



Teachers' views on distance education: Turkey in the Covid-19 pandemic process

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Abstract

In this research, it is aimed to determine the experiences of teachers in depth by examining their perspectives on the positive or negative situations they had experienced in the distance education process during the Covid-19 pandemic period. The research was conducted via a mixed method research design in which both qualitative and quantitative research methods were utilized together. While the measurement tool prepared by the researchers was used in the quantitative part of the study, two different methods were used in the qualitative part. In the first method, the data collected from the participants with the measurement tool were analyzed and each scale item was interpreted with a qualitative approach. In the second method, the data collected from the teachers with a semi-structured interview form were interpreted with content and descriptive analysis. The study group of the research consists of 209 teachers who were involved in distance education or hybrid education due to Covid-19 in different regions and at different levels. The quantitative analyzes of the data obtained from the surveys were carried out by using SPSS 25 and the qualitative analyzes were carried out by using MAXQDA 2020 Analytics Pro. According to the obtained quantitative findings, teachers expressed negative opinions about distance education and stated that they considered themselves partially sufficient. It has been determined that according to the qualitative findings, in the category of positive aspects of distance education, the codes with the most opinions were time saving, increase in technological knowledge and flexibility in place; In the negative aspects category were inequality of opportunity, social-emotional problems and distraction.

Keywords: Covid-19 pandemic, distance education, views of teacher, education in Turkey

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1. Introduction

With the Covid-19 pandemic, which emerged in late 2019 and has had an impact worldwide by 2020, transformations have occurred in many fields, primarily in the field of health. One of the most important of these transforming areas has been the education

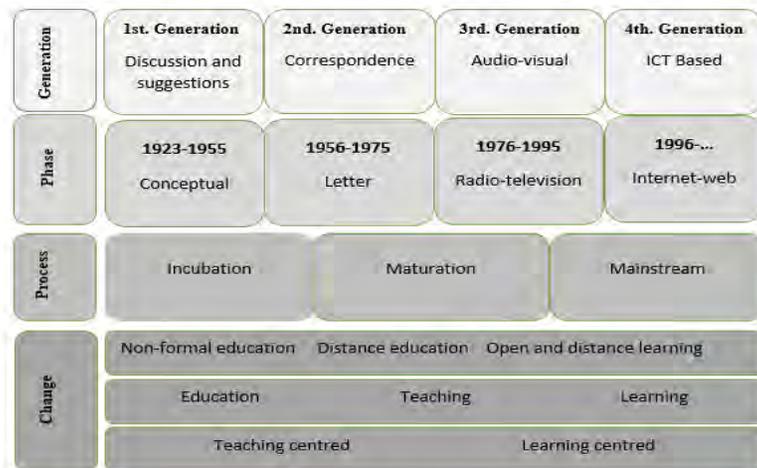
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system. When the negative effects of pandemic conditions on health were evaluated, practices such as minimizing or eliminating face-to-face training were implemented. This process has driven countries to pursue new avenues of education, making distance education obligatory at all levels. Therefore, Turkey has been one of the countries to implement the distance education system. With the Covid-19 pandemic, which emerged in late 2019 and has had an impact worldwide by 2020, transformations have occurred in many fields, primarily in the field of health. One of the most important of these transforming areas has been the education system. When the negative effects of pandemic conditions on health were evaluated, practices such as minimizing or eliminating face-to-face training were implemented. This process has driven countries to pursue new avenues of education, making distance education obligatory at all levels. Therefore, Turkey has been one of the countries to implement the distance education system. As a matter of fact, according to Lloyd, Byrne, and McCoy (2012), it has been stated that providing support to teachers in pedagogical and material design rather than just providing technical support facilitates teachers' adaptation to distance education and contributes to an increase in their performance. Therefore, it is expected that the steps taken by the Ministry of National Education (MEB) by providing in-service training to teachers will also solve the adaptation problem that teachers experience against distance education.

Distance education, which means that education reaches students on a web-based basis through developing internet technologies (Newby, Stepich, Lehman & Russell, 2006); It is also seen as an alternative to the solution of time, space and financial problems (Kışla, 2016). However, in order to manage these alternatives effectively, it would be appropriate for educational organizations to be prepared for this process with the right methods and conditions. As a matter of fact, Demir (2014) stated that there is a spiral structure among the elements of distance education and that the efficient and effective construction of this structure will positively affect the success of distance education. However, when the history of distance education, which can be carried out with synchronous (synchronous) and asynchronous (non-synchronous) tools, is examined, it is noteworthy that asynchronous tools are used to a large extent (Düzgün ve Sulak, 2020). According to Stein, Wanstreet, and Calvin (2009), the most beneficial point in asynchronous interaction is that students have the opportunity to access education anytime and anywhere. In synchronous interaction, it can be mentioned that there is a current image/sound flow and feedback can be received instantly. Therefore, in both cases, the aim is to enable the student to participate more actively in the distance education process (Düzgün ve Sulak, 2020). The importance and need of distance education has revealed due to reasons such as the increase in the demands of individuals for education with the developing technology and knowledge, the aim of providing educational services to large population, the view of providing equal opportunities in education, the desire to fulfill the educational needs of the students who cannot continue

formal education for various reasons, and the efforts to eliminate the limitations of traditional education (Yalın, 2007). Therefore, distance education is important in terms of providing the continuation of education by administrators, teachers and students by replacing this education system rather than being a part of today's education system, both in terms of fulfilling the educational needs of individuals and increasing the professional motivation of teachers and administrators. At the same time, with the pandemic process, it is also quite important that distance education programs become able to meet the educational needs of individuals and being on the agenda. Therefore, with the distance education system, which has become a part of technology and our lives, it has become inevitable for teachers to be affected by constantly updated changes.

