake?*", it was understood that this question can be analyzed in two sub-themes and these themes are negative evaluations and positive evaluations. It was observed that some participants' evaluations addressed both positive and negative aspects. In total, it was observed that the positive evaluations (12) of the participants about the distance education process they were involved in after the pandemic and earthquake were less than the negative evaluations (16).

It was determined that the negative evaluations of the participants about the distance education process they were involved in after the pandemic and earthquake can be grouped under 10 headings, and the leading ones are the low quality of education (3), limited interaction in trainings (3), distance education is not suitable for university education (2), and distance education, especially after the earthquake, is unnecessary and inefficient (2). In addition to these, one participant mentioned that the requirements of the training could not be met, it was not suitable for technical/practical courses, technical problems disrupted the training, a standardized education could not be provided as each educator followed his/her own way, and

face-to-face education was always the priority. Examples of participants' negative evaluations of the distance education process they were involved in after the pandemic and earthquake are as follows:

> "*I always prefer face-to-face education. It was easier because there were no space constraints. However, I did not get the same pleasure as the interaction was more limited*". Participant 2

> *"This solution, which was resorted to because there was no other way to continue education, has brought many drawbacks. The most important of these is the decline in the quality of education. Whether this can be compensated in the future is also an unknown for me*". Participant 10

> "*As academics, we had to be compulsorily involved in these processes. In other words, there would be no other way of education and training. Since our individual differences and the skills we acquired in line with our personal development were not the same, it was inevitable that we would have different contributions when our participation in the distance education process was evaluated*". Participant 12

It was determined that the negative evaluations of the participants about the distance education process they were involved in after the pandemic and earthquake can be grouped under 6 headings, and the leading ones are that the pandemic and earthquake events show that distance education is necessary (6) and that distance education, especially after the pandemic, is necessary and efficient (2). In addition to these, one participant emphasized that distance education is easy because it is not tied to the place, the opportunity to use visual content is rich, some universities have distance education preparations and experience in distance education, so distance education processes in these universities are comfortable, and the trainers should always be ready with up-to-date information about distance education due to these two unexpected events. Examples of the positive evaluations of the participants about the distance education process they were involved in after the pandemic and earthquake are as follows:

> *"The necessity of distance education came to the fore during the pandemic and earthquake process. It eliminated the hesitations on this issue. As a result of the evolution of the education system due to necessity, open and distance education provided a favorable environment and eliminated the hesitations on this issue*". Participant 3

> "*A university in our city is the leading practitioner in this field. We were lucky in that respect. That university was able to use its ready-made system with its past experience. The other university was able to activate its system over time. Being a technical university, we were able to start using the system quickly. When distance education was reintroduced during the earthquake, we had no difficulty in adapting to the situation*". Participant 6

> "*Our involvement in the distance education process during the pandemic was an indisputable necessity to continue education. I cannot say the same for the post-earthquake period. Because I think we could only do distance education with our students who were victimized by this situation with their families in the provinces where the earthquake took place. In a sense, we weighed all our students in the same way*". Participant 8

Contributions of Distance Education to Education and Training Activities

In order to utilize the potential of the distance education system, there is a need to develop methods to improve the internal and external environment of the system. Therefore, distance education has some inherent disadvantages as well as different contributions.

Table 4.

Contributions of Distance Education to Education and Training Activities

Theme	Code	Participant	f	Total
Advantages	Useful for those who cannot access education due to distance and time	P2, P3, P14	3	19
	Beneficial for underprivileged individuals	P2, P3	2	
	Ensures sustainability of education	P11, P15	2	
	Low cost for students and educators	P12, P12	2	
	It directs education	P7, P9	2	
	A necessity today	P9, P14	2	
	Recording courses makes it possible to access them again	P8	1	
	Easily accessible	P12	1	
	Comfortable	P13	1	
	Useful to see new possibilities in education	P6	1	
	Useful as an alternative education model	P6	1	
	Can be used as a complementary education	P5	1	
Disadvantages	Weak	P1	1	4
	Insufficient	P1	1	
	Not suitable for in-depth education	P5	1	
	Cannot compete with face-to-face education	P11	1	
Things to consider when using	Adequate preparation required	P4, P5	2	5
	The right approach is required	P4	1	
	Correct and sufficient materials are required	P4	1	
	Should be used in necessary situations	P1	1	

In response to the question "*What are the contributions of the distance education process to education and training activities?*", it was understood from the answers given by the participants that this question can be analyzed in three sub-themes and that these themes are the themes of contributions, disadvantages and things to be considered in use. It was observed that the contributions of distance education (19) were mentioned much more frequently than the disadvantages (4).

Participants expressed 12 different contributions of distance education to education and training activities. The most prominent of these contributions are that it is useful for those who cannot reach education due to distance and time (3), it is useful for disadvantaged individuals (2), it makes education sustainable (2), it is less costly for students and instructors (2), it gives direction to education (2) and it is a necessity today (2). In addition to these, one participant mentioned that it is possible to access the courses again by recording them, it is easily accessible, it is comfortable, it gives the opportunity to see new possibilities in education, it is useful as an alternative education model and it can be used as a complementary education. Examples of participants' views on the contributions of distance education to education and training activities are as follows:

> "*Eliminating time and space constraints, making significant contributions in the field of education, providing education opportunities especially for disadvantaged individuals*". Participant 3

> "*I can say that distance education is a game changer in education and training activities, albeit by necessity. What started as a metaphor has managed to establish itself as a critical necessity for change*". Participant 7

> *"It benefits both the student and the teacher in terms of space and time. It provides a great convenience. For the student, it expresses a financial convenience in terms of accommodation, transportation, food and beverage*". Participant 13

