Students' Opinions on Distance Education: The Pandemic and Before

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ABSTRACT

In this study, it was aimed to examine the opinions of university students regarding distance education before and during the pandemic. This research was designed as a qualitative case study. The participants in the research included 64 students, 37 of whom were enrolled before the pandemic, and 27 during the pandemic period. They were all students at the Faculty of Education of a state university in Turkey and were enrolled in the "Open and Distance Learning" course during the fall and spring semesters of the 2019-2020 academic year. To collect data for this study, researchers used a form consisting of open-ended questions. The study found that university students experienced a greater lack of a social environment during the pandemic period. They also encountered more technical problems and faced shortages of digital tools compared to the pre-pandemic period. Furthermore, unlike the previous period, university students reported that they had less personal time, experienced issues with measurement and evaluation, had prolonged screen time, experienced unplanned distance education, lacked active participation, did not receive immediate feedback, and had difficulty managing their studies. As a result of the research, it was determined that there were more positive opinions about distance education before the pandemic and more negative opinions during the pandemic period. Additionally, this study highlights the differences between distance education and emergency remote teaching.

Keywords:
Pandemic, pre-pandemic, distance education, emergency remote teaching, covid 19

INTRODUCTION

Today, developments in information and communication technologies are rapidly being reflected in the field of education as in every field. With developments in technology, education has ceased to be dependent on time and place, and individuals have the opportunity to receive education whenever and wherever they want through distance education. Although distance education initially emerged as a tool to provide education to students who were at school age but could not go to school for various reasons, adults without the opportunity to go to school when they were at school age, and individuals with special needs (Koşar et al., 2002), it has now become a necessity in all education levels.

Although the first applications of distance education started in the 1700s, the term "distance education" was first encountered in the 1892 catalog of the University of Wisconsin (Kaya, 2002). In the following years, this term was used in many places and many definitions were made on distance education. In one of these definitions, Allen and Seaman (2017) defined distance education as an educational activity that uses one or more technologies to provide education to students who are in separate places with their teachers and to support a regular interaction between teacher and student, synchronously or asynchronously. Özkaya (2013) explained the common features in the definitions of distance education in the literature as follows: teacher and student being separate in terms of time and place, use of communication technologies, flexibility, having an institutional structure, not requiring a specific age and education level, special tools, methods, and use of techniques. Due to these features, distance education has become widespread and has become an alternative to formal learning (Akgün et al., 2013; Toker-Gökçe, 2008).

Seaman, Allen, and Seaman (2018) stated that at the end of 2016, more than 6 million students in the United States were enrolled in at least one distance education course, and this rate increased by 5.6% compared with the previous year's data. In the same study, it was stated that 31.6% of the students attending higher education attended at least one distance education course. Looking at these rates, it can be said that the use of distance education in higher education institutions has become widespread.

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Similarly, a study conducted in 2015, it was stated that distance education is mostly used in higher education (Çakır & Horzum, 2015). In 2020, this situation changed because of the transition to distance education with the effect of the pandemic, and distance education began to be widely used at all levels of education.

The new type of coronavirus (COVID-19), which emerged at the end of 2019, affected the entire world in a short time and was declared a pandemic by the World Health Organization (WHO) on March 11, 2020 (WHO, 2020). After this date, all people in the world have passed into an order that they are not accustomed to. The global outbreak has affected people's lives in many ways and has caused changes in their lives. The WHO (2020) has announced that measures should be taken to limit contact between people in order to reduce the transmission of the outbreak, and various measures have been taken against the virus all over the world. As part of these measures, people had to stay at home, work from home, and continue their education remotely. Following the detection of the first COVID-19 case in Turkey on March 11, 2020, a 3-week break was suspended for training on March 16, 2020. Later, with the increase in the number of cases and the understanding of the effects of the pandemic, all educational activities from pre-school education to graduate education started to be conducted remotely. The Council of Higher Education of Turkey (CoHE) also made new regulations within the scope of combating the pandemic during this period. To prepare universities for future processes, to encourage and support the use of digital opportunities in terms of distance education and teaching, in the case of face-to-face education, it has added the target of conducting up to 40% of the courses remotely, with a minimum of 10% in formal programs at associate, undergraduate, and graduate levels (CoHE, 2020). Therefore, considering that it will affect the increase of the outbreak, all universities decided to continue distance education in the 2020–2021 academic year. Bozkurt (2020) states that it is important to use the concept of emergency remote teaching for the education carried out in this period to prevent misuse of concepts and to reduce negative attitudes towards distance education. Unlike distance education, emergency remote teaching is defined as a compulsory and need-oriented application that is conducted online and/or offline so that education is not interrupted during crisis periods (Bozkurt, 2020).