It is possible to say that the development of distance education in Turkey dates back to the 1920s. It is known that distance education has been discussed for about 40 years since these dates. In the following processes, it is seen that distance education has started to take place in many education levels, especially in universities. It can be said that distance education was not at a sufficient level, especially in this process that started in the 1990s, due to the insufficient development of technology and the deficiencies in the technological infrastructure processes of the Ministry of National Education (MEB). However, with the Covid-19 pandemic, it is seen that there are rapid developments and the efforts to improve the infrastructure have increased (Çok, 2021). With the pandemic, it can be predicted that distance education will become widespread in the coming years and its use in educational organizations will increase at an important point. It has been seen that the Ministry of Education has further developed the Education Information Network (EBA) system during the pandemic process, and even tried to facilitate students' access to the distance education system by establishing EBA support points in some schools they have determined. It is possible to examine the development generations and phases of distance education in Turkey in Figure 1.



Reference: Bozkurt, 2017

Figure 1. Generations and phases of distance education in Turkey

When Figure 1 is examined, it is possible to state that the distance education process in Turkey has become active after the 1990s and reached a turning point with the Covid-19 pandemic. As a result, it is believed that the effective implementation of distance education and the quality of student education would vary based on instructor performance, which is the output of positive/negative attitudes towards the distance education process. In this sense, when the literature in the world and in Turkey is examined, it is seen that the studies on distance education related to teachers are focused on during the Covid-19 pandemic. Some of studies have been ranged as (Adıgüzel, 2020; Almanthari, Maulina & Bruce, 2020; Alper, 2020; Arı ve Kanat, 2020; Bakioğlu & Çevik, 2020; Balaman & Hanbay Tiryaki, 2021; Bayburtlu, 2020; Börnert-Ringleb, Casale & Hillenbrand, 2021; Çiftçi & Aydın, 2020; Demir & Kale, 2020; Demir & Özdaş, 2020; Düzgün & Sulak, 2020; Gayvoronskiy, 2020; Hebebe, Bertiz & Alan, 2020; Karakuş, Ucuzsatar, Karacaoğlu, Esendemir & Bayraktar, 2020; Karatepe, Küçükgençay & Peker, 2020; Kurnaz, Kaynar, Barışık & Doğrukök, 2020; Kuset, Özgem, Şaşmacıoğlu & Güldal Kan, 2021; Metin, Emlik, Gürlek ve Demirbaş, 2021; Özdoğan & Berkant, 2020; Özkul, Kırnık, Dönük, Altunhan & Altunkaynak, 2020; Rasmitadila, Aliyyah, Rachmadtullah, Samsudin, Syaodih, Nurtanto & Tambunan, 2020; Tartavulea, Albu, Albu, Dieaconescu & Petre, 2020; Tzivinikou, Charitaki & Kagkara, 2020; Ünal & Bulunuz, 2020; Yalman Polatlar & Bayram Tuncay, 2020; Yıldız & Seferoğlu, 2020; Yılmaz ve Üredi, 2020). When the studies conducted in this context are examined, it is noteworthy that teachers play a significant role in the process of distance education and in improving the efficiency of distance education. Thus, it is believed that disclosing instructors' positive and negative experiences with distance education during the pandemic period may aid in structuring this process. Ozcan, Tosun, and Eken (2020) have emphasized the importance of effectively structuring distance education processes, particularly in times of epidemics, to avoid interruptions to education.

As a result, it is important to take into account the views of teachers, who are one of the primary stakeholders in distance education, and structure distance education in a conscious and systematic manner throughout the Covid-19 pandemic period. The main problem of this study has been determined as "What are the views of teachers about distance education during the Covid-19 pandemic period?"

2. Method

In the present study, a mixed-method design, in which qualitative and quantitative research techniques are used together, was adopted. According to Creswell (2013), combining quantitative and qualitative methods in a mixed-method design will result in a better understanding of research problems than utilizing either methodology alone. While the measurement tool prepared by researchers was employed in the quantitative part of the study, two distinct methods were used in the qualitative part. In the first method, the data collected from the participants with the measurement tools were analysed, and each scale item was interpreted with a qualitative approach. The second method involved conducting content and descriptive analyses of data received from teachers via a semi-structured interview form

2.1. Study group

The study group consists of 209 instructors who are enrolled in distance education or hybrid education due to Covid-19 in various regions and at various levels and who were chosen via convenient/accidental sampling from a non-random sampling method. Demographic information for the teachers in the study is shown in Table 1.

Table 1. Demographic information

Demographic characteristics	Frequency (N=209)	Percentage (%)
Gender		
Female	159	76.1
Male	50	23.9
Age group		
20 – 29 years	26	12.4
30 – 39 years	93	44.5
40 – 49 years	45	21.5
50 – 59 years	32	15.3
Above 60 years	13	6.2
Seniority		
1 – 5 years	28	13.4
6 – 10 years	51	24.4
11 – 15 years	42	20.1
16 – 20 years	31	14.8
Above 21 years	57	27.3
Marital Status		

Married	162	77.5
Single	47	22.5
Preference for the method of conducting distance education		
Synchronicity	100	47.8
Asynchronous	2	1
Mixed	107	51.2
Preference for the method of Education		
Hybrid training	136	65.1
Distance Learning	73	34.9

When Table 1 is examined, it is seen that 76.1% of the 209 teachers participating in the research are female and 23.9% are male. However, 44.5% of the participants are between the ages of 30-39; 27.3% of them have a seniority of 21 years or more; 77.5% of them are married. 51.2% of the participants stated that distance education should be carried out with a mixed method in which synchronous and asynchronous methods are used together, and 2% with asynchronous methods. 65.1% of the participants stated that the hybrid education model was more effective in the Covid-19 process, while 34.9% stated that distance education was more effective.

