DOI: 10.2478/dcse-2022-0010

sciendo

Discourse and Communication for Sustainable Education,
vol. 13, no. 1, pp. 112–144, 2022

Attitudes and Evaluations of the Teachers Towards Distance Education During the COVID-19 Pandemic

Pinar Erten
Bingol University, Bingol, Turkey

Abstract

This study aims to identify the attitudes and evaluations of the teachers towards distance education which has become compulsory due to the COVID-19 pandemic. Both the attitudes towards distance education and the evaluations regarding this application and process were taken with an online survey prepared in this context. The authors have reached the teachers with the help of various applications and collected the data. The study was performed under the mixed method. It has been determined that the teachers' attitudes towards distance education were negative. This study also examines how teachers' attitudes towards distance education differ according to various parameters and it was found that only the teachers with previous distance education experience have a positive attitude. Apart from these, the views of the teachers were also questioned by various means. It was found out that the teachers have both positive and negative attitudes and evaluations, and suggestions were developed in this regard.

Key words: COVID-19 pandemic, distance education, teachers, attitude, evaluation

Introduction

COVID-19 was first noticed in Wuhan city of China's Hubei province as of December 2019 and has rapidly spread all over the world by the 13th of January 2020. The COVID-19 epidemic has now been recognized as a pandemic. The whole world began to shut down common use areas and reduce or cease mobility. "Emergency" conditions in education systems have been adopted due to the pandemic (World Health Organization [WHO], 2020). Countries have decided to close the schools. Many individuals' education rights have been threatened and the risk of deepening the existing inequalities and adding new ones has emerged. Negative effects have occurred in terms of creating educational opportunities sensitive to children, the disabled and gender equality, creating safe, inclusive and effective learning environments for all, and promoting lifelong learning opportunities for all, which is the aim of sustainable education (United Nations (UN), 2022). To prevent such negativities, countries have sought measures and developed various practices. This search has resulted in distance education. Countries have decided to implement their education systems primarily with distance education during the pandemic process.

In the COVID-19 pandemic, which has been spreading rapidly all over the world, it has been decided to close schools as the pandemic would spread further. To ensure the continuity of education, a method that will enable individuals to participate from their homes has been sought. With the pandemic, countries have preferred to sustain distance education in an online manner with different digital platforms to continue the education process in schools (Mulenga & Marbán, 2020). The process has progressed very quickly in distance education applications performed with live classes, TV channels, video recordings, and assignments (Moçoşoğlu & Kaya, 2020). Because of the pandemic, teachers had to learn digital methods of teaching and presenting the contents of courses to their students. COVID-19 has made greater use of digital devices, online resources, social media technology, and e-learning activities (Mulenga & Marbán, 2020; Sawicki et al., 2022).

Distance education has emerged as a new model with enabling information technologies for the solution of educational problems (İşman, 2011). Distance education is a teaching method from a specific center through specially prepared teaching units and various environments to ensure communication and interaction among the planners and practitioners of educational activities and students, in cases where it is not possible to perform classroom activities due to the limitations of traditional learning-teaching methods (Alkan, 1987).

The concepts and practices of distance education are the results of some needs and developments in various realms (Alkan, 1981). The imbalance between the educational expectations of the individual and the educational practices, the need for innovation, the differentiation of the student group, the democratization of education, the elimination of inequality of possibility and opportunity, providing flexibility in applications, the need to re-establish the order of new concepts-functions-methods, the desire to meet the individuals' different developmental stage requirements, developments in communication, creating opportunities, multidimensionality, the need for lifelong education, the opportunities that educational technology provides for individual and mass education, the limitations of ordinary classroom teaching, and the desire for excessive education.

Distance education in Turkey has been addressed within the scope of the Ministry of National Education (MEB) 2019–2023 Strategic Plan (Ministry of National Education Strategy Development Presidency, 2019) and 2023 Education Vision (MEB, 2021) and the objectives have been determined in this regard. Various configurations and applications to achieve these objectives have been made for a while. Activities for the efficient use of technology in education have been carried out since 2010 with the Movement of enhancing opportunities and improving technology "FATİH Project" (FATİH Project, 2021). Thanks to the Educational Informatics Network (EBA) built in this context, teachers and students have access to e-contents in the education process through technological tools. This system was renewed in 2020. With the rapid transition to distance education during the COVID-19 pandemic, these systems have begun to respond to the needs of teachers, students, parents, and administrators.

Various studies were carried out on distance education before the pandemic (Ağır, 2007; Ergin, 2010; Horzum, Albayrak, & Ayvaz, 2012; Kılınç, 2015; Kocayiğit & Uşun, 2020; Ozen, 2008; Şenel & Kutlu, 2015; Ülkü, 2018). These were carried out by prearranging the environment and conditions with a certain group, and the results were obtained in this direction. However, the COVID-19 forced us to switch to distance education suddenly and compulsorily. As a result of this sudden transition, many arrange-

ments had to be made not before but during the process. Various problems have emerged both because of this reality and the course of the pandemic, and the process has occasionally had troubles. The attitudes and evaluations of teachers towards distance education, which were carried out to eliminate the disruption caused by the pandemic in education, are important for the qualified and trouble-free continuation of the process. Participant attitudes during or at the end of the process determine the future of education systems. No paradigm shift in the educational process can occur successfully without the teachers (Perienen, 2020). Teachers are important key points in the sustainability of education (Heasly, Iliško, Salīte, & Lindner, 2020; Salīte, 2016).

The Purpose of the Study

This study aims to identify the attitudes and evaluations of the teachers towards distance education which has become compulsory due to the COVID-19 pandemic. For this purpose, the level of change between the variables of gender, school grade, professional seniority, being an administrator, having experience in distance education application, receiving information and support from institutions for distance education, and attitudes towards distance education were determined. In addition, the experiences of the teachers before the pandemic and the evaluations of the distance education application during the pandemic were investigated. In this context, the opinions of the teachers were determined by asking the following questions:

- Did you have any distance education application experience before the pandemic process?
- Were you informed by your institutions about how to carry out distance education when the pandemic process started?
- Have you received any support from your institutions related to distance education during the pandemic process?
- On which platforms do you conduct distance education during the pandemic process?
- What are the technological tools you use to perform distance education? (such as tablet pc, laptop, desktop computer, mobile phone)
- What is your resource and material situation for performing the distance education of your class?
- How different are your previous and current thoughts on distance education, which has become compulsory with the pandemic process?
- How would you score if you happen to evaluate the "distance education system" that we are carrying out during the pandemic process?
- What are your positive evaluations about our distance education manner, which has become a necessity with the pandemic process?
- What are your negative evaluations about our distance education manner, which has become a necessity with the pandemic process?

Method

The research was drafted according to the triangulation design of mixed methods research, in which both qualitative and quantitative approaches are used together (Fraenkel, Wallen, & Hyun, 2012). Both quantitative and qualitative data were collected

at the same time. In this way, the results obtained from both qualitative and quantitative data were collected with the concurrent triangulate approach, and convergences, differences, or combinations among the findings were revealed (Creswell, 2009). Quantitative data were collected through an online survey and qualitative data through an online interview. Thus, it was ensured that complementary data were collected to obtain deep and extensive information about teachers' attitudes and evaluations towards distance education during the pandemic process (Baki & Gökçek, 2012).

Population and Sample

The research was carried out with 250 teachers working in the Ministry of National Education in the semester of the 2020–2021 academic year. Since it was aimed to generalize the research, a realistic and accessible study population was examined (Fraenkel, Wallen, & Hyun, 2012). Teachers were selected with the concurrent mixed methods sampling (Teddlie & Yu, 2007). It is a sample selection created by concurrent use of simple random sampling and purposive sampling, which are probability sampling types (Fraenkel, Wallen, & Hyun, 2012). This sampling collects both quantitative and qualitative data. According to the Ministry of National Education Strategy Development Presidency (2020) data, the number of teachers working in formal education institutions in the 2019–2020 academic year is 1,117,686. Based on the criterion of homogeneous distribution of the sample with a ±5 % margin of error at the level of 95 % confidence level from this population (Baş, 2005, as cited in Can, 2016; Yazıcıoğlu & Erdoğan, 2014), the number of people participating in the research was considered sufficient. Demographic information of the teachers participating in the research is given in the below diagram and table.

Table 1

Demographic Information of Teachers

	%
Gender	
Female	50.4
Male	49.6
School Grade	
Primary school	34.8
Secondary school	49.2
High school	12.8
Pre-school	3.2
Professional seniority	
5 years and less	22.8
5–10 years	30.4
10–15 years	20.0
15 years and more	26.8