Even though most of the participants expressed opinions about the contributions of distance education to education and training activities, there were also some participants who mentioned some disadvantages of distance education. The few disadvantages mentioned by these participants were that distance education is weak and inadequate in terms of education and that it is not suitable for in-depth education. One participant stated that distance education cannot compete with face-to-face education. Examples of participants' views on the disadvantages of distance education for education and training activities are as follows:

> "*It depends on how it is used. It is complementary to formal education, but if the lecturer is competent and the students are motivated to learn, it is very supportive and contributing. However, in my opinion, it was not a training where we could go into depth and detail like the training in the classroom*". Participant 5

> "*The contributions of the process to education and training activities cannot be ignored. Although it is not easy to compete with face-to-face education in many ways, its most important contribution is that it does not interrupt education despite emergencies*." Participant 14

Some of the participants stated that distance education contributes to education and training activities and that these contributions depend on some conditions. The issues that the participants foresee that distance education will make distance education beneficial if they are paid attention to are as follows: Adequate preparation should be made before distance education, the right approach should be determined for distance education, the right and sufficient materials should be used for distance education, and distance education should be used when it is compulsory. Examples of the participants' views on what needs to be considered for distance education to be beneficial are as follows:

> "*It saves energy, money and, perhaps most importantly, time, while providing freedom of access to training in any field, level and university. It can only be implemented with the right teaching approach and carefully prepared training materials*". Participant 4

Impressions on the Process of Mandatory Distance Education

Since distance education has to function in a compulsory and challenging environment, it has become important to plan and implement it better. The impressions of the teaching staff who undertook this responsibility contributed to the evaluation of the system.

Table 5.

Impressions on the Process of Compulsory Distance Education

Theme	Code	Participant	f	Total
Impressions	The university's preparation made the process easily	P11, P12, P13, P14	4	18
	Inexperienced teachers adapted by consulting and by trial and error	P1, P8, P10, P15	4	
	Inexperienced teachers faltered	P1, P5, P8	3	
	Experienced teachers adapted quickly	P1, P5, P8	3	
	Rectorate did not provide adequate training and support to teachers	P5, P15	2	
	Being a compulsory choice decreased student motivation	P11	1	
	Lack of interaction was troubling	P2	1	
Results	Inevitably everyone improved themselves	P4, P9, P10	3	7
	Prejudices about distance education have been shattered	P3	1	
	The importance of distance education is ascertained	P6	1	
	Readiness for extraordinary situations was observed	P3	1	
	The need to be ready for innovation and variation at all times is ascertained	P7	1	

In response to the question "*Can you share your impressions about the distance education process, which was passed on compulsorily in your university at unexpected moments, as it is throughout the country?*", it was seen that this question can be analyzed in two sub-themes and these themes are impressions and results. It was understood that the participants gave more space to their impressions about the distance education process (18) and less space to their opinions about the results of the process (7).

It was found that the most frequently expressed impressions of the participants about the compulsory distance education process were; the university's preparedness facilitated the process (4), inexperienced professors adapted by consulting, trying and failing (4), inexperienced professors floundered while experienced professors adapted quickly (3), the rectorate did not provide sufficient training and support to the professors (2), student motivation decreased due to the fact that it was a compulsory choice (1) and the lack of interaction was disturbing (1). Examples of the participants' impressions about the distance education process, which was compulsory, are as follows:

> "*Since distance education was suddenly introduced under emergency conditions, lecturers and faculty members initially faltered due to inexperience. Professors close to technology adapted quickly. The lecturers who were distant from technology adapted to the system and the conditions of distance education by trial and error and by asking those in the know*." Participant 1

> "*In this process, the university administration left the lecturers very alone. Many lecturers had never used the Mergen learning portal and did not know what to do; we tried to teach by learning other applications such as Zoom from different channels. There was an important experience in the Open Education Faculty, but this experience was not shared with other faculties. The Rectorate took the initiative and did not support their professors with trainings on how to do distance education*". Participant 5

"I think our university has been involved in this process in a very practical way in line with its knowledge and experience. In other words, the infrastructure was already in place, the process continued without a hitch. There was an easy-to-use interface. Or, thanks to the trainings provided, the process could be managed well and the teaching staff was able to keep up with such a critical paradigm shift. My impression of the process was that it was easy to adapt". Participant 13

It was observed that the participants shared their opinions about the results of distance education as well as their impressions about the compulsory distance education. In their evaluation of the results of distance education, the participants emphasized that everyone improved themselves due to the compulsory distance education (3), prejudices about distance education were destroyed after the compulsory distance education (1), the importance of distance education was understood (1), it was seen that they were ready for unusual situations (1) and the necessity of being ready for innovation and change at any time was understood (1). Examples of the participants' impressions about the results of the compulsory distance education process are as follows:

"*Extraordinary circumstances such as the pandemic and earthquakes have made distance education necessary. The applications that were implemented quickly due to necessity broke down the prejudices about this issue and showed that the infrastructure was actually prepared for these extraordinary situations, even if there were minor disruptions for distance education*". Participant 3

"*I think there are variable results depending on the instructor, the course and the course materials. I think that those who use, manage and control distance education systems have improved their practical skills about the system*". Participant 7

"*Both many academics individually and the management of the units and the university more inclusively were able to adapt to the new situation quickly and effectively. This has given a concrete example of how the institution as a single entity and the academics who contribute to the institution can show a reflex towards a solution*". Participant 10

Methods of Adapting to Different Conditions of Distance Education and Providing Motivation

Despite various restrictions during the pandemic and after the earthquake, it was determined that academics made efforts to overcome the difficulties they faced.

Table 6.