2.2. Data collection and analysis

Qualitative and quantitative data were collected simultaneously in the study. In order to collect the quantitative data of the scale, two separate measurement tools were developed by the researchers. Measurement tools and semi-structured interview forms were used simultaneously in the collection of qualitative data. While developing the measurement tool, the literature was examined, and the opinions of field teachers were gathered. New studies in the field (Kurnaz et al., 2020; Kurnaz and Serçemeli, 2020) were used to develop the item pool. The developed item pool was examined by 4 experts and 6 teachers in the field, and necessary additions/removals/corrections were made in line with the suggestions. The questionnaire is divided into four parts: the first part contains demographic data, the second part contains a six-question measurement tool constructed using the three-point Likert type, the third part contains a 33-question scale constructed using the five-point Likert type, and the fourth part contains a semi-structured interview form with two questions. While 209 teachers participated in the first three parts of the questionnaire, 192 teachers participated in the fourth part. Since items 24, 25, 26, 30, and 32 of the 33-item measurement tool are reversed items, their average scores were calculated by reversing them in the SPSS program. After being

coded, the survey form was delivered to the participants via the access link created over the Google Form application.

Quantitative analyzes of the data obtained from the surveys were made using SPSS 25, and qualitative analyzes were made using MAXQDA 2020 Analytics Pro. Values such as frequency, percentage, mean, t-test, ANOVA, Cronbach's Alpha were calculated with SPSS 25. The MAXQDA program began with the selection of open-ended questions as the theme, followed by the creation of codes. After the text was coded, word clouds revealing the most frequently repeated concept were displayed in the responses. For the reliability calculation of qualitative data, Miles and Huberman's (1994) formula “(Reliability = Consensus / Consensus + Disagreement x100)” was used. According to the coding control, the consensus among coders is expected to be at least 80%, which explains internal consistency (Miles & Huberman, 1994; Patton, 2002: Akt. Baltaci, 2017). Cronbach's Alpha reliability level for the 33-item measurement tools 85.

The Kolmogorov-Smirnov test was used to determine if the quantitative data had a normal distribution and the significance of the difference in instructors' views on demographic variables. The skewness and kurtosis values were examined, with the significance level obtained from the Kolmogorov-Smirnov test results being $p < 0.05$. Since the skewness and kurtosis values were within the acceptable range for parametric tests, it was accepted that the data had a normal distribution. According to Tabachnick and Fidell (2013), skewness and kurtosis values between +1.5 and -1.5 indicate that the data are normally distributed. Therefore, while the t-test was employed for variables such as gender, marital status, and preferred educational model, ANOVA was used for variables such as seniority, age, and method of conducting distance education.

Cohen's d formula was used to interpret the values determined by the t-test in the effect size calculation of the descriptive values obtained. The difference between the means of two events or groups is referred to as the effect size. Cohen's d formula (Cohen, 1988) is widely preferred. Accordingly, the criteria of “ $d \geq 1$ very large effect, 0.8 large effects, 0.5 medium effects, 0.2 small effects” were taken into account in the interpretation. Tukey-b and Bonferroni test and mean scores were used to find the source of the difference in the results obtained with ANOVA.

3. Results

Since the mixed design was used in this study, the quantitative and qualitative findings were analyzed and interpreted together.

3.1. Readiness of teachers for distance education

In Table 2, the frequencies and percentages of the answers given by the teachers to the readiness questions regarding distance education are given.

Table 2. Readiness of teachers for distance education

Questions	Frequency	Percentage
Before the distance education process started, I had sufficient knowledge about how to use web 2.0 tools.		
Yes	81	38.8
No	39	18.7
Partly	89	42.6
Before I started distance education, I used web 2.0 tools in the teaching process.	71	34.0
Yes	48	23.0
No	90	43.0
Partly		
Before I started distance education, I took a course or in-service training for distance education from the institution I worked for.	51	24.4
Yes	109	52.2
No	49	23.4
Partly		
I learned to use Web 2.0 tools with my own efforts during the distance education process.	113	54.1
Yes	24	11.5
No	72	34.4
Partly		
I consider myself well-equipped and competent in distance education.	126	60.3
Yes	19	9.1
No	64	30.6
Partly		
I have technical problems connecting to the course in distance education.	55	26.3
Yes	82	39.2
No	72	34.4
Partly		

When Table 2 is examined, the item with which teachers agree the most (60.3%) among the items related to the participant's readiness for distance education is "I consider myself well-equipped and competent in distance education." While 60.3% of the teachers consider themselves equipped and sufficient in distance education, 9.1% do not consider themselves equipped and sufficient. 54.1% of the teachers stated that they learned to use web 2.0 tools with their own efforts during the distance education process, and 11.5% of them stated that they did not learn with their own efforts during the distance education process. It is understood that 52.2% of the participants did not receive a course or in-service training for distance education from the institution they worked before the distance education started, and 23.4% received partial in-service training. It is understood that 43% of the teachers partially used web 2.0 tools in the teaching process before the start of distance education, and 23% did not. It is seen that 42.6% of the

teachers partially had enough information about how to use web 2.0 tools before the distance education process started, while 18.7% did not have enough information. It is understood that 39.2% of the teachers did not experience technical problems in connecting to the lesson in distance education, and 26.3% of them had technical problems.

3.2. Opinions of teachers on distance education

In Table 3, teachers' views on distance education are given.