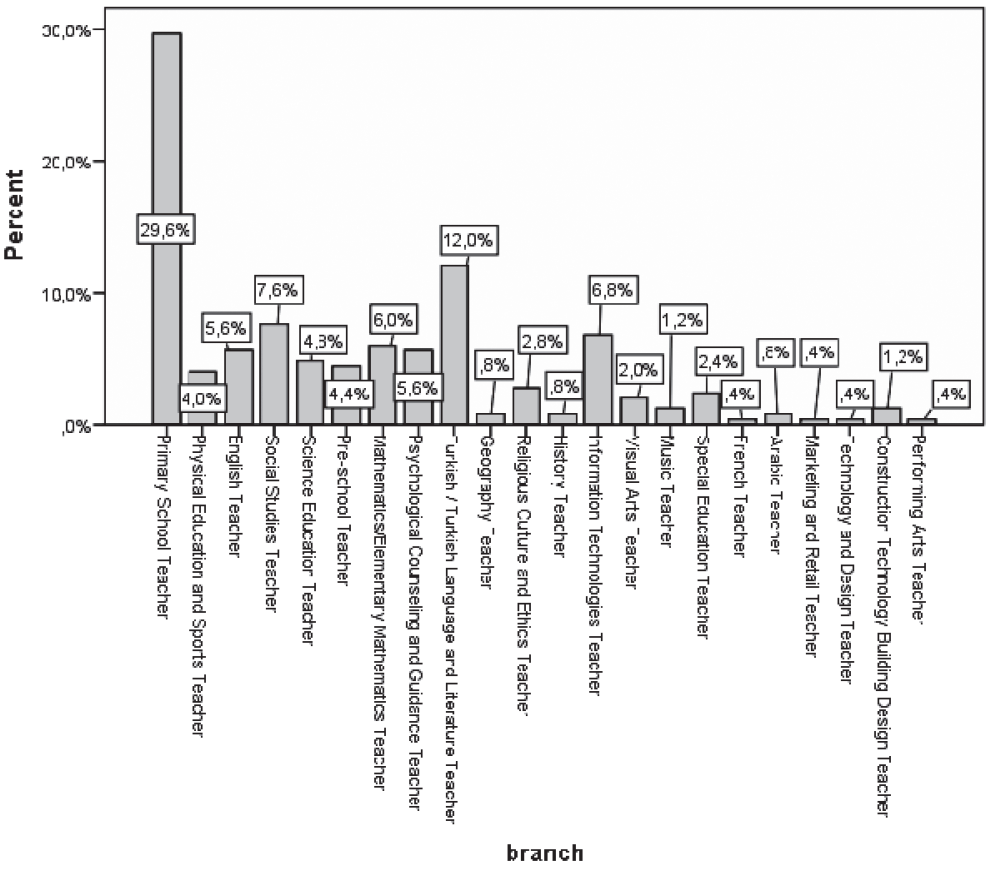
See next page for continuation of table

Continuation of Table 1

Status of being an administrative duty	
Yes	16.8
No	83.2
Location of the school	
The Eastern Anatolia Region	60.4
The Southeastern	15.6
The Mediterranean Region	6.4
The Aegean Region	6.4
The Marmara Region	8.0
The Black Sea Region	2.4
The Central Anatolia Region	0.8

Figure 1

Teachers' Branches



The sample consists of 49.6 % male and 50.4 % female teachers. The majority of teachers work in secondary schools (49.2 %). Most of the teachers participating in the study work in the Eastern Anatolia region (60.4 %). The seniority level distributions of the teachers in the study are 22.8 %, 30.4 %, 20 %, and 26.8 % for less than 5 years, 5 to 10 years, 10 to 15 years, and 15 or more years, respectively. 83.2 % of the teachers do not have administrative duties. Classroom teachers have mostly participated in the study (29.6 %).

Data Collection Tool

Online survey and interview forms were used to collect data on teachers' evaluations of the pandemic process and their attitudes towards distance education, which has become an obligation. The online survey includes teachers' personal information, the scale prepared by Ağır, Gür & Okçu (2007) to determine attitudes, and various structured interview questions to collect some opinions. Although the interview questions asked of the teachers are in parallel with the attitude scale, they are deep and extensive enough to reveal an evaluation of the process and the environment. The personal information section contains information on teachers' genders, the levels of the school where they work, their professional seniority and branches, the status of their administrative duties, and the geographical region they work. The Kaiser-Meyer-Olkin (KMO) coefficient of the 21-item distance education attitude scale was found to be 0.814, the Barlett test significance value was 0.000, and the Cronbach-alpha reliability coefficient was 0.835 (Ağır, Gür & Okçu, 2007).

The online interview was prepared in the form of a structured interview form. In the structured interview form, teachers were asked some questions to determine their opinions on distance education carried out during the pandemic process. These questions include open and closed-ended questions:

- Did you have any distance education application experience before the pandemic process?
- Were you informed by your institutions about how to carry out distance education when the pandemic process started?
- Have you received any support from your institutions related to distance education during the pandemic process?
- On which platforms do you conduct distance education during the pandemic process?
- What are the technological tools you use to perform distance education? (such as tablet pc, laptop, desktop computer, mobile phone)
- What is your resource and material situation for performing the distance education of your class?
- How different are your previous and current thoughts on distance education, which has become compulsory with the pandemic process?
- How would you score if you happen to evaluate the "distance education system" that we are carrying out during the pandemic process?
- What are your positive evaluations about our distance education manner, which has become a necessity with the pandemic process?
- What are your negative evaluations about our distance education manner, which has become a necessity with the pandemic process?

Collection and Analysis of the Data

Since it is impossible to come together with the teachers due to the pandemic, the surveys and interview prepared through various applications on the internet were distributed and data were collected via digital applications (such as e-mail, social media applications, WhatsApp). Both qualitative and quantitative data were collected at the same time and with a single questionnaire. Ethics committee approval was obtained from the institution. Teachers have participated in the research voluntarily. Tests for normality were performed primarily on the quantitative data collected in the study. In this direction, non-parametric tests were used to reveal the relationship between the dependent variable of the research and the variables of gender, school grade, the experience of distance education, and the institution's state of providing information on distance education. Similarly, parametric tests were used in the variables of seniority, being an administrator, and receiving support from the institution for distance education. In addition, descriptive statistics, percentages, and frequencies were also used. The significance value was accepted as 0.05. The evaluation of the averages was assumed as "I strongly agree: 4.21–5.00"; "I agree: 3.41–4.20"; "I am indecisive: 2.61–3.40"; "I disagree: 1.81–2.60"; "I strongly disagree: 1.00–1.80". Descriptive analysis was also carried out on the qualitative data collected from the teachers. With descriptive analysis, the data were classified, coded, and interpreted according to certain themes. In coding, "T1, T2,..." indicate the teacher's number; PrS-preschool, PS-primary school, SS-secondary school, and HS-high school indicate the school grades; Y-yes, and N-no stand for the state of having previous distance education experience. As an advantage of the mixed research method, comparisons were made between quantitative and qualitative data in a way that would support each other's consistency, complete each other, show each other's differences, or reveal situations that would be the cause and effect of each other.

Findings and Interpretation

What are the attitudes of teachers towards distance education during the pandemic process?

To determine the level of teachers' attitudes towards distance education during the pandemic process, descriptive statistics practices were performed. The below table gives the findings.

Table 2

The Descriptive Statistics Regarding the Teachers' Attitudes Towards Distant Education

Attitudes towards distant education	n	Min	Max	Median	Mean ($\bar{X}$)	Standard deviation (sd)
General of the scale	250	1.00	4.57	2.57	2.58	0.66

It has been found that teachers' attitudes towards distance education are "I disagree" ($\bar{X}$ = 2.58) level. It has been observed that their attitudes towards distance education, which became compulsory during the pandemic process, are not positive.

What is the level of change in teachers' attitudes towards distance education during the pandemic process in terms of the variables of the research (gender, school grade, professional seniority, being an administrator, experience of distance education application, receiving information, and support from institutions for distance education)?

Mann Whitney U test, which is one of the non-parametric tests, was conducted to understand the level of teachers' attitudes towards distance education according to the variables of "gender, having experience in distance education application, and the state of receiving information about distance education from institutions". Table 3 gives the results of this test.

Table 3

Analysis Results of Teachers' Attitudes Towards Distance Education in Terms of Research Variables (gender, distance education experience, and information)

Variables	Groups	n	Mean Rank	Sum of Ranks	U	p
Gender	Female	126	133.68	16843.50	6781.500	0.071
	Male	124	117.19	14531.50		
Having experience in distance education application	Yes	92	137.76	12673.50	6140.500	0.041*
	No	158	118.36	18701.50		
The state of receiving information about distance education from institutions	Yes	182	128.26	23343.00	5686.000	0.324
	No	68	118.12	8032.00		

*$p<0.05$

As a result of the analysis, no change was observed between teachers' attitudes towards distance education and the variables "gender" and "the state of receiving information from institutions about distance education"; while a significant change has occurred for the variable "distance education application experience". This change has been observed to be in favor of teachers who have experience in distance education applications. It can be said that the attitudes of teachers do not change when they were informed about gender and distance education. However, it is possible to state that their attitudes change according to the experience of practice in distance education and that the experienced teachers' attitudes towards distance education during the pandemic process are more positive.

The Kruskal Wallis H test was applied to observe how the teachers' attitudes change according to the school grades they work at.

Table 4

The Analysis of the Results of Teachers' Attitudes Towards Distance Education in Terms of the School Grade Variable of the Study

School Grade	n	Mean Rank	Degree of freedom (df)	KWH	p
Primary	87	126.13	3	1.261	0.738
Secondary	123	126.72			
High	32	126.14			
Pre-school	8	97.31			

There is no significant change between the attitudes of the teachers and the school level they work. It was seen that the attitudes of the teachers do not change depending on the school grade.

Variance analysis was conducted to find out how teachers' attitudes towards distance education change in terms of "professional seniority" and "support for distance education from institutions", which are the other variables of the research. The below table gives these analyses.

Table 5

The Analysis of the Results of Teachers' Attitudes Towards Distance Education in Terms of the Variables of the Research (professional seniority and support from institutions for distance education)

Variables	Groups	n	$\bar{X}$	sd	Source of variance	Sum of squares	df	Mean square	F	p
Professional seniority	5 years and less	57	2.64	0.52	Between groups	0.572	3	0.191	0.440	0.724
	5–10 years	76	2.59	0.71	Within groups	106.606	246	0.433		
	10–15 years	50	2.50	0.64						
	15 years and more	67	2.57	0.71	Total	107.178	249			
	Levene: 1.568 p = 0.198									
Support from institutions for distance education	Never	39	2.31	0.66	Between groups	3.260	3	1.087	2.573	0.055
	Sometimes	99	2.64	0.62	Within groups	103.918	246	0.422		
	Often	55	2.59	0.69	Total	107.178	249			
	Always	57	2.63	0.66						
	Levene: 0.724 p = 0.539									

There is no significant difference between the attitudes of teachers and their professional seniority and receiving support. An independent sample t-test was conducted to see how the teachers' attitudes change according to their "administrative status".