Distance education has become an integral part of the system with the effect of the transition to distance education at all levels during the pandemic period. This situation has increased the number of students who prefer distance education, especially in higher education after the pandemic. Therefore, it is important to examine the views of university students toward distance education.

When the literature is examined, it is seen that there are studies conducted in the world and in Turkey during the COVID-19 period and examining the opinions of students on distance education. There are negative opinions in these studies about distance education, such as that students have difficulty in attending classes due to economic and technical reasons (not having technical devices and internet access, high cost of mobile internet packages, lack of skills in using technical devices, inability to access learning materials, etc.) (Dutta & Smita, 2020; Hall et al., 2020), they prefer face-to-face education instead of distance education (Adnan & Anwar, 2020; Aguilera-Hermida, 2020; Keskin & Özer-Kaya, 2020; Serçemeli and Kurnaz, 2020), they need face-to-face interaction (Adnan & Anwar, 2020; Aguilera-Hermida, 2020), and they expect to return to face-to-face education after the pandemic (Serçemeli & Kurnaz, 2020). On the other hand, there are also positive opinions such as flexible working hours, being able to work whenever they want (Lall & Singh, 2020), and distance education being an alternative solution (Keskin & Özer-Kaya, 2020). In addition the concept of emergency remote teaching is mentioned in the literature, and the difference between this concept and the concept of distance education is mentioned. In this study, we investigated whether students' views on these two methods differ and in which aspects they feel different.

Situation of the Problem

Many studies have examined the opinions of university students on distance education during the pandemic period. However, studies addressing and comparing opinions on distance education practices before the pandemic (experienced by a limited number of students) and emergency remote teaching

practices during the pandemic period are limited. In this study, the opinions of university students on distance education before and during the pandemic are discussed.

Aim of the Study

The purpose of this research was to examine the opinions of university students on distance education before and during the pandemic. For this purpose, answers the following research questions were sought:

1. What are the opinions of university students about distance education in the pre-pandemic period?
2. What are the opinions of university students about distance education during the pandemic period?

METHOD

In this study, a qualitative case study design was used to determine the opinions of university students on distance education before the pandemic and emergency remote teaching during the pandemic period. A case study is a qualitative research approach in which one or more situations are examined in depth over time using more than one information source (Observations, interviews, audio-visual materials, etc.) and a situation and its themes are reported (Creswell, 2013).

Study Group

The participants of the study were determined by the criterion sampling method, which is one of the purposive sampling methods. The participants of the research are 64 students, 37 of whom are attending the pre-pandemic and 27 during the pandemic period, who study at the Faculty of Education of a state university in Turkey and attend the "Open and Distance Learning" course in the fall and spring semesters of the 2019–2020 academic year. Considering the research ethics, the names of the participants were not revealed. Instead, code names, such as S-1, S-2 … were given to each participant.

The participants of the study comprised 44 female (68.8%) and 20 male (31.3%) university students. Twelve (18.8%) participants had taken a distance education course at least once before. While 11 of the participants (17.2%) described their computer use level as advanced, 43 (67.2%) defined it as intermediate level and 8 (12.5%) as beginner level (2 students did not specify). When the time spent on the Internet was examined, 25 (39.1%) of the participants stated that they spent 1–3 hours, 29 (45.3%) spent 3–5 hours, and 9 (12.5%) spent more time on the Internet (1 student did not specify). Information about the departments of the participants is given in Table 1 (1 student did not specify the departments). When Table 1 is examined, the participants consisted of university students studying in different departments of the Faculty of Education.