Table 3. Opinions of teachers on distance education

Expressions	I strongly	I disagree	what I Agree what I disagree	I Agree	I strongly agree
	N	N	N	N	N
	%	%	%	%	%
1- The inability to communicate with students face-to-face in distance education affects the educational process negatively.	7 (%3.3)	11 (%5.3)	27 (%12.9)	59 (%28.2)	105 (%50.2)
2- Classroom management in the distance education process is more difficult than face-to-face education.	1 (%6.7)	18 (%8.6)	25 (%12)	46 (%22)	106 (%50,7)
3- Distance education is insufficient in courses with a lot of applied content.	7 (%3.3)	10 (%4.8)	14 (%6.7)	50 (%23.9)	128 (%61.2)
4- In the distance education process, the attention of the students is distracted in a shorter time compared to face-to-face education.	8 (%3.8)	13 (%6.2)	19 (%9.1)	44 (%21.1)	125 (%59.8)
5- In distance education, students use other internet or game sites during the course period.	20 (%9.6)	21 (%10)	61 (%29.2)	58 (%27.8)	49 (%23.4)
6- Being in front of a screen for a long time in distance education distracts students.	4 (%1.9)	7 (%3.3)	18 (%8.6)	55 (%26.3)	125 (%59.8)
7- Distance education prevents learning by living by doing.	7 (%3.3)	18 (%8.6)	43 (%20.6)	42 (%20.1)	99 (%47.4)
8- Distance education courses require more preliminary preparation than face-to-face education.	4 (%1.9)	11 (%5.3)	44 (%21.1)	64 (%30.6)	86 (%41.1)
9- Students have problems connecting to lessons due to	3	22	35	87	62

technical problems in distance education.	(%1.4)	(%10.5)	(%16.7)	(%41.6)	(%29.7)
10- The lessons in distance education are more tiring than face-to-face education.	8 (%3.8)	13 (%6.2)	24 (%11.5)	52 (%24.9)	112 (%53.6)
11- It is difficult to communicate directly with students in distance education.	16 (%7.7)	20 (%9.6)	29 (%13.9)	58 (%27.8)	86 (%41.1)
12- It is difficult to appeal to all senses in distance education.	6 (%2.9)	15 (%7.2)	20 (%9.6)	64 (%30.6)	104 (%49.8)
13- Learning in distance education is less permanent than face-to-face education.	23 (%11)	26 (%12.4)	47 (%22.5)	51 (%24.4)	62 (%29.7)
14- In the distance education process, students have difficulty in communicating with each other.	5 (%2.4)	18 (%8.6)	40 (%19.1)	55 (%26.3)	91 (%43.5)
15- Homework control is difficult in distance education.	14 (%6.7)	19 (%9.1)	31 (%14.8)	35 (%16.7)	110 (%52.6)
16- In distance education, students have difficulty expressing their thoughts and wishes.	28 (%13.4)	43 (%20.6)	45 (%21.5)	51 (%24.4)	42 (%20.1)
17- Distance education creates inequality of opportunity among students.	23 (%11)	24 (%11.5)	22 (%10.5)	42 (%20.1)	98 (%46.9)
18- In the distance education process, the fact that students connect to the lesson without turning on their cameras negatively affects the education-teaching process.	7 (%3.3)	7 (%3.3)	16 (%7.7)	34 (%16.3)	145 (%69.4)
19- Motivation of students in distance education is lower than in face-to-face education.	6 (%2.9)	12 (%5.7)	23 (%11)	60 (%28.7)	108 (%51.7)
20- Teacher motivation in distance education is lower than in face-to-face education.	24 (%11.5)	30 (%14.4)	37 (%17.7)	44 (%21.1)	74 (%35.4)
21- In distance education, the daily course duration should be less than face-to-face education.	6 (%2.9)	9 (%4.3)	16 (%7.7)	48 (%23)	130 (%62.2)
22- Measurement and evaluation methods should be changed in distance education.	0 (%0)	6 (%2.9)	29 (%13.9)	51 (%24.4)	123 (%58.9)
23- Students can gain course gains in the distance education process within the time specified in the annual plans.	22 (%10.5)	31 (%14.8)	46 (%22)	66 (%31.6)	44 (%21.1)
24- Lessons in distance education are as efficient as face-to-	46	48	53	42	20

face education.	(%22)	(%23)	(%25.4)	(%20.1)	(%9.6)
25- Eba tv and eba application are sufficient for conducting distance education.	86 (%41.1)	53 (%25.4)	48 (%23)	14 (%6.7)	8 (%3.8)
26- Distance education meets the education and training needs of students.	33 (%15.8)	60 (%28.7)	63 (%30.1)	38 (%18.2)	15 (%7.2)
27- The methods and techniques used in distance education are remarkable for students.	20 (%9.6)	39 (%18.7)	72 (%34.4)	57 (%27.3)	21 (%10)
28- Distance education saves time.	28 (%13.4)	32 (%15.3)	49 (%23.4)	59 (%28.2)	41 (%19.6)
29- Distance education improves students' self-learning skills.	20 (%9.6)	31 (%14.8)	61 (%29.2)	62 (%29.7)	35 (%16.7)
30- In the distance education process, each student is allocated as much time as in face-to-face education.	52 (%24.9)	58 (%27.8)	31 (%14.8)	49 (%23.4)	19 (%9.1)
31- Most of the students who attend school in face-to-face education participate in distance education.	32 (%15.3)	28 (%13.4)	32 (%15.3)	77 (%36.8)	40 (%19.1)
32- Distance education is applicable for all courses.	72 (%34.4)	45 (%21.5)	43 (%20.6)	31 (%14.8)	18 (%8.6)
33- Courses carried out on Eba TV support the learning process of students.	30 (%14.4)	37 (%17.7)	69 (%33)	52 (%24.9)	21 (%10)