Methods of Adapting to Different Conditions of Distance Education and Providing Motivation

Theme	Code	Participant	f	Total
Difficulties	Lack of motivation	P1, P4, P6, P10, P11, P12, P13, P15	8	13
	Inability to communicate mutually	P1, P13	2	
	Low student participation	P4	1	
	Universities' lack of readiness	P5	1	
	Universities' lack of providing educational and material support	P5	1	
Methods to overcome difficulties	Teachers' dedication to education	P6, P7, P8, P9, P10, P12	6	23
	Learning tools and usage	P5, P7, P8, P10, P13	5	
	Improving the quality of the course	P9, P10, P13, P15	4	
	Encouraging students	P6, P7, P12, P14	4	
	Obtaining materials from relatives	P5, P8	2	
	Purchasing materials with one's own money	P9, P10	2	
	Adapting to working from home	P2, P11	2	
	Working from office	P2, P3	2	
	Using previous experiences	P3	1	

In response to the question "*Can you explain how you adapted to the different and unusual conditions that made distance education compulsory and your motivations by giving examples?*", it was understood from the answers given by the participants that this question can be analyzed in two sub-themes and these themes are the themes of difficulties and methods of overcoming difficulties. It was observed that the participants' opinions about the methods of overcoming difficulties (23) were more numerous than their opinions about the difficulties (13).

It was determined that the most prominent difficulty experienced by the participants during the compulsory distance education period was the lack of motivation. It was understood that the participants had difficulty in motivating themselves to distance education, which they were not familiar with and had different functions. Other difficulties experienced were found to be the inability to establish mutual communication, low student participation, unpreparedness of universities, and the lack of support from universities in terms of training and materials. Examples of the participants' opinions about the difficulties they experienced during the compulsory distance education period are as follows:

"*I had difficulty in being motivated because I could not communicate with the students. I can say that the situation was similar for the colleagues I know from my close circle*". Participant 1

"*My brother works at a foundation university; his faculty prepared training videos for young people. With their videos and his guidance, I learned how to use Zoom and thus overcame the process. My own university made no motivational contribution to these processes. Crisis management was not practiced institutionally in any way. However, there are universities that are very successful in crisis management. My main motivation was the desire not to leave my students alone in this process as a faculty member. It was both to contribute to their education and to do what I could do as their teacher. This is a purely subjective effort; it is important and necessary for our university, especially the senior management, to face the paralysis and paralysis in this process*". Participant 5

"*Honestly, at first, I was not motivated like everyone else, but over time I normalized the process within myself. I looked for ways to be more interactive with the students. Chatting at the beginning*

of the lesson and adding visuals to the presentations for an interesting narrative. We also learned a lot from each other as instructors. I think this is another way to be motivated". Participant 13

It was found that the participants used a number of methods to overcome the difficulties they experienced during the compulsory distance education period and to adapt to it. The most prominent of these methods were found to be the professors' dedication to education (6), their knowledge of distance education tools and how to use them (5), increasing the quality of the course to make it interesting (4), and constantly encouraging the students to engage them in the course. In addition to these, it was also observed that the methods of obtaining materials from relatives, purchasing materials with their own money, adapting themselves to working from home, using the office to study and benefiting from their previous experiences were also used. Examples of the participants' views on the methods of overcoming the difficulties they experienced during the compulsory distance education period are as follows:

"*I was able to adapt because I preferred to have an open communication. If I had preferred the I am the all-knowing lecturer approach, my situation might have been difficult. When necessary, I did not hesitate to get help from the support system, my colleagues, assistants and students, which helped me adapt. My motivation was my approach that I am not only teaching, I am also learning new things*". Participant 8

"*First of all, by investing in technology, I bought an ipad and a well-equipped camera, a professional sound system and a backdrop curtain to be used during the shootings. When my live lessons and recordings I made on the system were of high quality, I was praised and appreciated by my students, which increased my motivation*". Participant 9

"The *fact that I easily adapted to the home environment, where I felt the most comfortable, safe and comfortable outside of the places where I taught, contributed to the quality of my work during teaching. This definitely increased my motivation*". Participant 11

Methods and Tools Used in Distance Education Courses

Attention was drawn to the elements that academics who had to adapt to the distance education system and method started to gain experience in this learning style.

Table 7.

Methods and Tools Used in Distance Education Courses

Theme	Code	Participant	f	Total
Tools used	Camera and microphone	P1, P6, P9, P15	4	5
	University's distance education portals	P3	1	
Sharing	Videos	P4, P6, P7, P12, P13, P14	6	16
	Power Point presentations	P4, P5, P11, P12	4	
	Files	P3, P12, P14	3	
	Images	P6, P7	2	
	Screen share	P3	1	
Methods	Online lectures (Zoom and Mergen (Canvas))	P5, P9, P10, P11, P14	5	16
	Announcement of course hours and content in advance	P4, P12	2	
	Assignments	P4, P13	2	
	Student-instructor and student-student interaction	P6, P14	2	
	Providing timely and detailed feedback	P4	1	
	Organizing a discussion	P13	1	
	Student presentations	P13	1	
	Encouraging students' individual learning	P8	1	
	Improving the course material	P1	1	

In response to the question "*Can you explain the elements used in your courses conducted in online environments within the scope of distance education?*", it was understood from the answers given by the participants that this question can be analyzed in three sub-themes and these themes are the themes of tools, sharing and methods. It was observed that the frequency of repetition of the opinions about sharing (16) and methods (16) was higher than the frequency of the opinions about the tools used (4).