Table 6

Analysis of the Results of Teachers' Attitudes Towards Distance Education in Terms of the Variable of Being an Administrator

Being an administrator	n	$\bar{X}$	sd	t	p
Yes	42	2.58	0.71	0.047	0.963
No	208	2.57	0.65		

As the table shows, there is no change. It can be stated that teachers' attitudes towards distance education do not change according to their administrative status.

Did you have any distance education application experience before the pandemic process?

Teachers were asked if they had any experience in distance education applications before the pandemic. The majority of teachers (63.2 %) stated that they did not have experience in distance education applications.

Have you been informed by your institutions about how to perform distance education when the pandemic process began?

Teachers were asked whether any information was given to them by their institutions on how to carry out distance education when the pandemic process started. The majority of the teachers (72.8 %) state that this information was given to them. In this direction, it can be said that "the institutions try to provide information about distance education to their teachers at every stage of the pandemic process".

Have you received any support from your institutions for distance education during the pandemic process?

Teachers were asked whether they received support from their institutions related to distance education in the pandemic process. 39.6 % of the teachers said "sometimes", 22.8 % said "always", 22 % said "often", and 15.6 % said "never". According to these statements, it can be said that the teachers' institutions have been trying to provide all kinds of support to them in terms of distance education during the pandemic process.

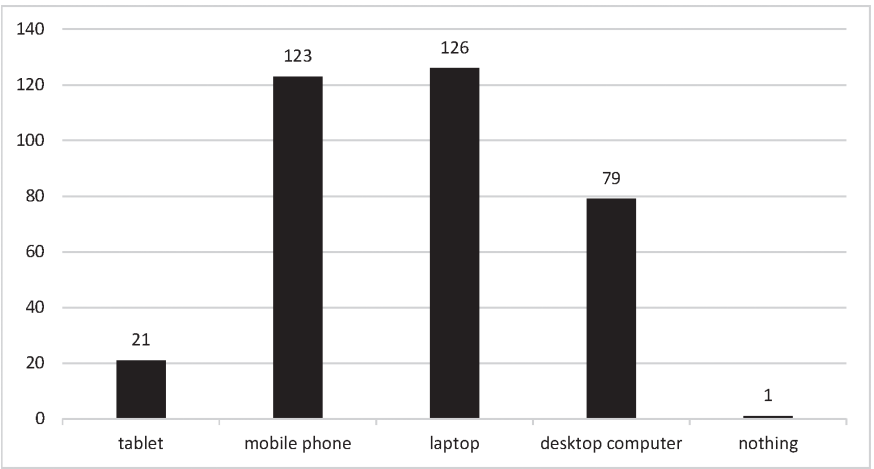
On which platforms do you perform distance education during the pandemic?

Teachers were asked about the platforms on which they perform distance education during the pandemic process. Their answers are zoom (201), EBA (148), Whatsapp application (22), Team elt/Team link (2), Microsoft Teams (1), Webex (1), Adobe Connect (1), Google Meet (1), Skype (1), and "I do not use online platforms" (1), respectively. Zoom application has been the most popular platform during this process. The fact that virtual classroom practices were mentioned by the majority of teachers may be explained by the perceived ease of using virtual classrooms and the efficiency and effectiveness of retrieving information and learning by using virtual classrooms at anytime and anywhere (Alshammari, 2021).

What are the technological devices you use for distance education?

Figure 2

The Technological Devices That the Teachers use While Performing Distance Education



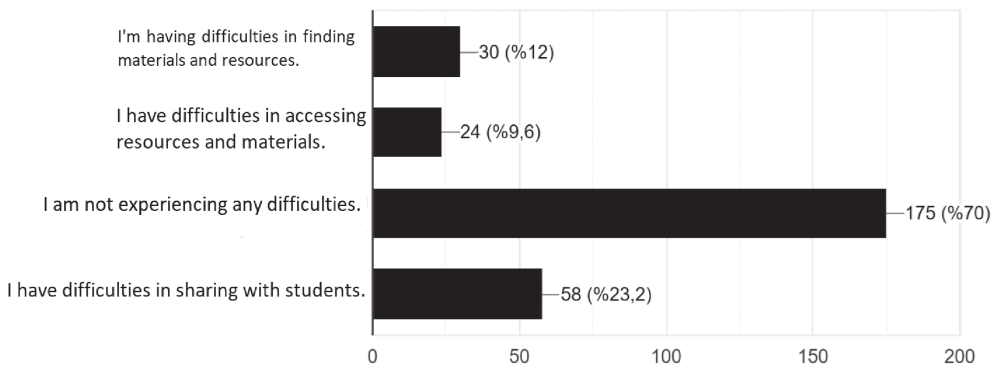
The teachers were asked by using which devices do they perform distance education. The laptop computer is the most popular answer, then mobile phone follows it among the devices they use for performing distance education.

What is your position in terms of resources and materials while performing distance education?

The teachers were asked to express their position in terms of resources and materials while performing distance education. Their answers are as follows:

Figure 3

The Position of the Teachers in Terms of Resources and Materials While Performing Distance Education



Teachers mostly express that they did not experience any difficulties (70 %). The teachers who stated that they had difficulties in sharing with the students were 23.2 %, those who had difficulties in finding materials and resources were 12 %, and those who had difficulties in accessing the sources and materials were 9.6 %. While the teachers stated that they did not experience much difficulty in finding and accessing resources and materials during their distance education during the pandemic process, they stated that they had difficulties in sharing with the students.

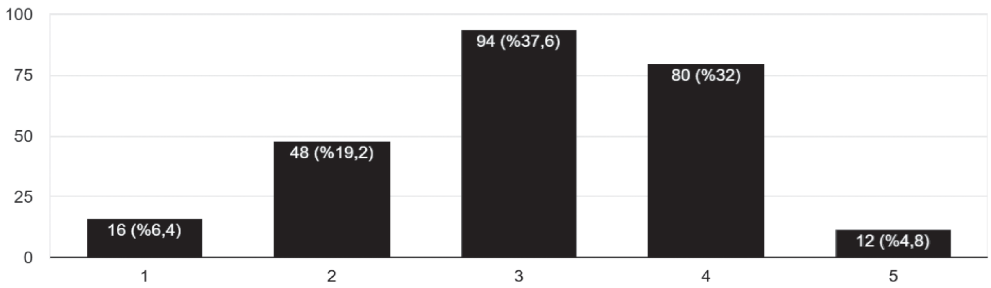
How do your previous and current thoughts differ about distance education, which has become mandatory with the pandemic process?

The teachers were asked about the changes between their previous and current thoughts on distance education, which has become a necessity with the pandemic. The majority of the teachers answer that "I had no previous idea on distance education, but I currently think positive about it".

How would you score if you happen to evaluate the "distance education system" that we are carrying out during the pandemic?

Figure 4

Teachers' Evaluation Scores Regarding the Distance Education System



The teachers were asked to score the distance education system they have been applying during the pandemic on a scale of 1 (very bad) to 5 (very good). As a result of this evaluation, 37.6 % of the teachers gave 3 and 32 % gave 4 points. This may give rise to the idea that the majority of teachers are satisfied with the distance education system they have been applying during the pandemic.

What are your positive evaluations about our system of distance education, which has become a necessity with the pandemic?

Teachers were asked about their positive evaluations for distance education, which they have had to apply with the pandemic process. 235 teachers answered this question. These answers have been interpreted under certain themes. The themes and frequencies created for positive evaluations are as follows:

Table 7

Themes and Frequencies for the Positive Evaluations of Teachers Regarding to Distance Education

Themes	Distance education experience		School Grade				Total
	Yes	No	Pre-school	Primary school	Secondary school	High school	
Lack of positive thinking	11	24	1	14	13	7	33
Ensuring the continuity of education	17	19		13	17	6	36
Being independent of time and place	8	19	1	7	15	4	27
Health	4	5	2	4	3		9
Pandemic conditions	5	28		11	17	5	33
Access to information	6	7	2	1	9	1	13
Effective use of time	2	5		3	3	1	7
Dependence on fulling of conditions	5	6	1	3	6	1	11
Use of technology	6	20	3	9	11	3	26
Access to resources	2	4		4	1	1	6
Conveniences offered	12	21		10	21	2	33
Communication		4	1	2	1		4
Parents' involvement in the educational environment		4		4			4
Individualized education	2			1		1	2
Learning responsibility	1	1		1	1		2
Student participation	1				1		1
Gathering attention		1			1		1
Visual intelligence in the foreground	1				1		1
Having an idea	1				1		1
Desire for success	1					1	1
Changing perspective	1			1			1
Equal opportunities	1				1		1
Researching new methods		1		1			1
Multiple learning	1			1			1
Individual learning	1			1			1
Self-evaluation		1		1			1
Gaining responsibility and self-discipline	1				1		1

Some teachers state that they "do not have any positive thoughts" towards distance education, which is the manner of emergency education having been applied during the pandemic. Teachers who adopt this view evaluate negatively and detail these evaluations under the title of "negative evaluations", which is another question in the research. It is possible to say that these teachers do not think of any positive sides of this practice. Besides, it has been determined that teachers who have no previous experience in primary school and distance education, have no positive thoughts.