When Table 3 was examined, the teachers mostly agreed on the items "Being in front of a screen for a long time in distance education distracts students." (86.1% I agree and I strongly agree percentages were given together by gathering) and "In the distance education process, the fact that students connect to the lesson without turning on their cameras negatively affects the education-teaching process." (85.7%), while they agreed the least on the items "Courses carried out on Eba TV support the learning process of students." (34.9%) and "The methods and techniques used in distance education are remarkable for students." (37.3%). According to the answers of the teachers, the items with the most and least percentages are given below from most to least. Teachers stated that being in front of the screen for a long time in distance education distracts students (86.1%), in distance education process, the fact that students connect to the lesson without turning on their cameras negatively affects the education-teaching process (85.7%), in distance education, the daily course duration should be less than face-to-face education (85.2%), Distance education is insufficient in courses with a lot of applied

content (85.1%), measurement and evaluation methods should be changed in distance education (83.3%), in the distance education process, the attention of the students is distracted in a shorter time compared to face-to-face education (80.9%), it is difficult to appeal to all senses in distance education (80.4%), motivation of students in distance education is lower than in face-to-face education (80.4%), the lessons in distance education are more tiring than face-to-face education (78.5%), the inability to communicate with students face-to-face in distance education affects the educational process negatively (78.4%), classroom management in the distance education process is more difficult than face-to-face education (72.7%), distance education courses require more preliminary preparation than face-to-face education (71.7%), students have problems connecting to lessons due to technical problems in distance education (71.3%), in distance education process students have difficulty in communicating with each other (69.8%), - It is difficult to communicate directly with students in distance education (68.9%), homework control is difficult in distance education (69.3), distance education prevents learning by doing (68.4%), distance education creates inequality of opportunity among students. (67%), Eba tv and eba application are sufficient for conducting distance education (66.5%), Teacher motivation in distance education is lower than in face-to-face education (56.5%), most of the students who attend school in face-to-face education participate in distance education (55.9%), distance education is not applicable for all courses (55.9%), learning in distance education is less permanent than face-to-face education (54.1%), each student cannot be allocated as much time as face-to-face education in distance education (52.7%), students can gain course gains in the distance education process within the time specified in the annual plans (52.7%), in distance education, students use other internet or game sites during the course period (51.2%), distance education saves time (47.8%), distance education improves students' self-learning skills (46.4%), distance education is not as efficient as face-to-face education (45%), distance education does not meet the education and training needs of students (44.5%), in distance education, students have difficulty in expressing their thoughts and wishes (44.5%), the methods and techniques used in distance education are remarkable for students (37.3%), Courses carried out on Eba TV support the learning process of students (34.9%).

3.3. Teachers' views on distance education regarding personal variables

It was examined whether there was a significant difference in the views of teachers on distance education regarding their personal variables. Accordingly, the findings related to "whether there is a difference in teachers' views on distance education according to gender, marital status, education model preference, seniority, age and preference of conducting distance education" are given in the tables below, respectively.

Table 4. T-test by gender

	Gender	N	X	Sd	t	df	p	Cohen d
Teachers' views on distance education	Female	159	3.72	0.50	-3.027	207	0.00	0.52
	Male	50	3.96	0.37				

Teachers' views on distance education were analyzed by gender with a t-test; The obtained results were listed in Table 4. When the data were examined, it was determined that gender made a significant difference ($p < 0.05$) in terms of teachers' scores on distance education. According to the result, the scores of male teachers regarding their view on distance education are higher than the scores of female teachers. This indicates that male teachers hold more unfavorable attitudes than female teachers. It can be stated that the Cohen d value calculated for the variables that have a significant difference on the obtained data is 0.52, and in this case, the difference has a moderate size.

Table 5. T-test by marital status

	Marital Status	N	X	Sd	t	df	p
Teachers' views on distance education	Married	162	3.80	0.46	1.23	207	0.21
	Single	47	3.70	0.55			

The teachers' views on distance education were analyzed with the t-test according to their marital status, and the findings were presented in Table 5. When the data are examined, it is seen that marital status does not make a significant difference in terms of teachers' scores on distance education ($p > 0.05$).

Table 6. T-test according to education model preference

	Education model choice	N	X	Sd	t	df	p	Cohen d
Teachers' views on distance education	Hybrid	136	3.86	0.47	3.40	207	0.00	0.49
	Distance	73	3.63	0.46				
	Learning							

The teachers' views on distance education were analyzed with the t-test according to the education model preference and the findings obtained were presented in Table 6. When the data are analyzed, it is observed that the educational model chosen results in a significant difference ($p < 0.05$) in terms of teachers' distance education scores.

The findings revealed that the scores of those who prefer hybrid education regarding their views on distance education are higher than those who prefer distance education. This indicates that teachers who prefer hybrid education have more negative views than teachers who prefer distance education. Cohen d value calculated for the variables that have a significant difference on the obtained data is 0.49, and in this case, the difference has a moderate size.

Table 7. Anova regarding seniority

	Sum of Squares	df	Mean Square	F	p	Tukey-b
Between Groups	2.478	4	.620	2.697	.032	-
Within Groups	46.867	204	.230			
Total	49.345	208				

A significant difference was found in the seniority variable. When no significant difference was found in the results of the Tukey-b and Bonferroni tests, which were used to determine the source of the significant difference, the interpretation was made over the mean scores of the groups. The average score of teachers with 6-10 years of seniority is higher than the average score of teachers with 1-5 years of seniority. This result indicates that teachers with 6-10 years of seniority have more negative views on distance education than teachers with 1-5 years of seniority.