It was observed that the most frequently used tools in distance education were camera and microphone (4). The distance education portal of the university was also mentioned as a tool used. It was determined that the participants frequently shared in distance education and the most frequently shared tools were videos (6), Power Point presentations (4), files (3), visuals (2) and screen sharing (1). It was determined that the participants used different methods to increase the interest in distance education courses and to keep students alive and the most frequently used methods were; live lectures (5), announcing the course time and content in advance (2), assigning homework (2), providing student-instructor and student-student interaction (2), providing timely and detailed feedback to students (1), organizing discussions (1), making presentations (1), encouraging students' individual learning and enriching the course material. Examples of the participants' opinions about the elements they use in distance education courses are as follows:

"*I benefited from two separate portals, audio devices, image transfer devices, screen sharing and file sharing elements created for the distance education infrastructure of the institution I work for, for formal and distance education students*". Participant 3

"*The presentation I prepared, the video recording of the lesson, the announcements I made before the lesson (1 day before the lesson) about the topic to be covered in the lesson and the lesson time and link, reading the assignments I gave to the students word by word, giving them feedback in review format, giving them the opportunity to improve their assignments, and grading the latest versions have been a very good teaching method I have experienced*". Participant 4

"*With a conscious approach, I tried to use not only the texts I prepared for the course content, but also visuals, videos and graphics frequently in my online courses*". Participant 7

"*For each of my lessons, I identified the resources that my students could read and shared them with them. I made constant announcements about the course and provided guidance. I shared my lecture presentations. Unfortunately, students' participation in live lectures was low. They could follow the recordings of the lectures on the system later. Nevertheless, I used all the possibilities of the online environment to convey my course content. I shared the theoretical aspects of my courses more easily in the online environment. Maybe we could have done the practical graduation projects more efficiently face to face. However, we still benefited from the technological support of distance education. Presentations, slides, article pdfs, interesting videos related to the courses can be used as auxiliary elements*". Participant 12

"*Sharing notes, sharing videos, creating discussion topics and assignments, making presentations*". Participant 13

Difficulties Encountered During Distance Education

Distance education has drastically changed the use of resources utilized in traditional face-to-face education. In this direction, various challenges have become inevitable.

Table 8.

Difficulties Encountered During Distance Education

Theme	Code	Participant	f	Total
Instructor-related difficulties	Lack of knowledge/experience about the system	P4, P5, P6, P9, P15	5	10
	Feeling of being restricted	P4, P13	2	
	The necessity of psychological preparation before the lecture	P4, P13	2	
	The need for self-motivation and self-discipline	P6	1	
Student-related difficulties	Low student attendance/participation	P2, P8, P10, P12, P13	5	6
	Difficulty attracting students' attention	P10	1	
Other difficulties	Limited interaction	P2, P6, P7, P8, P9, P13	6	19
	Lack of technology	P1, P3, P11, P12, P13, P14	6	
	Lack of hardware/equipment	P1, P3	2	
	Lack of university's support	P8, P9	2	
	Systems are not user friendly	P1, P9	2	
	Difficulty in fair assessment	P7	1	

In response to the question "*Can you tell us about the difficulties you encountered during the adaptation of online learning environments to the transition to compulsory distance education?*", it was understood from the answers given by the participants that this question can be analyzed in three sub-themes and that these themes are the themes of instructor-induced difficulties, student-induced difficulties and external-induced difficulties. It was found that the participants expressed the most external (19), educator (10) and student (6) difficulties, respectively.

It was determined that the instructor-related difficulties encountered by the participants during compulsory distance education were; lack of knowledge/experience about the system (5), the feeling of being restricted (2), the necessity of psychological preparation before the course (2) and the necessity of self-motivation and self-discipline (1). Examples of the participants' opinions about the instructor-related difficulties they encountered during distance education are as follows:

"*I did not know how to use channels such as Teams, Mergen and Zoom*". Participant 5

"*Since I was unfamiliar with online learning environments, even though I could use the technologies, I had difficulties because I did not know the functioning structure. For example, I thought I was uploading course material. With the warnings of my students, I was aware that I did not open it for student sharing and I could complete the process I was doing*". Participant 7

"Psychologically, being recorded could be a bit unsettling at first. Because this was something we were not used to in face-to-face education. In the classroom, we could communicate more intimately and comfortably face to face. They didn't turn on the camera and it was really bad sometimes to feel like I was lecturing into a vacuum. Sometimes I wanted to be affirmed and to be listened to. On the technical side, connection problems could affect us. Students sometimes used this as an excuse and did not attend the class". Participant 13

It was determined that the student-related difficulties encountered by the participants during compulsory distance education were; low student participation (5) and difficulty in attracting students' attention (1), respectively. Examples of the participants' opinions about the student-related difficulties they encountered during distance education are as follows:

"*I can talk about difficulties due to institutional problems. Although distance education is supported by my institution and possible problems are tried to be overcome, I believe that the same situation is not valid for the whole country. The effectiveness of online learning environments and the inadequacy of participation rates in these learning environments were the general problems we faced as academics*". Participant 8

"*The most important challenge was to get the student to participate first and to get the participating student to pay attention to the lesson*". Participant 10

It was observed that the external difficulties encountered by the participants during compulsory distance education were; limited interaction (6), insufficient infrastructure (6), insufficient hardware (2), insufficient support from universities (2), systems not being user-friendly (2) and difficulty in fair evaluation (1). Examples of participants' opinions about the external difficulties they encountered during distance education are as follows:

"*Tools such as internet, computers and cell phones are not of the same quality. The technological infrastructure in universities across the country is not of the same quality. The systems that are the result of the mandatory distance education applications are not user-friendly*". Participant 1

"*The problems encountered in adapting to the system and the difficulties in communicating interactively with the students consumed our energy. In addition, no additional resources were provided to the lecturers*". Participant 9

"*During the distance education process, I realized after the pandemic and earthquake, I had difficulties due to insufficient internet connection and power outages at some times*". Participant 11

Overcoming Problems Encountered During Distance Education

Distance education has faced the challenge of reaching an increasing number of learners and serving the society. Due to its critical position, it has tried to be solution-oriented by recognizing the internal problems and overcoming them.

Table 9.