There have been teachers who state that the positive side of distance education during the pandemic process is "to ensure the continuity of education", and the majority of them are secondary school teachers without distance education experience. Teachers think that distance education would be a good solution to ensure the continuity of education, since the pandemic limits face-to-face education. Some opinions are as follows:

T14. PS. N. *"With the pandemic, distance education has been a solution rather than a problem. It ensured the continuity of education in this period."*

T195. PS. Y. *"Students are not completely devoid of education by so."*

As another positive aspect of distance education, teachers state its nature of "being free of time and place limitations", which is one of its biggest advantages. Thanks to these characteristics of distance education, training and education could be provided anywhere and any time during the pandemic. It served as a solution for the current problematic situation. This view has mostly been adopted by teachers lacking distance education experience and working at the secondary school grade. Some of the below opinions refer to these results:

T10. SS. N. *"Having access to information regardless of time and place..."*

T185. SS. N. *"It is positive that education continues in anyway and anywhere, there is no time limitation."*

Teachers suggest that distance education, which has become compulsory during the pandemic, has positive benefits in terms of "health". Due to the extraordinary process we experience, schools had to be closed to avoid threatening the health of individuals. Distance education has been adopted as a solution for individuals to continue education without endangering their health. With these thoughts, the teachers state that distance education is a practice that will not risk anyone's health. Teachers who work at the primary school grade and do not have distance education experience mostly adopt this opinion. Some of the teachers' opinions to support this situation are as follows:

T29. PS. N. *"People have a low risk of disease."*

T74. PS. Y. *"It has been a more controlled application in terms of health."*

By considering the "pandemic conditions", teachers make positive evaluations for distance education, which has taken place with the COVID-19. Teachers have deemed the distance education system as the best emergency education system to be applied considering the pandemic conditions. This view was particularly defended by secondary school teachers without distance education experience. It has been underlined that distance education is a good system that can be adopted under pandemic conditions. The statements of some teachers regarding these evaluations are as follows:

T9. HS. N. *"The best method is under these circumstances..."*

T93. PS. Y. *"It was nice to meet my students even if it was remotely."*

T115. SS. N. *"Although it is not as successful as face-to-face education, it is still useful."*

Teachers regard "having access to information" as a positive outcome of the distance education system. Teachers at the secondary school grade and without distance education

experience mostly defended this view. Some teachers' opinions below prove that it is accepted as a system where access to information is quick and easy:

T10. SS. N. *"Faster access to information..."*

T135. SS. N. *"Access to information became easier."*

It has been observed that teachers have the opinion that this education system also provides benefits in the "effective use of time". Primary and secondary school teachers without distance education experience have adopted this opinion more commonly. The majority of the teachers think that the time spared for the student, teacher, and leisure time are well-arranged. Some opinions to refer to are as follows:

T6. PS. N. *"The time allocated for the student is a lot."*

T48. SS. N. *"Making better use of the time..."*

T155. SS. Y. *"More time left to the teacher..."*

The positive evaluations of the teachers in the study were gathered under another theme as "depending on the fulfillment of the conditions". The majority of the opinions under this theme are that this system will be beneficial by providing the conditions for distance education. Teachers have commented that possibilities, especially financial and technological infrastructure, will create equal opportunities, participation in the class will be ensured, and education will be fulfilled without losses. Mostly the secondary school teachers and teachers without distance education experience were found to comment this way. Some teacher reviews are as follows:

T3. SS. N. *"It could be, provided that the opportunities are granted."*

T15. PrS. Y. *"Distance education can have many benefits as long as qualified and equal opportunities are provided in technological equipment and infrastructure."*

T235. SS. Y. *"It provides the students with the opportunity to access the content and educational materials within their possibilities without the time and place limits."*

Another theme created is the "use of technology". Teachers were observed to state that there has been positive progress in the use of technology during this process. Teachers' evaluations in this process include that technology and computer literacy have increased, EBA TV applications have been useful, the perspectives of teachers, students, and parents on technology and its use in education have changed, and progress has been made. These evaluations were mostly made by secondary school teachers who do not have experience in distance education. Some teacher opinions are:

T74. PS. Y. *"One's computer literacy rate has increased..."*

T75. SS. Y. *"I learned different methods of using various online tools and technology."*

T110. SS. N. *"With EBA TV, students who do not have internet access can also follow the lessons."*

T127. PrS. Y. *"Parents and children learned to use technology in education."*

T175. SS. N. *"...and the fact that the students who had studied on their desks are now participating in the education with technological devices such as telephones and computers, create a special interest for the students."*

The theme "resource access" is also among the positive evaluations of teachers. Teachers say that the variety of resources is extensive, and it is easy to access and share them. Primary school teachers without distance education experience emphasize this theme more. Some of the opinions from these evaluations are as follows:

T12. PS. N. *"More resources are available on the internet."*

T184. SS. N. *"...easily sharing the resources..."*

Teachers state that the distance education system, which has been activated with the pandemic, "offers some conveniences". These are as follows: Removal of restrictions, organizing activities that could not be applied in the classroom, an unlimited variety of materials and the effectiveness of their use, interactive activities, opportunity to reach students, having more advantages in comparison to face-to-face education, rapid evaluation and feedback, opportunity to present information, opportunity to repeat, being planned, content variety, ease of management, and flexibility. These conveniences were mostly stated by secondary school teachers. Besides, the teachers without distance education experience were seen to think this way. Some teacher opinions are as follows:

T4. SS. Y. *"I believe that the limitations of opportunities and materials have been removed with distance education."*

T13. PS. N. *"Activities that normally cannot be brought to class are offered to children."*

T98. SS. Y. *"The feedback is quicker."*

T145. PS. Y. *"...the variety of audio-visual materials ... and the possibility of repeating."*

T193. SS. N. *"...it is very easy and efficient to manage."*

T227. HS. Y. *"...Effective learning can be achieved with audio-visual materials; it can increase motivation by getting faster results from assessment and evaluation applications."*

T233. SS. Y. "*It provides the necessary flexibility in education."*

With the theme "communication", teachers declare that the distance education they have been performing during the pandemic allowed them to continue their communication with their students. This positive side was stated by primary school teachers and teachers without distance education experience. Statements reflecting this point of view are as follows:

T107. PrS. N. *"Communicating with the students more frequently and continuously."*

T164. PS. N. *"Students' communication with their teachers is sustaining, they feel as if they are in the classroom even if they are in front of the screen."*

T169. PS. N. *"This way, our communication with the students was not undermined..."*

Teachers state that "parents were included in the educational environment" in the distance education system and believe that this has positive results in terms of parent-teacher-student communication. Especially teachers who work in primary school and have no experience in this system think that way.

T214. PS. N. *"The parents saw what we had been going through."*

T213. PS. N. *"Parent's involvement in education and their close follow-up increase teacher-parent communication and enable them to better understand the difficulties that the teachers face during this process. Parents have the opportunity to observe the educational environment of the student and can better follow the development of their children."*

T169. PS. N. *"...most importantly, families are fully involved in education..."*

Teachers emphasize the theme "individualized education", too. It can be said that distance education paves the way for individualized education. High school and primary school teachers with experience in distance education think that way.

T226. HS. Y. *"Platforms that allow students to individualize their education eliminates the disadvantages of face-to-face education that are suitable for class level."*

T160. PS. Y. *"A more individualized education."*

Another theme is "learning responsibility". It has been observed by teachers that students take more responsibility for their learning with the distance education system. Teachers seem to adopt this opinion whether they have experience or not. Besides, teachers who state these views are at primary and secondary school:

T152. PS. N. *"Each student takes responsibility for their learning..."*

T19. SS. Y. *"Students have taken a little more responsibility for their learning..."*

The themes "student participation, gathering attention, visual intelligence in the foreground, having an idea, desire for success, changing perspective, equal opportunity, researching new methods, multiple learning, individual learning, self-evaluation, and gaining responsibility and self-discipline" were also created in line with the teachers' opinions. As the positive aspects of this system, teachers state the participation of the students, the concentration of the students, the visual intelligence being in the frame, students having an idea about the system, suitability for those who want to be successful, the change in the opinions towards the education systems and practices (even a little), provision of equality of opportunity, searching new methods are for teaching the lessons, realizing multiple learning, supporting individual learning, rendering self-evaluation, gaining responsibility and self-discipline. These opinions were mostly suggested by secondary school teachers and teachers with distance education experience:

T36. SS. N. *"To be able to attract students' attention more effectively."*

T223. SS. Y. *"Equal opportunity has been achieved."*

T169. PS. N. *"...we started to find new ways to deliver our lectures..."*

T157. PS. Y. *"It supports individual learning..."*

T152. PS. N. *"...enabled self-evaluation."*

T19. SS. Y. *"...and that helped with responsibility and self-discipline."*

What are your negative evaluations about our distance education system, which has become a necessity with the pandemic process?

Teachers were asked about their negative evaluations for distance education manner, which has been applied as a necessity during the pandemic process, and themes were created according to the responses collected from 235 people. Table 8 shows the themes and frequencies of teachers' evaluations according to "experience status" and "school grade".

Table 8

Themes and Frequencies for the Negative Evaluations of Teachers Regarding to Distance Education

Themes	Distance education experience		School Grade				Total
	Yes	No	Pre-school	Primary school	Secondary school	High school	
Having negative thinking	2	2		2	2		4
Having positive thinking	2	8	1	5	3	1	10
Inequality in education / Inequality of opportunity and possibility in education	50	104	7	51	74	22	154
Addiction	2	4	1	2	1	2	6
Health	5	8	1	5	4	3	13
Difficulty in adapting to the process	2	1			1	2	3
Participation in the courses	10	16		5	17	4	26
Lack of eye-physical contact		7		3	3	1	7
Place disadvantage		3		3			3
Lack of feedback		5		5			5
Unsociability	4	9		5	5	3	13
Inefficiency	1	5		3	3		6
Lack of learning	2	6		5	2	1	8
Comparison with face-to-face education	6	4	1	2	6	1	10
Class duration problems	1	3		1	2	1	4
Parental problems	2	3	2	1	1	1	5
Classroom management problems	4	4			7	1	8
System problem	1	8		1	2	6	9
Shortage of material	1	2	1		1	1	3
Administration problems	3	3		3	1	2	6
Lack of evaluation and student development tracking	2	3		2	1	2	5

See next page for continuation of table

Continuation of Table 8

Communication difficulties	3	4	1	2	4		7
Distance education not being suitable for all courses	1	3			2	2	4
Lack of emotional contact	2				2		2
Inadequacy of technology use skills		2			2		2
Inability to fulfill responsibilities	2		1		1		2
Low success levels	1	1			2		2
Lack of peer interaction/education	2		1	1			2
Lack of active participation	1	1			2		2
Inadequacy of teachers	2			2			2
Low motivation	1	1		1	1		2
Being boring		2		1	1		2
Lack of planning		1				1	1
Being away from school		1		1			1
Obligation		1		1			1
Change of school and life	1			1			1
Self-discipline problem		1				1	1
Problem of readiness level	1				1		1

Teachers state that they "have a negative thought" about the distance education manner being applied. However, they do not give an account of this opinion. Teachers who work at the secondary school level, regardless of having or not having distance education experience, act in this manner. Some teachers include the theme "having positive thinking" under the title of the negative evaluation. These teachers especially express their opinions under this title to explain that they did not have a negative opinion. The majority of these teachers do not have experience in distance education, and they work at the primary school grade. Although they use this distance education system for the first time during the pandemic process, they do not have any negative evaluations.