Table 8. Age-Related Anova

	Sum of Squares	df	Mean Square	F	p	Tukey-b
Between Groups	2.597	4	.649	2.833	.026	-
Within Groups	46.748	204	.229			
Total	49.345	208				

A significant difference was found in the age variable. When no significant difference was found in the results of the Tukey b test and the Bonferroni test, which were performed to understand the source of the significant difference, the mean scores of the groups were interpreted. The mean score of teachers aged 30-39 years is higher than that of teachers aged 20-29 years. This result shows that teachers in the age group of 30-39 years have a more negative attitude towards distance education than teachers in the age group of 20-29 years.

Table 9. Anova regarding the preference of conducting distance education

	Sum of Squares	df	Mean Square	F	p
Between Groups	,558	2	,279	1,179	,310
Within Groups	48,787	206	,237		
Total	49,345	208			

There was no significant difference in the variable of preference for distance education delivery. This result implies that teachers' views on distance education do not change according to their preferences for distance education delivery.

3.4. Teachers' opinions about the positive and negative sides of distance education

As a result of the content analysis made with the MAXQDA program, the answers to the negative and positive aspects of distance education were divided into codes according to the repeated answers. Teachers' views on the positive and negative aspects of distance education are respectively given in Tables 10 and 11. Next to each code, there is the frequency value of how many teachers have a common opinion.

Table 10. Teachers' opinions on the positive sides of distance education

Code	Frequency	Code	Frequency
Time saving	43	Participate in the lesson by making preparations	1
Increasing technological knowledge	24	Ensuring continuity in education	11
Flexibility in space	18	Reduction in peer bullying	2
Fast progress of the curriculum	2	Increase in students' self-management skills	8
More involvement of parents in the educational process	2	Ease of access to documents	2
Increasing teacher-parent cooperation	4	Course repetition opportunity	1
Increased sense of responsibility in the student	8	Better monitoring of the student's personal needs	2
Ease of classroom management	3	Ensuring the proper use of technological tools	2
Cost reduction	3	comfortable lesson environment	4
Parent's ability to closely observe the learning process	4	Increase in planned work	2
Parents getting to know the teaching profession better	4	less expense	1
Spending more time with family	1	The development of self-learning	13
Disease prevention	11	Ease of tracking homework	1

Increase in self-confidence	3	Ability to use interesting methods and techniques	10
More enjoyable lessons	1	Developing friendships	1

Table 11. Teachers' opinions on negative sides of distance education

Code	Frequency	Code	Frequency
Inequality of opportunity	38	Ignoring the rules	3
Social-emotional problems	30	Disruption in parent-teacher relationship	1
Creating a distraction	21	Students' reluctance towards the lesson	1
Creating health problems	18	unproductive lessons	1
virtual addiction	16	Student loneliness	1
Failure to hold applied courses	9	Decreased awareness of responsibility in students	1
lack of eye contact	9	Lack of peer learning	2
being tiring	4	Lack of values education	1
Lack of interaction with the student	12	non-permanent learning	1
Difficulty using notebook	5	Not suitable for all grade levels	1
Declining success in education	12	Negative impact of teachers on family life	1
Difficulty controlling homework	8	Decreased teamwork	1
Increase in family problems	1	Deterioration in students' reading habits	1
Excess of daily lesson hours	3	Students are interested in different things during the lesson	4
Increase in unwanted behaviors	1	Not applicable for all courses	1
Parents' intervention in the lesson	2	Being vulnerable to cyber attacks	1
Implementation of learning by doing	11	Problems in communication	8
lack of material	3	Increasing absenteeism	6
Inadequate methods and techniques in lectures	1	Difficulty of classroom management	6
Measurement and evaluation problem	12	Inability to observe student behavior	9
technical issues	13	learning disability in student	4

Students develop negative attitudes towards lessons	1	Decreased student and teacher motivation	11
Inability to concretize topics	4	Corruption of student writings	1

The most frequently repeated codes when asked what the positive aspects of distance education are, time-saving (43), increase in technological knowledge (24), or spatial flexibility (18), respectively. The most frequently repeated codes when asked what the negative aspects of distance education are inequality of opportunity (38), social-emotional problems (30), and distraction (21), respectively. According to this finding, it is seen that teachers emphasize more on the negative aspects in their views on distance education.

3.5. *Word clouds on positive and negative sides of distance education*

After the text was coded, word clouds were shown to reveal the most frequently repeated concept in the answers. Word clouds were prepared with the MAXQDA program. In the Figure 2, there is a word cloud regarding the positive aspects of distance education.



Figure 2. Generations and phases of distance education in Turkey

The most repeated words on positive aspects are time saving (n=43), provides (n=20) respectively. These words show parallelism with the code "time saving," which is the most repeated code concerning the positive aspects of distance education. The word cloud containing the most repeated concepts in teacher answers regarding the negative aspects of distance education is given in Figure 3 below.

"The family can see the student's situation better, realize and support their deficiencies, and understand their emotional needs better..." (Ö81)

"We can easily include learning materials or our guests in distance education that we cannot bring to our classroom under normal conditions." (Ö60)

"You can take the class from wherever you are. It provides more problem-solving opportunities. It eliminates the problem of place and time. Allows individual work." (Ö27)

"Distance education has positively affected behaviors such as responsibility awareness, good use of time and patience in terms of students." (Ö41)

"During the lesson, we can access different videos and content immediately. We can have a rich content in the lessons. However, this is difficult because there is an access barrier to the internet in schools. In addition, it supports children to use technological devices more easily and to learn how to access the information they want."(Ö6)

"Self-learning and research skills of both students and teachers were improved..."(Ö9)

"It is an advantage to be able to download the material I want over the Internet and to deliver it to the students who attend the class without wasting time, such as printing and photocopying."(Ö112)