Overcoming the Problems Encountered During Distance Education

Theme	Code	Participant	f	Total
Lecturer-oriented solutions	Struggling with oneself, being selfless	P6, P10, P12, P14	4	8
	Self-development	P7, P13	2	
	Consultation with close acquaintances in case of lack of information	P4, P5	2	
Student-oriented solutions	Frequent online one-on-one interaction	P4, P13, P14	3	11
	Informing students fully and completely	P7, P11	2	
	Giving students different assignments/activities	P4, P13	2	
	Q&A to attract student attention	P3	1	
	Using engaging content	P15	1	
	Encouraging and motivating students	P14	1	
	Taking a student-based approach	P8	1	
Other solutions	Working from office to overcome technological difficulties	P3	1	4
	Preparing alternative solutions to technological difficulties	P4	1	
	Compensating for lack of hardware/equipment by own means	P9	1	
	Assignment of technical support team by the university	P11	1	
Solution	Lack of solution	P5	1	1

In response to the question "*Can you explain how you overcome systemic or participant-induced problems during your daily experiences, taking into account your professional experiences?*", it was understood from the participants' responses that this question can be analyzed in 4 sub-themes and these themes are educator-oriented solutions, student-oriented solutions, external factors-oriented solutions and inability to find solutions. It was determined that the participants used the most student-oriented (11), educator-oriented (10) and external factors-oriented (6) solutions respectively. It was observed that one participant (P5) could not find a solution to the problems encountered during distance education although he tried to find a solution.

It was determined that the educator-oriented solutions that the participants produced against the problems they encountered during compulsory distance education were; struggling with themselves against problems and being self-efficient (4), completing their deficiencies by improving themselves (2) and filling their knowledge deficiencies by consulting their relatives (1). Examples of the participants' opinions about the educator-oriented solutions they produced against the problems they encountered during distance education are as follows:

> "*I also asked about systemic problems to people I could get support from when I did not have problems with the system. For example, if I had a systemic problem that prevented me from opening the course on time, I overcame it by taking the course recording at a different time, uploading it to the system, and ALWAYS presenting these recordings to the student. It should always be taken into consideration that just as I may have problems as a teacher, the student may also have problems during the course. I think the good thing about distance education is that it creates options for overcoming barriers*". Participant 4

> "The *most prominent problem caused by the participant individuals in the distance education process was not taking responsibility. I believe that the effort I spent was ignored. More precisely, as*

academics, we spent more effort while adapting the content of our courses to the conditions of online learning environments during and after the pandemic. We allocated extra time". Participant 12

"*I tried to increase participation by increasing interaction with students. I learned to cope with systemic problems and found faster solutions. I tried to use technology more actively. I included activities to increase interaction. Discussion topics, assignments. I resorted to some obligations (presentation and class participation)*". Participant 13

It was determined that the student-oriented solutions that the participants produced against the problems they encountered during compulsory distance education were; frequently interacting with students live and one-to-one (3), informing students fully and completely (2), giving students different assignments/activities (2), using the question-answer technique to collect student attention (1), using interesting content (1), encouraging and motivating students (1) and adopting a student-based approach. Examples of the opinions of the participants about the student-oriented solutions they produced against the problems they encountered during distance education are as follows:

"*Because I improved my digital skills, I was able to provide digital guidance to my students. For my students who are more cautious with the technology in the system, I uploaded help modules where I guide them on what to do step by step, how to access the course content I uploaded and how to upload the assignments I asked for*". Participant 7

"*I provided interactive meetings, held student meetings on Zoom, identified their problems and tried to find solutions, tried to motivate students and frequently shared with them that the pandemic would end and we would see good days*". Participant 14

"*Students used to attend classes as they pleased because there were no sanctions. The attendance and absence criteria were abolished. Naturally, students did not attend classes. In a class of eighty students, only ten or fifteen attended. In order to attract students' attention to the lesson, I found interesting videos on Youtube and shared the link*". Participant 15

It was seen that the external factors-oriented solutions that the participants produced against the problems they encountered during compulsory distance education were; working from the office against infrastructure problems (1), preparing alternatives to infrastructure problems (1), eliminating hardware deficiencies with their own means (1) and assigning a technical team by the university (1). Examples of the participants' opinions about the external factors-oriented solutions they produced against the problems they encountered during distance education are as follows:

"*Although it was very rare in my lessons from home, I had problems with audio or video transmission. In order to avoid systemic problems, I usually tried to conduct my lessons in my office*". Participant 3

"*First of all, I am an academic who stands against the impositions imposed by the system. I overcame the problems caused by the system by purchasing the equipment I needed with my own means*". Participant 9

"*For academics and students who were not comfortable using technological elements, there were problems until they learned the structure of the system. I was helped by the system support team staff to overcome this*.". Participant 11

Advantages and Disadvantages of Distance Education

In the light of the experiences gained by academics in the distance education system due to the pandemic and earthquake, some of its advantages and disadvantages have been identified.

Table 10.

Advantages and Disadvantages of Distance Education

Theme	Code	Participant	f	Total
Advantages	No time or location limits	P9, P10, P11, P12, P13	5	18
	Ensuring the sustainability of education	P1, P5	2	
	Time saving	P13, P14	2	
	Being comfortable and convenient	P10, P13	2	
	Lectures being recorded	P9, P15	2	
	Being flexible	P12	1	
	Being economical	P12	1	
	Being effective with appropriate hardware/equipment and techniques	P6	1	
	Being open to development and innovation	P7	1	
	More suitable for the next generation	P8	1	
Disadvantages	Limited one-on-one interaction	P1, P3, P4, P9, P10, P12, P15	7	29
	Not suitable for applied courses	P1, P13, P14	3	
	Low student motivation	P3, P10, P15	3	
	Limited feedback from students	P4, P5, P12	3	
	Lack of equality in terms of hardware/equipment opportunities	P2, P4, P11	3	
	Lack of equality in terms of technological opportunities	P2, P11	2	
	Limited student attendance/participation	P4, P10	2	
	Course management is difficult	P11, P13	2	
	Unsuitable connection medium conditions for the course	P2	1	
	Educators not being motivated	P15	1	
	In-depth education is not possible	P5	1	
	Technical problems	P13	1	

In response to the question "*Can you evaluate the advantages and disadvantages of distance education compared to face-to-face education?*", it was understood from the answers given by the participants that this question can be analyzed in 2 sub-themes and these themes are the themes of advantages and disadvantages. It was observed that the participants mostly listed the advantages and disadvantages of distance education together while answering the question. However, it was seen that the opinions about the disadvantages of distance education (29) were more than the opinions about its advantages (18).