The majority of the teachers whose opinions were asked, emphasize the theme "inequality in education/inequality of opportunity and possibility". There are negative evaluations about the distance education system due to conditions such as "inequality of opportunity, inequality of possibility, being unable to reach the students, lack of education, lack of access to internet and technology, technology and internet infrastructure problems, geographical differences, economic differences, and ignoring disadvantageous groups (physical disability, foreign nationality)". The teachers highlight that the majority of the students do not have the technology and internet necessary for them to perform distance education, due to financial problems and regional inadequacies (due to the location of their homes). Teachers say that students are deprived of education, which is their most natural right, due to these inadequacies and difficulties; and that some great deficiencies and problems that are difficult to compensate, may arise. Teachers seem to be quite worried about this situation. Besides, it was stated that teachers also suffer from financial inadequacies, technological and internet access problems, and negativities were experienced in this regard. Teachers also state the fact that disadvantageous groups were ignored during this process and especially the disabled and foreign students were observed to be the victims of inequality in education. Teachers state that the problems caused by these inequalities in education create a gap. Teachers who do

not have experience in distance education and work at the secondary school grade more commonly emphasized this theme. Some teacher opinions are as follows:

> T5. PS. Y. *"...there is no interaction with our students who cannot have access to technology."*
>
> T15. PrS. Y. *"Connection problems, students' limited access to technological tools, infrastructure problems..."*
>
> T109. PS. N. *"The majority of students, especially in the rural areas, have great difficulties in accessing distance education..."*
>
> T119. PS. N. *"...No steps were taken to find solutions for these disadvantageous students, and they were left to their fate..."*
>
> T150. SS. N. *"Our distance education method can be applied correctly. However, as long as equality of opportunity is not provided along with the country, students who do not have access to distance education will experience a lack of education and destruction that may last for years. Our applications and programs are experiencing difficulties inequality of opportunity."*
>
> T153. SS. Y. *"The lack of equality of opportunity; not everyone can attend the classes inappropriate environments or some of them cannot attend the classes at all. It also pushes foreign students more."*
>
> T218. SS. N. *"There was no equal opportunity anyway and the gap deepened with distance education."*

Because of continuously performing distance education during the pandemic, teachers have stressed the development of addictions to certain things such as screen, technology, mobile phone, tablet pc, computer, and internet and highlighted the theme of "addiction". Those who do not have distance education experience emphasize these addictions more. Teachers at primary and high school grades state that students are in danger of addiction. Teachers are thought to emphasize "addiction", especially because these primary and high school years are critical periods for the students. Some teacher opinions are as follows:

> T1. PS. Y. *"...By making the children and teachers addicted to screens..."*
>
> T30. SS. N. *"This generation has become addicted to tablets, mobile phones, and computers."*
>
> T68. HS. N. *"...the fact that students have become addicted to the internet and games during this process..."*

Most of the teachers emphasize that there are some "health" problems in individuals. It has been stated that various physical, psychological, cognitive, and sociological problems occur due to using computers, tablets, mobile phones, and TVs too much and the negative situation stemming from the pandemic. Especially intellectual, eye, sleeping, posture disorders, mental problems, fatigue-technology fatigue, boredom, inactivity, psychological, and sociological problems were mentioned. Primary school teachers and the teachers without distance education experience made more evaluations with this opinion:

T1. PS. Y. *"...adversely affected mental and eye health."*

T68. HS. N. *"...sleeping disorders,"*

T143. HS. N. *"...eye, posture disorders..."*

T187. PS. N. *"...immobility..."*

T220. SS. Y. *"...Long-term use of distance education, which can be used due to necessity or to repeat, is predicted to adversely affect cognitive, social, and psycho-motor skills."*

T224. PS. Y. *"...we and the children experienced technology fatigue."*

T230. SS. Y. *"Being in front of a smartphone, tablet, and computer for a long time can lead to health and mental problems in the future."*

Teachers state that there has been a "difficulty in adapting to the process" for the distance education system, which has become a necessity with the pandemic. It was thought that teachers, students, and parents have difficulties in complying with this process. Teachers who have experience and who work at the high school grade seem to possess this opinion more:

T207. HS. N. *"...We couldn't have our classes with a conscience because of calling the students and trying to deal with the parents. We can carry out distance education, but the biggest problem is the adaptation of students and parents to this process..."*

T227. HS. Y. *"...Teachers' inability to adapt."*

The majority of the teachers emphasize the "participation in the courses" is another negative evaluation theme. It has been stated that participation in the courses is low as a result of the inequality of opportunity and possibility in education, the absence of compulsory participation in courses, and the freedom of course selection. Situations such as technology and internet access problems, infrastructure inadequacies, and leaving the decision to attend the classes to the students reduce the number of participants in the courses. Secondary school grade teachers and the ones without distance education experience mostly stand for this idea. Some reference comments are as follows:

T17. SS. N. *"Not every student has the technological tools to make use of distance education opportunities and the ratio of participation in the classes is very low."*

T23. HS. Y. *"The fact that attendance is not compulsory causes students to be lazy about participating in the classes."*

T220. SS. Y. *"Especially in village schools, the participation in distance education is low during the pandemic process..."*

The teachers were determined to state that there was a "lack of eye-physical contact", "place disadvantage", "inefficiency", and "not getting feedback" due to the distance education they have applied. Teachers mention the following among the negative sides: the lack of eye and physical contact with the students, the inability to send the stimuli, the disadvantage of the comfort in the home environment, the ineffectiveness of

the classes, and the inability to receive feedback from the students. Especially, the teachers who do not have distance education experience and who work at the primary school grade were found to defend these negative evaluations. Some opinions are as follows:

T27. PS. N. *"...unable to get feedback from students..."*

T28. PS. N. *"It is not efficient at primary school level."*

T197. PS. N. *"The fact that students are in the home environment causes distraction."*

T208. SS. N. *"It is not a real lesson without making eye contact with the students one by one, smiling at them, and patting their heads."*

Some teacher opinions are emphasizing the negative aspects of distance education, which has been used instead of face-to-face education during the pandemic, such as "unsociability", "communication difficulties", "inadequacy of technology use skills", and "being boring". Teachers mention cases where this system reduces socialization and interaction, individuals become unsociable people, communication is limited, the interaction between the teacher and the student is negatively affected, the environment becomes boring during the time, and students are distracted from the class. They also state that teachers and students suffer from a lack of knowledge and skills for using technology. Especially, the majority of teachers stress the problem of unsociability. Teachers working at the secondary school grade and the ones without experience in distance education mostly speak of these negativities. Some references to these views are as follows:

T10. SS. N. *"Lack of knowledge in the use of technology."*

T115. SS. N. *"...It becomes boring by the time and causes the students to be distracted from the class."*

T121. SS. Y. *"...limited communication..."*

T124. SS. N. *"Lacking socialism negatively affects the social skills of students."*

In the theme "lack of learning", teachers say that due to distance education as a necessity of the pandemic and the inequality of opportunity and possibility, students could not fully participate in the classes, and they could not determine whether the students comprehend the topics or not, which created gaps among the students in terms of learning. However, one of the aims of switching to distance education was to prevent long-term learning losses of students in case of a crisis by ensuring the continuity of learning (Karip, 2020). Teachers who mention that learning could not be fully realized are the ones who lack distance education experience and who work at the primary school grade. Some of their views are as follows:

T75. SS. Y. *"Not knowing exactly how children listen and learn..."*

T136. PS. Y. *"...the emergence of a gap between the learning levels..."*

T170. PS. N. *"Students who cannot attend the class due to impossibilities fall behind the lessons."*

The theme "comparison with face-to-face education" comprises another majority of the negative evaluations. Teachers express that distance education could be used to

support formal education, but it would not be as effective and efficient as face-to-face education. The comparisons they make show that they want face-to-face education more. This comparison was specially made by teachers with distance education experience. Besides, the majority of those teachers are at the secondary school grade. Some of their opinions are as follows:

> T110. SS. N. "*It is not as effective as face-to-face education and, it is not easy to control the student in distance education.*"
>
> T122. SS. N. "*I find it negative in every aspect. Distance education can only be used to support formal education.*"

Two of the created themes are "class duration problems" and "distance education not being suitable for all courses". Teachers, most of whom are at the secondary school grade, state that while the duration of the class is longer for some courses in this system, it is limited for some other courses. This could be because distance education is not suitable for all courses and that the teachers were not given the necessary initiative. Especially, the secondary and vocational high school teachers express their opinions on the theme "distance education is not suitable for all courses". They believe that distance education is not practicable for their courses. Teachers without distance education experience emphasize both of these themes. Some of their opinions to refer these themes are as follows:

> T54. SS. Y. "*Excessive lecture durations.*"
>
> T97. SS. N. "*...Distance education should not be applied except for the basic courses...*"
>
> T207. HS. N. "*Distance education is not sufficient in vocational courses. Practice and skill development and professional competence cannot be measured. We, the teachers of vocational courses, are experiencing the biggest problems. Class durations are limited...*"

Based on the negative evaluations of the teachers, another theme called "parental problems" was created. Especially, preschool teachers state that parents are important in this process, but in some cases, they cause problems. The opinions highlight that the lack of parental support was occasionally felt and that sometimes there are problems due to the interference of the parents in the education process. These problems were mostly experienced by teachers without distance education experience. Some of their views on this theme are as follows:

> T59. SS. N. "*Families not supporting the students enough in this process.*"
>
> T141. PrS. Y. "*...The parents carrying out the duties of the children at the pre-school level most of the time...*"
>
> T195. PS. Y. "*Especially in literacy education, evaluations are not very decisive since families help the children in the background...*"

"Classroom management problem" appears as another of the problems of distance education. Most of the teachers at the secondary school grade say that it is difficult to control and manage the classes. They also say that the cameras being closed are also a factor. All teachers regardless of their distance education experience state to experience these problems:

T62. SS. N. *"...and the difficulty of maintaining control in the lesson."*

T68. HS. N. *"...students being busy with different things during the lesson since they cannot be controlled..."*

In the theme "the system problems", in which the teachers at the high school grade especially express their opinions, the EBA system used to perform distance education was meant with "the system". Teachers emphasize that this system has problems such as the absence of an attendance tracking and grading system and limitations in education, infrastructure, access, and effectiveness. The teachers without distance education experience mainly defend this opinion:

T204. SS. N. *"...effectiveness, accessibility, ..."*

T207. HS. N. *"...There has been no problem with the Zoom application, but we generally have difficulties in accessing EBA. An attendance tracking system should be adopted urgently."*

Teachers of nearly all grades claim to have a "shortage of material". This problem can be considered to occur in terms of inequality of opportunity and detection and access of suitable materials. Besides, it is possible to say that this problem stemming from being unable to find materials cause the students and teachers to have a negative approach through this system. Teachers without distance education experience make further emphases:

T68. HS. N. *"...some students had a shortage of materials..."*

T107. PrS. N. *"...the problems experienced in materials, tools, equipment, and supplies..."*

Most of the primary school teachers, regardless of having distance education experience, express that they have "administration problems". Negativities such as the administration not being well conducted, lacking information, having no standardization among the schools, and arbitrary applications taking place:

T200. HS. N. *"...I don't think it was a positive process at all and it wasn't administered well..."*

T221. SS. Y. *"Schools are not standardized due to different arrangements. The school administrations behaving nonsense..."*

Teachers state that another negative side of the system being applied is the "lack of evaluation and tracking student development". Especially the teachers at primary and high school grade consider the lack of evaluation, the inability to track student development and professional skill competencies, and the fact that the evaluations have no grade values, as problems. These negative opinions are more common among teachers without distance education experience.

T195. PS. Y. *"Especially in literacy education, evaluations are not decisive enough..."*

T207. HS. N. *"...Practice and skill development and professional competence cannot be measured..."*

T213. PS. N. *"...The teacher cannot effectively teachers the student's progress..."*

The other themes in the study, which collect the negative opinions of teachers about distance education, were "lack of emotional contact", "inability to fulfill responsibilities", "low success levels", "lack of peer interaction/education", "lack of active participation", "inadequacy of teachers", and "low motivation". Teachers say that they cannot establish emotional bonds with the students, their students do not/cannot fulfill their responsibilities and their motivation is low, their students lack peer education and interaction, and they were not active, and they felt inadequate in this process which has ended up with low success levels. Most of the teachers who defend these opinions are of secondary school grade and have distance education experience. Some of these opinions are as follows:

T32. SS. Y. *"Emotional contact with the student is not enough."*

T125. PS. Y. *"...low motivation..."*

T145. PS. Y. *"...inadequate interaction, limitation of peer interaction..."*

T220. SS. Y. *"The overall success rate is very low especially in village schools due to the low participation in distance education we adopt during the pandemic process and the absence of a control mechanism..."*

The themes "lack of planning", "being away from school", "obligation", "change of school and life", "self-discipline problem", and "problem of readiness level" were also created in the context of the negative evaluations of teachers. The majority of teachers emphasizing these themes are at the primary school grade and have no distance education experience.

T145. PS. Y. *"...the change of school environment and life routines, etc. ..."*

T205. HS. N. *"...it would be very successful if accomplished with self-discipline..."*

T233. SS. Y. *"The fact that the target audience has problems with the level of readiness hinders the education."*

Results, Discussion and Suggestions

A distance education system meant to meet the increasing demands when resources are scarce, to increase or maintain access, to use technology more efficiently, to distribute resources within the borders of the country, and where schools will not have to be "everything" for everyone has been adopted in the COVID-19 pandemic (Basom & Sherritt, 1992). By doing so, students, teachers, and educational tools in different places have come together thanks to technology and performed the educational activity (Aslantaş, 2014). While ensuring the continuity of education, on one hand, the health of individuals was not risked on the other hand. In addition, distance education has become even more sustainable for the economy, the world and society (Bourke & Simpson, 2009). Teachers' attitudes towards distance education, which they have applied during the pandemic process, have been negative. The same results were achieved in many studies examining teachers' attitudes towards distance education during the pandemic process (Metin, Emlik, Gürlek, & Demirbaş, 2021; Moçoşoğlu & Kaya, 2020; Yahşi & Kirkıç, 2020).

In this study, there has been no change between teachers' attitudes towards distance education and "gender", "school grade", "professional seniority", "being an administrator", "state of receiving information about distance education from institutions" and "state of receiving support for distance education from institutions". It has been determined that there is a change between "being experienced in distance education application". Likewise, with the studies conducted during the pandemic process, consistent results were obtained in terms of variables gender (Metin et al., 2021; Moçoşoğlu & Kaya, 2020; Yahşi & Kırkıç, 2020), school grade (Yahşi & Kırkıç, 2020), professional seniority (Kurnaz, Kaynar, Şentürk Barışık, & Doğrukök, 2020; Metin et al., 2021). Although there has been no change in professional seniority in this study, many studies (Moçoşoğlu & Kaya, 2020; Yahşi & Kırkıç, 2020), determined that the attitude towards distance education decreases as professional seniority increases. Professional experience, region, and experience of teachers are important variables of preparation for distance education adaptation (Alea, Fabrea, Roldan, & Farooqi, 2020). Teachers who state that they have prior knowledge about distance education are known to have a more positive attitude than the others (Yahşi & Kırkıç, 2020).

It was determined that most of the teachers did not have distance education experience before the pandemic. After and during the pandemic process, teachers have received information and support for distance education from their institutions. Institutions/schools play a vital role in the pandemic process. Because schools/institutions provide training and workshops to provide teachers with skills and knowledge in distance education, they are places that plan, implement and evaluate a school activity or program such as distance education to ensure their success (Alea et al., 2020). Informing and supporting teachers will change the perception towards distance education.

Teachers have carried out distance education mostly through their laptop computers and mobile phones on "zoom" application. Mustakim, Trisnaningsih, and Adha (2021) also determine that teachers use mobile phones and laptop computers in this process, and most of them choose "zoom" as their teaching application. Virtual classrooms, which are online environments providing time-space independence in education, are useful, economic, entertaining, and effective system structures as well as providing a different education-training environment (Erten, 2019b).

It was observed that the teachers do not have any difficulties in finding and accessing resources or materials while performing distance education, but they have difficulties in sharing them with the students. Now that the majority of the teachers are competent in terms of technological equipment and knowledge, the students are thought to have problems in these matters since their teachers have problems in sharing and teaching the classes with them. Technological infrastructure, knowledge, and level of use are important factors in distance education (Moçoşoğlu & Kaya, 2020; Valentine, 2002; Yahşi & Kirkıç, 2020). It is advised that teachers who follow technological developments and can use technological means well are more comfortable and productive in the distance education process (Erol Düzbastılar & Özel, 2021). The ability of teachers to adapt to technologies is related to the integration of technologies into learning environments (Çoklar & Kabakçı Yurdakul, 2017).

It was observed that the majority of the teachers haven't had any previous ideas about the distance education system that has been adopted during the pandemic process, but they currently have a positive approach. Accordingly, the majority of the teachers evaluate the applied system to be better than average. Despite the negative effects of the

pandemic process on education, digital learning has been a positive response (Mulenga & Marbán, 2020).

Even though the majority of the teachers do not have any experience in distance education, they have succeeded in this system thanks to the information and support of the institutions they work in and their efforts, and their evaluations of this education system have been positive. Although their attitudes towards distance education are negative, their perspectives differ since they consider distance education as an "educational system". It was observed that the teachers evaluate the communication, sharing, and support of all partners in addition to education and training during the pandemic process.

Teachers have made some positive evaluations towards the compulsory distance education system being applied during the pandemic, such as "lack of positive thinking, ensuring the continuity of education, being independent of time and place, health, pandemic conditions, access to information, effective use of time, dependence on fulling of conditions, use of technology, access to resources, conveniences offered, communication, parents' involvement in the educational environment, individualized education, learning responsibility, student participation, gathering attention, visual intelligence in the foreground, having an idea, desire for success, changing perspective, equal opportunities, researching new methods, multiple learning, individual learning, self-evaluation, gaining responsibility and self-discipline".

Teachers have some negative evaluations for the distance education applied during the pandemic under the titles "existence of negative and positive thoughts, inequality in education/inequality of opportunity and possibility in education, addiction, health, difficulty in adapting to the process, participation in the courses, lack of eye-physical contact, place disadvantage, lack of feedback, unsociability, inefficiency, lack of emotional contact, comparison with face-to-face education, class duration problems, parental problems, classroom management problems, system problems, shortage of material, lack of planning, being away from school, obligation, lack of learning, inability to fulfill responsibilities, distance education not being suitable for all courses, inadequacy of technology use skills, being boring, communication difficulties, low motivation, lack of peer interaction/education, change school and life, administration problems, lack of active participation, self-discipline problem, lack of evaluation and student development tracking, inadequacy of teachers, low success levels, and problem of readiness level".