Table 1. Departments of the participants

Department	*f*	%
Preschool Teaching	19	29,7
Elementary Mathematics Education	9	14,1
Classroom Education	9	14,1
Science Teaching	7	10,9
Turkish Language Teaching	7	10,9
Social Sciences Teaching	6	9,4
Guidance and Psychological Counseling	3	4,7
English Language Teaching	3	4,7
Total	63	100

Material

In this study, data collection involved the use of an interview form comprising open-ended questions, which was prepared by the researchers. The questions within the interview form were reviewed by two experts in Computer Education and Instructional Technology. The form covers the demographic information of the participants and their views on distance education. In the form, students taking the same course were asked to prepare a text containing their views on distance education. Data collection occurred

face-to-face during the pre-pandemic period, and online methods were used during the pandemic period. The collected data were then analyzed. Forms that were not filled out properly were excluded from the study, and the data obtained from 64 participants were included in the study.

Data Analyses

In this study, the data collected through face-to-face and online interactions were digitally transcribed for analysis. The researchers independently coded the data, and themes and sub-themes were generated on the basis of the resulting codes. Consensus was reached on both the themes and sub-themes, following established methodologies for qualitative data analysis (Creswell, 2013; Miles & Huberman, 1994).

Credibility

In qualitative research, the concept of credibility is employed as a counterpart to validity and reliability. Credibility pertains to the suitability of the research data and analysis process for the research objective (Graneheim & Lundman, 2004), as well as the researcher's endeavors to establish trust in the accurate interpretation of the data (Whittemore et al., 2001). Various measures are typically employed to enhance the credibility of qualitative research findings (Yıldırım & Şimşek, 2016). In this study, credibility was bolstered through a comprehensive data collection process and the use of direct quotations. Moreover, the coding of the research data and the development of pertinent themes were collaboratively conducted by different researchers. The study's reliability was assessed using the formula "Reliability = agreement / (agreement + disagreement) * 100," proposed by Miles and Huberman (1994), resulting in 100% agreement for the codes. Consensus was achieved for all codes and themes. In qualitative studies, a reliability level of 90% or higher between expert and researcher evaluations indicates the desired level of reliability (Miles & Huberman, 1994). In addition, participants' perspectives were represented through direct quotations. The study's validity was supported in various ways, including data collection by different researchers and the use of criterion sampling, a purposive sampling technique (Guba & Lincoln, 1982). Necessary permissions and approvals were obtained from participants in compliance with research ethics, and participants were informed of their right to withdraw from the study at any time (Creswell, 2013; Yıldırım & Şimşek, 2016). Furthermore, to ensure confidentiality, participants were assigned code names in accordance with personal data protection laws.

FINDINGS

Because of the analysis of the data obtained in this research, which was carried out to examine the opinions of university students on distance education before and during the pandemic period, two main themes as "Positive opinions" and "Negative opinions" and many sub-themes depending on these themes were determined.

Opinions on Distance Education in the Pre-Pandemic Period

In the research the opinions of the participants on distance education in the pre-pandemic period were examined. Table 2 presents the opinions of university students on distance education before the pandemic.

Table 2. Main and sub-themes of participants' opinions on distance education in the pre-pandemic period

Period	Themes	Codes	*f*
Pre-Pandemic	Positive opinions	Gaining technical/platform skills	20
		No time constraints - be flexible	14
		To be efficient	13
		Ability to watch lectures again - document/document sharing - presentation opportunity	9
		Psychological comfort - providing freedom - no attendance requirement	7
		Motivation: satisfaction, contentment, liking	6
		No need to go to school	3
		Providing instant feedback	2
	Negative opinions	Requires technology such as computer/internet, connection problems, replay problems, technical problems (sound etc.)	14
		Not like face-to-face training - lack of social environment	5
		Homework density (too much content)	4
		Mandatory simultaneous access	2
		Not effective	2
		Not suitable for practice courses	1
		Shortage of time	1

Table 2 shows the positive and negative opinions of university students about distance education in the pre-pandemic period. When the positive opinions were examined, it was determined that university students stated that distance education gave them experience about digital environments.