"In face-to-face education, introverted students are able to express themselves more easily, participate more actively in lessons, as they participate in the lesson in a home environment where they feel more comfortable and are not exposed to peer pressure, and more intensive use of digital platforms that attract the attention of students."(Ö171)

Opinions of some teachers about the negative sides of distance education:

"Connection problems and lack of internet. Difficulty communicating with children. I think that the child's social and emotional development is negatively affected."(T120)

"Teachers' inability to communicate with students and students with each other, insufficient eye contact and too many factors that can cause distraction in the home environment are the negative aspects of distance education." (T4)

"Applied lesson is not possible. Students' learning levels cannot be accurately measured. Socially, children are lacking. Homework control is difficult. Above all, the use of notebooks and their writing can be completely spoiled."(T24)

"It's exhausting. We had difficulties with motivation, learning, and reinforcement."(T184)

"Student with comfortable family structure missed first lessons. They were late to class. They dropped out in the middle of the lesson."(T22)

"Inequality of opportunity was created. Students who do not have internet and tablet or computer were far behind" (Ö3)

"The inadequacy of the internet infrastructure caused sound problems and disconnections in many lessons, which affected student motivation..."(Ö101)

“A maximum of 5 of my 19 students were able to participate. There was an incredible inequality of opportunity in the countryside.” (Ö76)

“In particular, the negative features of distance education are that the social needs of children cannot be met, they remain inactive, the student may be interested in other things during the lesson, the attention can be distracted more quickly, the homework control and the difficulties in examining the deficiencies.” (Ö81)

“Lessons suitable for individual differences cannot be taught, applied subjects are unsuccessful, learning remains abstract because there is no use of materials..” (Ö95)

“There is no student interaction. Children who learn by touch remain passive. The teacher's momentary behavior spreads widely. Different people watching the lecture can make different comments. Parents can find little time allocated to their student.” (Ö7)

“Most importantly, it shortens the attention span in children. In particular, the study habits of first-year students are affecting and support is needed in creating a classroom atmosphere.” (Ö13)

“It is difficult to communicate with this method, especially with quiet, introverted children. Some lessons are learned by doing, living, touching and become permanent. This is very difficult in distance education. Being in front of a computer or tablet for a long time is harmful for children's health. Children who do not have a developed sense of responsibility can drop out of class with all kinds of excuses. It is almost impossible to check his writings and correct his mistakes instantly...”(Ö14)

“Students may have problems with the internet, they cannot have a lesson order like in school. The fact that children attend classes 5-10 minutes late causes breaks in the understanding of the subject. It also causes children to be deficient in sensory understanding. Unfortunately, there is no eye-to-eye communication with his teacher. Due to the long stay on the computer screen and the intensity of the lesson, children's reluctance towards lessons occurs. It is difficult to check homework and measure the intelligibility of the topics covered.” (Ö31)

4. Results, Discussion and Suggestions

The current research aimed to examine the views of teachers, who are one of the most important stakeholders of distance education, in order to have a conscious and systematic structuring in conducting distance education activities in Turkey during the Covid-19 pandemic period. For this reason, both quantitative and qualitative findings were evaluated together in the study.

According to the quantitative results of the study, when the percentages of the items related to teachers' readiness for distance education were examined, it was found that the item that more than half of the teachers agreed with the most was "I consider myself equipped and competent in distance education. "However, it was found that teachers'

views on this item were at the "partially" level. In addition, it has been understood that the majority of the teachers did not receive courses or in-service training for distance education from the institution they worked before the start of distance education and partially used web 2.0 tools in the teaching process before the start of distance education. Based on this finding, it is seen that the readiness level of teachers was low and they became equipped with their own efforts in the process. In Alper's (2020) study, teachers adapted to the distance education process and easily adopted technology. In other words, the teachers stated that they successfully carried out the distance education process. In their study, Ünal and Bulunuz (2020) stated that although teachers initially experienced technical problems arising from the system, they later stated that these problems were partially eliminated. It can be said that the reason for this situation is related to the fact that teachers try to facilitate the learning process with their own efforts. Çok (2021), on the other hand, stated that the items seen as very high barriers by teachers. Therefore, based on the finding that teachers' readiness levels are partially, it can be said that it is important for teachers to receive more training on distance education practices and to feel that they are not alone in this process by establishing systems that support their efforts.

When the views of teachers on distance education, which is another quantitative finding of the research, are examined, it is seen that the majority of teachers have negative opinions. According to the findings, the teachers respectively stated that; Being in front of the screen for a long time distracts students, in the distance education process, the fact that students connect to the lesson without turning on their cameras negatively affects the education-teaching process, in distance education, the daily course duration should be less than face-to-face education, distance education is insufficient in lessons with more applied content, measurement and evaluation methods should be changed, in the distance education process, the attention of the students is distracted in a shorter time compared to face-to-face education, It is difficult to appeal to all senses in distance education, the motivation of students is lower than in face-to-face education, the lessons are more tiring than face-to-face education, the inability to communicate with students face-to-face affects the education process negatively. It is more difficult than face-to-face education, distance education courses require more preliminary preparation than face-to-face education, students have problems in connecting to classes due to technical problems in distance education, and students cannot interact with each other during distance education, that they had difficulty in communicating with them. In some studies (Ateş & Altun, 2008; Çelen, Çelik & Seferoğlu, 2013; Nasser & Abouchedid, 2010) that overlap with the findings of this research, it has been observed that teachers' attitudes towards distance education are mostly low or moderate.. The research of Bakioğlu and Çevik (2020) supports this finding. According to the results of the research, it was seen that the teachers had problems in internet connection, communicating with their students, and the low participation rate of their students in the lessons, as well as some concerns.