According to the views of the participants, the primary advantages of distance education are that it is not limited by time and space (5), it ensures the sustainability of education (2), it saves time (2), it is comfortable and convenient (2) and it can be followed or repeated at any time by recording the courses (2). In addition to these advantages, one participant mentioned that distance education is flexible, economical, open to development and innovation and suitable for the new generation. One participant also stated that distance education is effective when appropriate equipment and techniques are used. Examples of participants' views on the advantages of distance education are as follows:

> "*The only advantage of distance education is that it provides education on an ad hoc basis.*". Participant 1

"*As in the rearview mirror theory, I think that distance education is a more advanced, advanced and open to innovation form of face-to-face education applied before it. I would like to emphasize that distance education has more advantages in these aspects*". Participant 7

"*I think distance education is a learning environment that is more suitable for the technology addiction of the new generation in a sense. Distance education applications, systems, online environments represent the belonging environments of this generation at the same time*". Participant 8

According to the views of the participants, the primary disadvantages of distance education are limited one-to-one interaction (2), unsuitability for practical courses (2), low student motivation (2), limited feedback from students (2), lack of equality in terms of hardware facilities (2), lack of equality in terms of infrastructure facilities (2), limited participation in the course (2) and difficult course management (2). One participant each emphasized that the conditions of the environment where the course is connected are not suitable, instructors are not motivated, in-depth education is not possible and technical problems are experienced as disadvantages of distance education. Examples of participants' views on the disadvantages of distance education are as follows:

"Face-to-face education has almost traditional and taken-for-granted forms of practice. From the moment you enter the door of the environment where the lesson will take place, you can evaluate the interest of your students in the lesson from their faces, looks and body language. The lecture can be shaped accordingly. As a teacher, you can lecture more easily and diversify your examples thanks to reciprocities. Students can also participate in the lesson much more easily. On the other hand, even if the system conditions are improved in distance education, the same interactions cannot be achieved. For example, as a teacher, although we carefully prepared for our lesson and went to the system, reciprocity could not be achieved because our students did not turn on their cameras". Participant 4

"*Problems and inadequacies in the use of technology led to inadequate use of the possibilities of distance education. In addition, problems arising from the inability to control the student body also hindered the flow of the courses*". Participant 11

"*The disadvantages are too many. Communication is not established as it should be. Since communication is insufficient, students do not ask questions where they do not understand. The topics are covered much faster. Since academics have the feeling that they are talking to themselves to four walls, there are problems in teaching. There is no enthusiasm for lecturing and listening*". Participant 15

Suggestions on Communication Strategies and Interaction-Based Teaching Methods

It is important to understand the contextual situation of academics who are forced to engage in distance education. In order to encourage more egalitarian and reciprocal forms of communication, the suggestions of academics were taken.

Table 11.

Suggestions on Communication Strategies and Interaction-Based Teaching Methods

Theme	Code	Participant	f	Total
Lecturer-oriented suggestions	Course contents should be improved	P3, P13	2	11
	Trainers' skills should be elevated	P4, P5	2	
	Educators should be prepared for their changing roles by considering current developments and the future	P7, P11	2	
	Appropriate equipment that will increase interaction should be used	P12	1	
	Distance education should be planned with empathy for students	P2	1	
	Appropriate education techniques should be used	P9	1	
	Appropriate assessment and evaluation techniques should be used	P9	1	
	A specific solution must be found for applied courses	P13	1	
Student-oriented suggestions	Students should be trained in distance education	P8, P12, P15	3	5
	Sanctions should be introduced to increase control	P12, P15	2	
Other suggestions	Universities should support distance education and educators in multiple ways	P6, P15	2	8
	The number of students (admitted) should be decreased	P10, P15	2	
	Lessons to be learned from the pandemic and earthquake and be prepared for distance education	P1	1	
	User-friendly distance education systems should be	P13	1	
	Every region of the country should have equal internet access opportunity	P3	1	
	The fact that distance education will become more widespread in the future should be accepted	P11	1	

In response to the question "*What are your suggestions for future applications regarding communication strategies and interaction-based teaching methods that you think are unique to you?*", it was understood from the answers given by the participants that this question can be examined in 3 sub-themes and these themes are educator-oriented suggestions, student-oriented suggestions and external factors-oriented suggestions. It was found that the participants developed the most educator-oriented (11), external factors-oriented (8) and student-oriented (5) suggestions respectively.