(S36): *"First of all, I learned about sites that I never knew. In the past, I used the computer more as social media. Thanks to this course, I learned a lot about the internet."*

(S24): *"Our lesson progressed very well. This was my first experience in distance learning for my university life. I think the course is very useful for me as I will use some experiences I learned in this course in my future life."*

(S19): *"I took the virtual course for the first time and it was a superb experience."*

(S13): *"…it made me use the computer and the internet more efficiently. I see myself far ahead of where I started in terms of the Internet and computers."*

It has been determined that university students have positive opinions on the flexibility and efficiency of distance education. The opinions on this matter are as follows:

(S20): *"The course was efficient for me. I took a distance education course for the first time. It was a great advantage for me to be able to enter the environment I wanted."*

(S35): *"…since learning occurs in a wider environment, there is more freedom and therefore better learning is achieved."*

(S9): *"…I really liked that distance education is accessible at any time and in any place. Easy access is a nice feature."*

Apart from these, there are also participants who stated that there is no obligation to continue in distance education, that there is the opportunity to watch the lessons again, and that it offers freedom and psychological comfort. The opinions of the participants are as follows:

(S23): *"I think distance education is more comfortable and easier. Lessons become more stress-free."*

(S35): *"Another beauty of this learning model is that I pass the exam without much stres"*
(S15): *"It made me feel more comfortable listening to my lesson from home and take the exam."*
(S8): *"…Adding the videos to the system later contributed to our better learning."*

When the negative opinions of university students in the pre-pandemic period were examined, they mostly stated that they experienced a lack of digital tools and technical problems. The opinions on this subject are as follows:
(S17): *"…I may have been affected because I have a weak computer command. It was a big problem that I could not log into the virtual classroom. I could not attend the class."*
(S37): *"I had a sound problem only in simultaneous lessons. Sometimes I couldn't hear the teacher's voice, or I heard very little."*
(S35): *"The only problem with this learning model is technical errors. Sometimes you can't attend the lesson on time, and there may be deficiencies in the images and sounds during the lesson."*

While most of the university students stated that it is not like face-to-face education and therefore, they lack a social environment, some of them evaluated the intense homework as a negative.
(S30): *"…I felt left behind in many subjects related to the course. And I couldn't fulfill the responsibilities that I had to fulfill. I learned most of it later than when I should have done it."*
(S23): *"I did not have a problem when the course was formal. However, I think that the remote teaching of the course makes it difficult for me."*
(S32): *"…the intensity of homework and quizzes forced me from time to time as I have many lessons and responsibilities outside this course."*
(S5): *"…I have a hard time doing homework. I don't think I did exactly what was asked of me. Because I don't fully understand what I must do…"*

Opinions on Distance Education during the Pandemic Period

In this part of the study, the opinions of the participants on emergency remote teaching applied during the pandemic period were examined. Table 3 presents positive and negative opinions of university students regarding emergency remote teaching during the pandemic period.

Table 3. Main and Sub-Themes of Participants' Opinions on Distance Education During the Pandemic

Period	Themes	Codes	*f*
Pandemic	Positive opinions	Ability to watch lectures again - document/document sharing - presentation opportunity	23
		No time constraints - be flexible	15
		Psychological comfort - providing freedom - no attendance requirement	6
		To be efficient	3
		Students are being active	2
		Gaining technical/platform skills	2
		Good and fair homework and grading	2
		Teachers effort	1
		Motivation: satisfaction, contentment, liking	1
		Different points of view	1
		No need to go to school	1
		Providing instant feedback	1
	Negative opinions	Requires technology such as computer/internet, connection problems, replay problems, technical problems (sound etc.)	20
		Not like face-to-face training - lack of social environment	9
		Shortage of time	5
		Homework density (too much content)	4
		Not effective	2
		Not suitable for practice courses	2
		Student management is difficult	2
		Lack of active participation	1
		Attendance obligation	1
		To be unplanned	1
		Not suitable for high-level skills	1
		Measurement/evaluation issues (Copy etc.)	1
		Not receiving immediate feedback	1
		Long screen time even when reduced	1
		Inability to take time for yourself	1

Table 3 presents positive and negative opinions of university students regarding distance education. It was observed that most university students positively evaluated the opportunity to watch the courses again. Here are some opinions on this subject:

(S42): *"I can access the course repetition whenever I want, and I can easily access a resource when I need to access it during the course."*

(S-53): *"It is a very nice feature to have the ability to watch the lesson later when we do not attend the lesson on time."*

Another feature positively stated by university students is the lack of time constraints, and flexibility in distance education. It was determined that university students expressed the following:

(S42): *"I feel better psychologically because the flexibility provided by distance education removes the restrictions in the classroom."*