The results of many distance education applications are similar in terms of positive and negative evaluations (Arslan & Şumuer, 2020; Hermanto & Srimulyani, 2021; Kurnaz et al., 2020; Maden, 2021; Mustakim, Trisnaningsih, & Adha, 2021; Özdoğan & Berkant, 2020). Covid-19 has negatively affected the education process (Alharthi, 2021). Learning losses are expected to increase, disadvantaged groups will be exposed to more negative effects, new disadvantaged groups will emerge, psychological and sociological problems will arise in individuals, and problems will occur in evaluation systems (Karip, April 20, 2020). It is stated that global inequalities in access to education will expand and the global learning crisis will get worse (IIEP-UNESCO, April 7, 2020). According to the report published by UNESCO, UNICEF, and the World Bank (2020), education losses, inequalities, and achievement gaps have increased during the pandemic process. Social participation has been reduced by 50 % (UNESCO, 2021).

In the TEDMEM (2021) evaluation report of the Turkish Education Association, it is stated that a whole generation will be permanently exposed to social, emotional,

and economic losses; and there are inequalities and inadequacies in current distance education. Besides, the report includes evaluations on the following subjects: capacity and needs differences of teachers, digital competencies, use of EBA, access to education, development of professional skills, students with special needs, psychological problems, central evaluation system, grading problem within the scope of measurement and evaluation. During the pandemic process, the digital has been revealed once again in Turkey (Erten, 2019a). It has been understood that distance education does not replace face-to-face education (Görgülü-Arı & Hayır-Kanat, 2020). However, distance education has been extremely effective in preventing crowding and ensuring social distancing during the pandemic process (Mustakim, Trisnaningsih, & Adha, 2021).

Together with the pandemic process, the study shows that the teachers have conflicting opinions on some issues such as continuity of education-inequality in education and difficulty in adapting to the process depending on the pandemic conditions. The themes belonging to some opinions are included in both positive and negative evaluations such as health, space, communication, interaction, technology use, feedback, material, comparison with face-to-face education, education, learning, evaluation, student participation, responsibility, and parents. While it was stated on one hand that the continuity of education has been ensured during the pandemic period with the distance education system, on the other hand, it was argued that inequality in education has appeared with the distance education system. This system is suitable considering the pandemic conditions, but there has also been a problem in adapting to this process. While teachers think that closing the schools and switching to distance education is positive for the danger of a pandemic, they also say that various physical, mental, sociological, and psychological problems are encountered due to being constantly in front of screens (computers, tablet computers, mobile phones, and TVs). While being independent of the place is a facility of distance education, the limitations, and distraction of the distance education environment can sometimes be a problem. While it was thought that the weakening of teacher-student, teacher-teacher, and student-student communication and interaction emerging due to being away from schools can be prevented by distance education, some of the teachers emphasize that communication and interaction would be limited and negatively affected.

Similarly, it was stated that the level of knowledge and skill regarding technology and its use will rise to higher levels, while it was being observed that many people do not even have a technology infrastructure due to the inequality of opportunity and possibility. While some of the teachers say that they received immediate feedback and evaluation, there was a richness in materials, it was better in comparison to face-to-face education, learning and education were at a high level, students could take responsibility for their learning, student participation was possible, and parents' involvement in the educational environment had positive benefits; some others express that they have opposite opinions. Due to the pandemic process and the fact that it is a new system used throughout the country, it is natural for teachers to have different and conflicting opinions for distance education. These results, occurring due to this extraordinary process, should be evaluated well and the strategies for future periods' education and training should be fortified. Various workshops can be organized to bring education and training entities together.

With the hybrid education system using the distance education and face-to-face education are used together, results emphasize consideration of the inequalities in having

access to technology. There is an obvious need to be attentive, to avoid increasing the digital divide, to provide special support for the disabled, to design learning materials in minority languages, to provide psychosocial support, and to render online learning more effective for immigrant and displaced children, being obtained (UNESCO, UNICEF, & World Bank, 2020). A plan should be made for students who cannot access distance education for various reasons and who cannot use distance education tools effectively even if they have the opportunity to access them, and they should be able to exercise their educational rights as soon as possible. Distance education, which has been adopted as an emergency education approach in this crisis period, needs to be handled in terms of having access as well as its content and materials. Content and material arrangements should be arranged for the best interests of the child. When switched back to face-to-face education, arrangements should be made to ensure that distance education continues along with face-to-face education in line with the principle of lifelong learning.

Concrete steps should be gradually taken to eliminate inequalities in education. In this process, the existence of digital, educational, financial, and regional gaps have been unearthed and they get deeper. The gaps between students and teachers should also be eliminated.

It has been observed that there is a management weakness. It is necessary to eliminate the problems experienced in the systems where distance education is performed, to eliminate the weaknesses of the systems, and to seek different ways for technological and internet access support.

Disadvantaged groups should not be ignored. Systems and software should be developed considering disabled and foreign nationals. Hardware support should also be provided for these people. Teacher training should be adjusted accordingly.

Awareness should be developed to prevent addiction and health problems caused by being in front of computers, tablet computers, mobile phones, TVs, and the internet for a long time and necessary regulations should be made in this regard. While doing this, all partners should work in coordination.

There should be an arrangement in which evaluation activities can be performed. Environments should be created to eliminate learning deficiencies. There should be studies to increase attendance at the courses. Other things to be done can be listed as follows: placing different stimuli in the systems to ensure eye and physical contact that should be between students and teachers, ensuring that the comfort of the home environment is an advantage rather than a disadvantage, organizing activities to prevent an unsociable environment, and making systemic additions to remove teacher-student communication barriers, to provide the lacking technological knowledge and skill achievements which still exist, and to reduce the boringness of the system to a minimum.

References

Ağır, F. (2007). *Özel okullarda ve devlet okullarında çalışan ilköğretim öğretmenlerinin uzaktan eğitime karşı tutumlarının belirlenmesi* [Determining the teachers' attitudes towards distance education in public primary school and private primary school]. (Unpublished master thesis). Balıkesir University Institute of Science Department, Balıkesir.

Ağır, F., Gür, H., & Okçu, A. (2007). Uzaktan eğitime karşı tutum ölçeği geliştirmesine yönelik geçerlik ve güvenirlik çalışması [Development of the attitude scale toward distance learning: Reliability and validity]. *E-journal of New World Sciences Academy*, *3*(2), 128–139.

Alea, L. A., Fabrea, M. F., Roldan, R. D. A., & Farooqi, A. Z. (2020). Teachers' Covid-19 awareness, distance learning education experiences and perceptions towards institutional readiness and challenges. *International Journal of Learning, Teaching and Educational Research*, *19*(6), 127–144. doi: https://doi.org/10.26803/ijlter.19.6.8

Alharthi, M. A. (2021). The effectiveness of virtual classrooms as an alternative to traditional classrooms during the Covid-19 pandemic: Problems and solutions. *Life Science Journal*, *18*(5), 24–32.

Alkan, C. (1981). Açık üniversite [Open university]. *Ankara University Journal of Faculty of Educational Sciences (JFES)*, *14*(1), 339–351. doi: https://doi.org/10.1501/Egifak_0000000738

Alkan, C. (1987). *Açık öğretim: Uzaktan eğitim sistemlerinin karşılaştırmalı olarak incelenmesi* [Open education: A comparative study of distance education systems]. Ankara: Ankara Üniversitesi Eğitim Bilimleri Fakültesi Yayınları, Yayın No: 157.

Alshammari, S. H. (2021). Determining the factors that affect the use of virtual classrooms: A modification of the UTAUT Model. *Journal of Information Technology Education: Research*, *20*, 117–135. doi: https://doi.org/10.28945/4709

Arslan, Y., & Şumuer, E. (2020). COVID-19 döneminde sanal sınıflarda öğretmenlerin karşılaştıkları sınıf yönetimi sorunları [Classroom management problems encountered by teachers in virtual classes during COVID-19 pandemic]. *Milli Eğitim Dergisi* [Journal of National Education], *49*(1), 201–230. doi: 10.37669/milliegitim.791453

Aslantaş, T. (2014). *Uzaktan eğitim, uzaktan eğitim teknolojileri ve Türkiye'de bir uygulama* [Distance education, distance learning technologies and applications in Turkey]. https://www.tankutaslantas.com/wp-content/uploads/2014/04/Uzaktan-E%C4%9Fitim-Uzaktan-E%C4%9Fitim-Teknolojileri-ve-T%C3%BCrkiyede-bir-Uygulama.pdf

Baki, A., & Gökçek, T. (2012). Karma yöntem araştırmalarına genel bir bakış [A general overview of mixed method research]. *Electronic Journal of Social Sciences*, *11*(42), 1–21.

Basom, M., & Sherritt, C. (1992). Higher education problems in the twenty-first century: A survey of higher education administrators and politicians. Paper presented at the *Annual Conference for International Higher Education Administrators*. Nice, France.

Bourke, J., & Simpson, O. (2009). *Sustainability in education: Is distance learning an answer?* Lower Hutt, New Zealand: The Open Polytechnic of New Zealand. https://repository.openpolytechnic.ac.nz/bitstream/handle/11072/1434/Bourke_Simpson_2009%20-%20Working%20Papers%20-%20WP_09_2.pdf?sequence=1

Can, A. (2016). *SPSS ile bilimsel araştırma sürecinde nicel veri analizi* [Quantitative data analysis in the scientific research process with SPSS] (4th Ed.). Pegem Akademi Publishing.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative. and mixed methods approaches* (3rd Ed.). SAGE Publications.

Çoklar, A. N., & Kabakçi Yurdakul, I. (2017). Technology integration experiences of teachers. *Discourse and Communication for Sustainable Education*, *8*(1), 19–31.

Ergin, C. (2010). *İköğretim öğretmenlerinin uzaktan eğitime bakış açıları (Van il örneği)* [Perspectives of primary teachers on distance education]. (Unpublished master thesis). Yüzüncü Yıl University Institute of Social Sciences, Van.