According to the frequency of repetition of the instructor-oriented suggestions developed by the participants; enriching the content of the courses (2), increasing the skills of the instructors (2), preparing the instructors for their changing roles by thinking about current developments and the future (2), using appropriate equipment to increase interaction (1), planning distance education with empathy for students (1), using appropriate training techniques (1), using appropriate assessment and evaluation techniques (1) and finding a solution for applied courses (1). Examples of participants' views on educator-oriented suggestions are as follows:

> "*It is very important for every faculty member to renew themselves by being aware of the rapid development of technology. It is necessary to take online courses, not to stay away from Mergen, Zoom, etc. and to use the trial-and-error method"*. Participant 5

> *"In distance education and online learning environments, the tasks and roles of academics have changed. The lecturer is no longer the person who presents knowledge and controls the process. On the contrary, he/she should be able to get out of this position and be the one who encourages, monitors, facilitates the learning process and prepares the learners to be active participants. I aimed to ensure this*". Participant 7

"*In distance education, new and interactive technology applications can be utilized to encourage students to participate in the course.*". Participant 12

According to the frequency of repetition of the student-oriented suggestions developed by the participants; it was determined that students should be educated about distance education (3) and sanctions should be introduced to increase control (2). Examples of participants' views on student-oriented suggestions are as follows:

"In distance education, new and interactive technology applications can be utilized to encourage students to attend classes. The systems used by universities in distance education should have warning mechanisms. If the student does not attend the class under predetermined conditions; if he/she does not turn on his/her camera and microphone, he/she should be warned that he/she is not attending the class and should do what is necessary. Otherwise, they should be removed from the system in the tenth minute. I would like to emphasize that such practices should be developed and put into practice immediately. This situation is essential as it puts the communication between the teacher and the learner on the basis of reciprocity. It will definitely increase the efficiency of online courses conducted within the scope of distance education". Participant 7

"In order to ensure that university students can benefit from online environments and activities properly, necessary regulations as well as awareness-raising activities should be carried out. Thanks to these regulations and studies, it may be possible to contribute to the development of children and young people and reduce risks with policies that direct them to positive online experiences." Participant 8

"*If lectures are held with a small number of students in an environment similar to chat rooms, where students' cameras and microphones are always on, efficiency can be ensured and increased. Of course, universities should also provide the teaching team with the equipment to be used in the courses*". Participant 15

According to the frequency of repetition of the external factors-oriented suggestions developed by the participants, it was determined that the universities should support distance education and trainers in many ways (2), the low number of students in distance education classes (2), taking lessons from the pandemic and earthquake and being prepared for distance education (1), using user-friendly distance education systems (1), making every part of the country equal for internet access (1), and accepting the fact that distance education will become widespread in the future (1). Examples of participants' views on suggestions focused on external factors are as follows:

"*My only suggestion is that we learn from what happened in the transition to compulsory distance education and move on. We should not have a fish memory like in other incidents*". Participant 1

"*Internet infrastructure needs to be improved. This is especially important for individuals living in rural areas*". Participant 3

"One of the most important components of distance education and online learning environments is the teaching staff. In other words, academics have important functions in the success of the environment. Therefore, universities, with their institutional support, should be able to provide all the support they need for lecturers who want to provide distance education and online education". Participant 6

The findings of the study show that the most prominent problem of compulsory distance education, which was introduced due to the Covid-19 pandemic and the February 6 earthquakes, is unpreparedness. Since it is seen that universities experience difficulties because they are not ready for distance education in terms of infrastructure and facilities, academics in terms of knowledge and experience, and students in terms of knowledge and motivation, readiness for distance education should be improved in a multidimensional

way. It is understood that distance education will take place much more in educational activities depending on technological developments. It is thought that artificial intelligence applications will carry this process to an advanced point. Depending on these developments, it can be said that it would be useful for both universities and academicians to prepare themselves comprehensively for the technological opportunities offered by distance education.

4. Conclusion and Suggestions

In the study, the opinions of academics who experienced the mandatory distance education practice due to the Covid-19 pandemic and the February 6 earthquakes were included. When the connotations of open and distance education were examined, it was concluded that the positive connotations expressed with words such as flexibility, necessity, equality, innovation, usefulness, unrestrictedness and technology were higher than the negative connotations expressed with words such as uncertainty, helplessness, distance, low participation, inefficiency and difficulty in learning. Similarly, the academics stated that the leading contributions of distance education are: providing access to education especially for disadvantaged individuals due to distance and time, ensuring the sustainability of education, reducing the cost of education for students and trainers, and the inevitable increase in the use of technology in education as a result of the existing developments. Academics listed the negative aspects of distance education as limited one-to-one interaction, not suitable for applied courses, low student motivation, limited feedback from students, lack of equality in terms of hardware and infrastructure facilities, limited participation in the course, and difficult course management. It is seen that the findings of the studies on the positive and negative aspects of distance education are consistent with the findings of previous domestic and foreign studies in the literature.

It is understood that previous studies have pointed out that distance education has positive aspects such as ensuring the sustainability of education, providing flexibility, providing easy access to information, providing convenience and comfort for students and academics (Afşar & Büyükdoğan, 2020; Keskin & Özer Kaya, 2020; Bakioğlu & Çevik, 2020; Kurt, Kandemir, & Çelik, 2021; Yurtbakan & Akyıldız, 2020; Francom et al., 2021; Urhanoğlu, Bayırlı, & Aslan, 2021; Çakır et al., 2023). Again, in line with the findings of this study, it is seen that previous studies have emphasized that distance education has some negative aspects such as not being suitable for communication and socialization, not being suitable for practical training, and not providing motivation for students and teachers (Afşar & Büyükdoğan, 2020; Bakioğlu & Çevik, 2020; Aktaş et al, 2020; Metin, Gürbey, & Çevik, 2021; Arık et al., 2021; Karadağ-Yılmaz, Savaş, & Kalkan, 2022; Erdoğdu & Atabay, 2023; Çakır et al., 2023; Fıratlı Türker, 2023; Erdoğdu & Atabay, 2023; Yağız, 2023; Koçer & Koçak, 2024).