(S52): *"There is no time and place limitation for the course."*
(S61): *"Space and time do not make any difference in terms of learning. This action occurs wherever and whenever we feel comfortable."*

Apart from these, there are also participants who stated that distance education offers psychological comfort and freedom and is efficient. The opinions of the participants are as follows:
(S42): *"I feel more comfortable when I don't have to commute between school and home every day. It feels more comfortable being able to get up and do something whenever I want."*
(S44): *"Distance education is more flexible and comfortable in terms of environment than formal education."*

When the negative opinions of university students during the pandemic period were examined, it was determined that they mostly experienced a lack of digital tools and technical problems. The opinions on this matter are as follows:
(S38): *"It is a big problem for those without internet and computer facilities."*
(S46): *"I get distracted because there are frequent problems with sound in the lesson."*
(S53): *"Frequently encountered technical errors in some courses. When the lesson that was not watched at that moment was opened for later viewing, the audio had no access in any way and remained as an unwatched lesson."*
(S55): *"There may be a problem with the internet, and when there is a problem with access, our entire education stops."*

During the pandemic period, while most of the university students stated that the education was not like face-to-face education and that they had a lack of social environment, there were also students who stated that the lesson times were short as a negativity. The opinions of the participants are as follows:
(S44): *"The only disadvantage is that it is not social like formal education."*
(S55): *"There are times when we cannot learn the answers to our questions in a short time, just like face-to-face."*
(S58): *"The negativity of distance education is that it does not necessarily have a feeling of interaction with the teacher and there is no interaction between students."*
(S61): *"Student– teacher communication in education is one of the biggest factors that I care about, but distance education has affected this communication very badly."*
(S48): *"The negative aspects of distance education are that the course durations are short and the subjects are too many."*

RESULT, DISCUSSION AND SUGGESTIONS

Many studies have shown the positive and negative aspects of distance education (Ateş and Altun, 2008; Başaran et al., 2020; Demiray, 2013; Duman, 2020; Yolcu, 2020). From this point of view, this study discusses how the positive and negative opinions of university students toward distance education were before and during the pandemic.

The positive opinions of university students about distance education before the pandemic were as follows: Gaining technical/platform skills, no time constraints, ability to watch lectures again, document/document sharing, presentation opportunity, psychological comfort, providing freedom, no attendance requirement, motivation, satisfaction/contentment / liking, no need to go to school, and providing instant feedback.

In a study on the distance education experience of formal learning students (Özgöl et al., 2017), in the interviews with the students, the students stated that the advantages of distance education are that it is easy to access, there is a lot of free time, it offers the opportunity to watch the lesson again, and the exams are easy. In a study conducted with pre-service teachers, being able to act independently of time and space, simplicity and intelligibility, student– student interaction, teacher– student interaction, and content richness emerged as the advantages of distance education (Hamutoğlu et al., 2019). In another study conducted with pre-service teachers, it is listed as advantages that it is beneficial in terms of time, place, and material, provides convenience, being able to access more information, is open to technology and innovations, can reach unlimited people at the same time, has unlimited repetition opportunities, and exam

results are immediately visible (Paydar & Doğan, 2019). Lei and Gupta (2010) listed the advantages of distance education for students as instructors' limited verbal communication, course flexibility and freedom to work at their own pace, reducing or eliminating commuting time to campus, limited peer distractions, limited nepotism from instructors, course materials from anywhere with an internet connection, easy access, constant access to course materials from anywhere with an internet connection, continuing education despite a busy schedule, experiencing less culture shock, helping students with learning difficulties and physical disabilities, and the development of various practical skills. In a study examining the opinions of students before and after distance education, the features of benefiting from experts, fast access to information, chance to see registered classes again and again, feeling more adaptable to the classroom, eliminating the lack of staff, and being more flexible and comfortable emerged after the distance education experience (Karal et al., 2011).

When the literature is examined, the positive features of distance education are similar. The most frequently mentioned positive features about distance education before the pandemic were gaining technical/platform skills (20 people), no time constraints, flexibility (14 people), efficiency (13 people), ability to watch lectures again, document/document sharing, and presentation opportunities (9 people).