Erol Düzbastılar, M., & Özel, B. (2021). Online (çevrimiçi) müzik eğitiminde karşılaşılan sorunlar ve çözüm önerilerine ilişkin öğretmen görüşleri [Teachers' views on the problems and solutions in online music education]. In M. Eraslan, & A. Döngel (Eds.), *Eğitim Bilimleri Teori, Güncel Araştırmalar ve Yeni Eğilimler/2021* [Educational sciences theory, current studies and new trends/2021] (pp. 102–115). Cetinje-Montenegro: IVPE.

Erten, P. (2019a). Dijital bölünme [Digital divide]. *International Journal of Education Science and Technology*, *5*(1), 15–23.

Erten, P. (2019b). Opinions of preservice information technologies teachers on virtual classroom and implementations. *Batman University Journal of Life Sciences*, *9*(2), 236–252.

FATİH Project. (2021). *FATİH Project: Movement of enhancing opportunities and improving technology*. The Ministry of National Education of Republic of Turkey, The Directorate General of Innovation and Educational Technologies. http://fatihprojesi.meb.gov.tr/en/index.html

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design and evaluate research in education* (8th Ed.). New York: The McGraw-Hill Companies.

Görgülü-Arı A., & Hayır-Kanat, M. (2020). COVID-19 (Koronavirüs) üzerine öğretmen adaylarının görüşleri [Prospective teacher' views on Covid-19 (Coronavirus)]. *Van Yüzüncü Yıl Üniversitesi Sosyal Bilimler Enstitüsü Dergisi* [Van Yüzüncü Yıl University the Journal of Social Sciences Institute] (Outbreak Diseases Special Issue), 459–492.

Heasly, B., Iliško, D., Salīte, I., & Lindner, J. (2020). The value of process and pedagogy through the sustainability prism. *Discourse and Communication for Sustainable Education*, *11*(2), 1–4.

Hermanto, Y. B., & Srimulyani, V. A. (2021). The challenges of online learning during the Covid-19 pandemic. *Jurnal Pendidikan Dan Pengajaran* [Journal of Education and Teaching], *54*(1), 46–57.

Horzum, M. B., Albayrak, E., & Ayvaz, A. (2012). Sınıf öğretmenlerinin hizmet içi eğitimde uzaktan eğitime yönelik inançları [Elementary classroom teachers' beliefs on in-service training via distance education]. *Ege Eğitim Dergisi* [Ege Journal of Education], *13*(1), 56–72.

IEP-UNESCO. (2020, April 7). *What price will education pay for COVID-19?* http://www.iiep.unesco.org/en/what-price-will-education-pay-covid-19-13366

İşman, A. (2011). Uzaktan eğitim [Distance education] (Extended 4. Ed.). Ankara: Pegem Akademi Publishing.

Karip, E. (2020, April 20). *COVİD-19: Okulların kapatılması ve sonrası* [COVID-19: School closures and beyond]. Ankara: TEDMEM. https://tedmem.org/vurus/covid-19-okullarin-kapatilmasi-ve-sonrasi#note-3322-4

Kocayiğit, A., & Uşun, S. (2020). Milli Eğitim Bakanlığına bağlı okullarda görev yapan öğretmenlerin uzaktan eğitime yönelik tutumları (Burdur İli Örneği) [Attitudes of teachers working in schools affiliated to Ministry of National Education towards distance education (Example of Burdur province)]. *Avrasya Uluslararası Araştırmalar Dergisi* [International Journal of Euroasian Research], *8*(23), 285–299.

Kurnaz, A., Kaynar, H., Şentürk Barışık, C., & Doğrukök, B. (2020). Öğretmenlerin uzaktan eğitime ilişkin görüşleri [Teachers' views on distance learning]. *Milli Eğitim Dergisi* [Journal of National Education] (Special Issue), *49*(1), 293–322. doi: 10.37669/milliegitim.787959

Maden, H. (2021). *Uzaktan eğitim sürecinde işlenen derslere yönelik okul yöneticileri ve öğretmen görüşleri* [Opinions of school administrators and teachers about the lessons taught in the distance education process] (Unpublished non-thesis master's project). Pamukkale Üniversitesi Eğitim Bilimleri Enstitüsü, Denizli.

Metin, M., Emlik, H., Gürlek, E. H., & Demirbaş, S. (2021). Uzaktan eğitime yönelik öğretmen görüşlerinin farklı değişkenler açısından incelenmesi [The investigating of teachers' views about distance education applications in terms of different variables]. *Studies in Educational Research and Development*, *5*(1), 19–47.

Ministry of National Education (MEB). (2021). *Turkey's education vision 2023*. https://2023vizyonu.meb.gov.tr/doc/2023_VIZYON_ENG.pdf

Ministry of National Education Strategy Development Presidency. (2019). *Millî Eğitim Bakanlığı 2019–2023 stratejik planı* [2019–2023 strategic plan of the Ministry of National Education]. http://sgb.meb.gov.tr/meb_iys_dosyalar/2019_12/31105532_Milli_EYitim_BakanlYYY_2019-2023_Stratejik_PlanY__31.12.pdf

Ministry of National Education Strategy Development Presidency. (2020). *Millî Eğitim istatistikleri: Örgün eğitim 2019/'20* [National Education statistics: Formal education 2019/'20]. Ankara: Ministry of National Education Publications.

Moçoşoğlu, B., & Kaya, A. (2020). Koronavirüs hastalığı (COVID-19) sebebiyle uygulanan uzaktan eğitime yönelik öğretmen tutumlarının incelenmesi [Investigation of teachers' attitudes towards distance education applied due to coronavirus disease (COVID-19)]. *Kahramanmaraş Sutcu Imam University Journal of Education*, *2*(1), 15–43.

Mulenga, E. M., & Marbán, J. M. (2020). Is COVID-19 the gateway for digital learning in mathematics education? *Contemporary Educational Technology*, *12*(2), ep269. doi: https://doi.org/10.30935/cedtech/7949

Mustakim, M., Trisnaningsih, T., & Adha, M. M. (2021). The effectiveness of online collaborative learning during Covid-19 pandemic. *Proceedings of the 4th Sriwijaya University Learning and Education International Conference (SULE-IC 2020)*. Advances in Social Science, Education and Humanities Research Series, 513, 256–262. Atlantis Press.

Özdoğan, A., & Berkant, H. (2020). COVID-19 pandemi dönemindeki uzaktan eğitime ilişkin paydaş görüşlerinin incelenmesi [The examination of stakeholders' opinions on distance education during the COVID-19 epidemic]. *Milli Eğitim Dergisi* [Journal of National Education] (Special Issue), *49*(1), 13–43. doi: 10.37669/milliegitim.788118

Ozen, R. (2008). Inservice training (inset) programs via distance education: Primary school teachers' opinions. *Turkish Online Journal of Distance Education-TOJDE*, *9*(1), 217–232.

Perienen, A. (2020). Frameworks for ICT integration in mathematics education – a teacher's perspective. *EURASIA Journal of Mathematics, Science and Technology Education*, *16*(6), em1845. doi: https://doi.org/10.29333/ejmste/7803

Salīte, I. (2016). Searching for sustainability in teacher education and educational research: Experiences from the Baltic and Black Sea Circle Consortium for educational research. *Discourse and Communication for Sustainable Education*, *6*(1), 21–29.

Şenel, S., & Kutlu, Ö. (2015). Ankara Üniversitesi uzaktan eğitim programına katılan öğrencilerin akademik başarılarını yordayan faktörler [The factors predicting academic achievement of Ankara University distance education students]. *Eğitimde ve Psikolojide Ölçme ve Değerlendirme Dergisi* [Journal of Measurement and Evaluation in Education and Psychology], *6*(2), 177–193.

Teddlie, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research*, *1*(1), 77–100. doi: 10.1177/2345678906292430

TEDMEM. (2021). *2020 Eğitim değerlendirme raporu* [2020 Education evaluation report]. (TEDMEM Değerlendirme Dizisi 7) [TEDMEM Evaluation Series 7]. Ankara: Türk Eğitim Derneği.

UNESCO. (2021). *COVID-19 impacts youth voices and hampers participation*. https://en.unesco.org/news/covid-19-impacts-youth-voices-and-hampers-participation

UNESCO, UNICEF, & World Bank. (2020). *What have we learnt?: Overview of findings from a survey of ministries of education on national responses to COVID-19*. UNESCO, UNICEF, World Bank. https://openknowledge.worldbank.org/handle/10986/34700

United Nations (UN). (2022). *Quality Education: Goal 4 Targets*. United Nations Turkey. https://turkey.un.org/en/sdgs/4

Ülkü, S. (2018). *İlkokullarda görev yapan öğretmenlerin uzaktan eğitime yönelik tutumları* [Attitudes of primary school teachers' distance education] (Unpublished master thesis). Abant İzzet Baysal University Department of Educational Sciences, Bolu.

Valentine, D. (2002). Distance learning: Promises, problems, and possibilities. *Online Journal of Distance Learning Administration*, *5*(3). https://www.westga.edu/~distance/ojdla/fall53/valentine53.html

World Health Organization (WHO). (2020). *Turkey's response to COVID-19: First impressions*. Copenhagen: WHO Regional Office for Europe. Document number: WHO/EURO:2020-1168-40914-55408. https://apps.who.int/iris/bitstream/handle/10665/335803/WHO-EURO-2020-1168-40914-55408-eng.pdf

Yahşi, Ö., & Kırkıç, K. A. (2020). Uzaktan eğitim sürecinde öğretmenlerin uzaktan eğitime yönelik tutumlarının incelenmesi [Analysis of teachers' attitudes towards distance education in the distance education process]. *Turkish Studies-Education*, *15*(5), 3827–3847. doi: https://dx.doi.org/10.47423/TurkishStudies.46136

Yazıcıoğlu, Y., & Erdoğan, S. (2014). *SPSS Uygulamalı Bilimsel Araştırma Yöntemleri* [SPSS applied scientific research methods] (4th Ed.). Ankara: Detay Publishing.

Correspondence concerning this paper should be addressed to Pinar Erten, Bingol University, Bingol, Turkey. Email: perten80@gmail.com