It was determined that academics made negative and positive evaluations for the two compulsory distance education practices they experienced due to the Covid-19 pandemic and the February 6 earthquakes. Negative evaluations were mostly clustered around the views that the quality of education was low, interaction was limited and distance education was not suitable for education. The most prominent positive evaluation was the realization that distance education is a necessity in extraordinary times such as pandemics and earthquakes. When the details of the two experiences were examined, it was understood that the problems emerged less and were solved in a short time due to the preparedness of the universities for distance education practices. In this process, it was seen that academics necessarily developed themselves in distance education, gained new knowledge and experiences by making efforts, experienced academics adapted to the process more easily, but inexperienced academics had difficulties. However, the inexperienced ones were able to reach the desired results by consulting those who knew better and seeking solutions on their own. The findings of previous studies are in line with these findings. Previous studies have also shown that teachers have motivation problems (Churiyah et al., 2020; Alea et al., 2021; Kruszewska et al., 2022; Erdoğdu & Atabay, 2023; Çakır et al., 2023), teachers with no experience in distance education have more difficulties (Rapanta et al, 2020;; Dolighan & Owen, 2021), but it has been found that teachers are aware of their deficiencies and acquire the necessary knowledge and equipment by making sacrifices and sacrifices (Dietrich et al., 2020; Lie et al., 2020; Marek et al. 2021).

It was determined that academicians faced many different challenges during the mandatory distance education implementation period due to the Covid-19 pandemic and the February 6 earthquakes. It was observed that these challenges arose due to instructor, student and external resources. It was found that the most prominent instructor-related challenge was the lack of knowledge and experience in distance education technologies. It was determined that the most prominent of the student-related difficulties was the low participation of students in the course. The most prominent external challenges were found to be the lack of adequate infrastructure for distance education and the fact that distance education restricts interaction. Although the challenges of distance education have not been categorized in this way in previous studies, it has been pointed out that similar challenges are experienced. Studies have pointed out that instructors lack knowledge and experience in distance education (Churiyah et al., 2020; Dolighan & Owen, 2021; Paliwal & Singh, 2021), there are infrastructure and technical problems (Bdair, 2021; Kruszewska et al., 2022), and there are communication and socialization problems in distance education (Kulikowski et al., 2022; Kruszewska et al., 2022; Fıratlı Türker, 2023).

It has been observed that academicians have difficulties in motivating themselves for distance education due to the unique technology-intensive and limited interaction opportunities of distance education and that they have problems in this regard. There is a need to identify the various problems faced by distance education providers, to determine the methods of overcoming these difficulties and to address the source of the work in order to improve the distance education system. For this reason, the current research has tried to show the potential of the educators behind the scenes. It was found that the academics came up with their own solutions to overcome this motivation problem and did not receive institutional support. In order to continue distance education with high motivation and efficiency, it was concluded that academics showed dedication to learn the details of distance education, started to use new tools, enriched the content of the course in an interesting way, interacted closely with students, communicated with them and constantly encouraged them. For this purpose, it was stated that academics mostly utilized tools such as camera, microphone, videos, slides and other visuals in live lessons. These findings are also supported by the literature. It is also stated by previous studies that instructors are not sufficiently supported by their institutions (Lie et al., 2020; Dolighan & Owen, 2021; Marek et al., 2021), but those instructors make efforts by prioritizing the education of students with dedication and sacrifice (Dietrich et al., 2020; Lie et al., 2020; Marek et al. 2021).

The most frequently repeated suggestions put forward by academics to increase the effectiveness of distance education are that students should be trained in distance education, universities should support academics in a multifaceted way in distance education, infrastructure and technical equipment should be made adequate and appropriate for distance education, course content should be enriched, distance education skills of academics should be improved, and preparation for the future of distance education should be made in parallel with the developments in technology. It is seen that the suggestions of previous studies for the development of distance education are parallel to those in this study. In order to improve the quality of distance education, it was suggested that it should be student-centered, teachers should be prepared, it should be designed in accordance with pedagogical requirements, a support system should be established for distance education, attention should be paid to the social, cognitive and facilitative aspects of distance education, institutions should develop standard guidelines for distance education, and students' self-regulation skills should be increased (Churiyah et al., 2020; Lie et al., 2020; Rapanta et al., 2020; Francom et al., 2021).

In this study, the opinions of academics about the mandatory distance education practice that was introduced due to the Covid-19 pandemic and the February 6 earthquakes were examined and important findings were obtained. This research is limited to 15 academicians working in three different universities in a province. The information and findings obtained are limited to the questions in the interview form prepared by the researcher as a measurement and evaluation tool directed to the academics and the answers received from the volunteer participants and the year 2024. The findings of the study should be interpreted by taking these limitations into consideration. Research examining the opinions of academics about distance education should be conducted more frequently. Distance education is a phenomenon that is constantly

changing and renewed depending on technologies. For this reason, continuous repetition of research in this field will contribute to the field.

Universities, which are the implementers of higher education, may be advised to increase their internet connection capacity to reach more users at the same time. As with students, academics should also be supported with technological opportunities. In addition, students should be obliged to attend live classes. The development of technological systems should be supported in order for academics to realize distance education smoothly and to prevent interruption of educational activities. Thus, communication problems can be eliminated. It is thought that courses on distance education can be given throughout the country to solve the problems encountered in distance education practices experienced in the distance education process. In-service training programs can be organized for academics. After the pandemic, the number of universities benefiting from distance education practices increased. These institutions have distance education centers, UZEMs for short. The work of UZEMs, where education is carried out in all universities, should be examined comprehensively. Eskişehir Anadolu University, which developed and implemented the open education model, is a pioneer in Turkey in this regard. The open education system, which has been offered as an alternative to the formal education system for many years, has developed educational opportunities not only within the borders of the country but also with its offices abroad, especially for Turkish citizens. The unions that universities with experience in open and distance education will establish by bringing together academics selected from their own bodies can create an important and valuable source of experience for academics in other universities.

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