When the positive thoughts of university students about distance education were examined during the pandemic period, it was seen that they had the opportunity to watch the lessons again - document/document sharing - presentation opportunity, no time constraints - be flexible, psychological comfort - providing freedom - no attendance requirement, to be efficient, students being active, gaining technical/platform skills, good and fair homework and grading, teachers' effort, motivation - satisfaction/contentment / liking, different point of view, no need to go to school, and providing instant feedback. The most frequently mentioned features by the students are being able to watch the lessons again, document/document sharing, the opportunity to make presentations (23 people), no time constraints, being flexible (15 people), and psychological comfort, freedom, and no attendance requirement (6 people).

In Dilmaç's (2020) study, students stated that distance education provides equal access to education for all students, advances in technology necessitate the use of education, digital resources reduce education costs, increase responsibilities, and bring equality to education as it allows students at different levels to access. Seyhan (2021), on the other hand, revealed that the teaching process of pre-service teachers has benefits such as learning independent of time and place, developing research, and reading and learning skills. In another study conducted during the pandemic period, the course process, continuing education at home, access to different tools, resource diversity, comfort, and self-control were listed as advantages (Hebebci et al., 2020). Koray and Pekbay (2022) stated in their study that distance education is effective with its features such as being intertwined with technology, being independent of time and space, and being in constant communication. Similarly, Şimşek and Akün (2022) stated that aspects such as easy course repetition/access, abundance of time, individual education environment, efficiency and easy course passing are positive features of distance education.

When the positive opinions on distance education before and during the pandemic were compared, it was seen that university students stated that the lessons were more effective before the pandemic and that they were more satisfied with distance education during this period. Before the pandemic period, while most of the university students stated that distance education gave them the opportunity to develop themselves and digital platform skills, only 2 university students stated this during the pandemic period. Unlike the pre-pandemic period, there were also university students who stated that distance education gave them a different perspective, teachers made great efforts, and homework/grading was fair during the pandemic period.

When the negative opinions about distance education were examined before the pandemic, students stated that they required technology such as computer/internet, connection problems, replay problems, technical problems (sound etc.), not like face-to-face training, lack of social environment, homework density (too much content), mandatory simultaneous access, not effective, not suitable for practice courses,

and shortage of time before the pandemic. The most striking of the negative features before the pandemic were the need for technology such as computer/internet, connection problems, replay problems, technical problems (sound etc.) (14 people), not like face-to-face training, lack of social environment (5 people), and the intensity of homework and content (4 people).

After synchronous distance education, the students' lack of communication, eye contact problem, connection problem, visual and sound problem, not feeling together, inadequacy of teacher control, being able to act unrelated to the lesson, not being able to reach each time and not knowing the students were revealed as negative features (Karal et al., 2011). In another study (Özgöl et al., 2017) that examined formal learning students' opinions on distance education, the difficulties encountered were the absence of attendance, inability to practice, lack of face-to-face communication, difficulties in getting feedback on questions, difficulties in asking questions, and inability to access computers and the Internet. In addition, in another study, lack of immediate feedback, complexity, lack of control in student– student interaction, and inability to receive feedback in teacher–student interaction were listed as disadvantages of distance education (Hamutoğlu et al., 2019). In the study of Paydar and Doğan (2019), the disadvantages of distance education are that it cannot provide a social environment like the school environment, it is not suitable for students to ask questions, it is difficult to provide motivation for the lesson, the lesson cannot be followed seriously because it is a virtual environment, it is very limited in terms of teaching methods, not everyone has a computer and internet, it is a monologue communication, the exams are not safe, it is limited for practice lessons, it is not good for people who are far from technology, and it is difficult to underline important points.

The difficulties of distance education for students are explained as follows: inability to immediately access and afford modern computer technologies, paying online technology fees to enroll in each distance learning course, requiring advanced knowledge of computer skills and technologies, lack of face-to-face peer interaction, lack of face-to-face interaction with teachers, requiring patience, online courses have more homework than traditional courses, initially fear or worry about online courses and technologies, encounter difficulties when submitting assignments electronically, require self-discipline and self-motivation, delayed feedback from peers and instructors, lack of direct assistance and explanation from teachers (Lei and Gupta, 2010). Sun (2014) identified six important challenges of online learning for students: (1) following the schedule and studying regularly, (2) finding classmates and finding time to work together, (3) pairing/team building and collaborative work, (4) maintaining constant interaction with the class, (5) self-motivation and being a self-directed learner, and (6) socializing.

The negativities mentioned in the distance education applications made during the pandemic period are listed as requiring technology such as computer/internet connection problems, replay problems, technical problems (sound etc.), not like face-to-face training, lack of social environment, shortage of time, homework density (too much content), not effective, not suitable for practice courses, student management is difficult, lack of active participation, attendance obligation, to be unplanned, not suitable for high-level skills, measurement/evaluation issues (copy etc.), not getting immediate feedback, long screen time even when reduced, and inability to take time for yourself. It is noteworthy that students expressed more negative characteristics during the pandemic period. In addition, the most frequently mentioned negative features were determined as requiring technology such as computer/internet, connection problems, replay problems, technical problems (sound etc.) (20 people), not like face-to-face training, lack of social environment (9 people), and shortage of time (5 people).

As in this study, Dilmaç (2020) also examined students' opinions on distance education and found that the problems they encountered in using and accessing technology were the weakest aspects of the process, and secondly, the inability to provide a socialization environment in the classroom. Aksoğan (2020) stated that distance education has negative effects on students' socialization. In a study conducted with pre-service teachers (Karakuş et al., 2020), it was concluded that the most common technical problems in distance education are internet/connection problems and unsupported device/hardware deficiency. In

distance education, it was also stated that pre-service teachers had difficulties with internet access, providing materials, providing a learning environment, and learning difficulties (Seyhan, 2021). In another study conducted with pre-service teachers, they stated that the negative aspects of distance education are inefficiency, difficulty in learning, low motivation/focus, inadequate environment, homework fatigue, difficulty in exams, miscommunication, disruption of equal opportunity and low academic achievement (Şimşek and Akün, 2022). Similarly, Koray and Pekbay (2022) expressed the negative aspects of distance education due to technological equipment, internet access, limited activities, and short course durations.

When the negative opinions on distance education were compared before and during the pandemic, it was seen that university students experienced a greater lack of social environment during the pandemic period. Compared with the pre-pandemic period, it was observed that most of the university students stated that they had technical problems and lacked digital tools during the pandemic period. Apart from these, unlike the previous period, university students stated that they could not spare time for themselves, had measurement/evaluation problems, screen time was long, distance education progressed unplanned, there was no active participation, they could not get immediate feedback, and student management was difficult. Therefore, it has been determined that there are more negative opinions in the pandemic period than in the pre-pandemic period and that there are many positive opinions in the pre-pandemic period. In addition, the results of this study reveal the difference between distance education and emergency remote teaching.

This research was conducted using data obtained from students at a university in Turkey. Fidalgo et al. (2020) stated that students' opinions on distance education differ based on data obtained from students from different countries. There are also differences in the distance education services provided by the universities according to their infrastructure and technical opportunities. Therefore, data were collected from students studying at the same university in the study. In this study, data obtained from individuals who took the same course in the same country and at the same university were used to examine the opinions before and during the pandemic. The university where the participants in this research studied was a university that has a distance education infrastructure, supports synchronous and asynchronous applications, and started to offer distance education 2 weeks after the pandemic period without too much break.

While the pre-pandemic participants in this study only took one course using the distance education model, the participants in the pandemic period had to take all their courses using distance education. In this study, data were collected with the help of online forms consisting of some open-ended questions to collect data from more participants.

Declarations

Conflict of Interest

No potential conflicts of interest were disclosed by the author(s) with respect to the research, authorship, or publication of this article.

Ethics Approval

Ethics committee permission for this study was obtained from Social and Human Sciences Research and Publication Ethics Committee of Sakarya University with the decision dated 02.10.2019 and numbered 16/03. We conducted the study in accordance with the Helsinki Declaration in 1975.

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Research and Publication Ethics Statement

Hereby, we as the authors consciously assure that for the manuscript "Students' Opinions on Distance Education: The Pandemic and Before" the following is fulfilled:

- This material is the authors' own original work, which has not been previously published elsewhere.

- The paper reflects the authors' own research and analysis in a truthful and complete manner.
- The results are appropriately placed in the context of prior and existing research.
- All sources used are properly disclosed.

Contribution Rates of Authors to the Article

The authors provide equal contribution to this work.

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