Among these concerns can be assumed that; the changes in the materials they use in the course, the inability to complete the curriculum and laboratory/workshop activities. Unlike these researches, according to the research of Kocayiğit and Uşun (2020), teachers have a positive attitude towards distance education. Çiçek, Tanhan and Tanrıverdi (2020), Ülkü (2018) and Yumbul (2021) also found in their studies that teachers' attitudes towards distance education are positive above the average. Besides that, It was seen that the teacher mostly agreed on the items, "Being in front of a screen for a long time in distance education distracts students." and "In the distance education process, the fact that students connect to the lesson without turning on their cameras negatively affects the education-teaching process."; The items they least agreed with are "Courses carried out on Eba TV support the learning process of students." and "The methods and techniques used in distance education are remarkable for students.". According to Bayburtlu's (2020) study, teachers stated that some students may have screen addiction and that their participation in classes is not at the desired level. In addition, they stated that textbooks should be interactive with the EBA platform and that this platform should be strengthened and its infrastructure should be established more systematically. Demir and Özdaş (2020) also stated that teachers encounter problems in the EBA platform and that the deficiencies in the infrastructure should be eliminated. On the contrary, in the study conducted by Menchaca and Bekele (2008), it was determined that technological tools provide more opportunities for participation in the course and interaction between students, and accordingly, both students' and teachers' attitudes towards distance education are at a positive level.

In examining the quantitative results, teachers' opinions were also analyzed in terms of personal variables. According to this analysis, teachers' views on distance education did not differ significantly by marital status and distance education delivery method. Nevertheless, there were significant differences in gender, seniority, age, and preference for an educational model. Kurnaz, Kaynar, Barışık, and Doğrukök (2020) found that there were no significant differences in some variables such as gender, seniority, and the device they connected to for distance education; On the other hand, Ülkü (2018) stated in his research that there were significant differences in terms of gender, seniority and branch variables. According to the findings obtained from the gender variable, the scores of male teachers regarding distance education are higher than the scores of female teachers. This shows that male teachers have more negative views than female teachers. Özen and Baran (2020) also reached a result in favor of female teachers in attitudes towards distance education. On the other hand, unlike the findings of this study, Kurtdede, Erbasan, and Kolsuz (2016) stated in their research that male teachers use EBA more intensively. As the reason for this, they showed that men are more prone to technology than women. In addition, in Yumbul's (2021) research, a positive result was obtained in the attitudes of male teachers towards distance education. According to the results obtained from the seniority variable, the average score of teachers with 6-10 years

of seniority is higher than the average score of teachers with 1-5 years of seniority. This result shows that teachers with a seniority of 6-10 years have more negative views on distance education than teachers with a seniority of 1-5 years. According to the results obtained from the age variable, similar to seniority, the scores of teachers in the 30-39 age range regarding their thoughts on distance education are higher than the scores of the teachers in the 20-29 age range. This shows that teachers in the 30-39 age range have more negative views than teachers in the 20-29 age range. In other words, as the age of teachers increases, their views on distance education applications become negative. It can be said that the reason for this may be related to the decrease in the tendency of the teachers who are older and whose professional seniority has increased compared to the relatively younger teachers. In other words, we can list the reasons why younger teachers have more positive attitudes towards distance education as these teachers know technological devices better, use them effectively and actively in every aspect of their lives, and meet these technologies at a younger age. There are some studies in the literature showing that there is a negative change in the thoughts of teachers about distance education with the increase in their age and seniority, their interest in technology and their desire to use these technologies decrease (Ağır, Gür ve Okçu, 2008; Birişçi, Metin ve Demiryürek, 2010; Eroldoğan, 2007; Eyuboğlu ve Yılmaz, 2018; Horzum, 2010; Özçelik ve Kurt, 2007). On the other hand, unlike the results of our current study, Metin, Emlik, Gürlek, and Demirbaş (2021) stated that teachers between the ages of 41-45 experienced less problems in distance education compared to teachers in the other age group. According to the researchers, the reason for this is the in-service training they received with the establishment of EBA in 2012. According to the results obtained from the variable of distance education model preference, the scores of those who prefer hybrid education are higher than the scores of those who prefer distance education. This shows that teachers who prefer hybrid education have more negative views than teachers who prefer distance education. It can be said that the reason for this is that teachers do not want to carry out their education-teaching processes only with distance education, but they need to make plans together with face-to-face education. According to Balaman and Hanbay Tiryaki (2021), teachers do not see distance education as effective as face-to-face education. Researchers stated that after the deficiencies identified about distance education for the post-pandemic period are completed and certain requirements are fulfilled, distance education and face-to-face education can be blended. Thus, they explained that the advantages of both distance education and face-to-face education can be benefited. However, in Yılmaz's (2020) research, the majority of students found distance education inefficient during the pandemic process and 90.3% of them stated that the education should be continued face-to-face when the process is over. In the study conducted by Koca (2021), the idea that teachers find face-to-face education more effective than distance education has been emerged.

According to the results of the qualitative research, when examining teachers' opinions, the codes with the highest number of opinions in the category of positive aspects of distance education are time-saving, increase in technological knowledge, and spatial flexibility. In addition, word cloud analysis was also used in the research. The most repeated words in terms of their positive aspects are respectively the words "time saving, provides." These words show parallelism with the code "time saving," which is the most repeated code concerning the positive aspects of distance education. According to the findings, teachers stated that; they have the opportunity to connect to the course from different places, they have the chance to spend more time with the family, it encourages the use of web 2.0 tools and technology, they can include learning materials or guests in distance education more easily, it provides the opportunity to work individually by eliminating the problem of space and time, both students' and students' self-learning and research skills have been improved, and that introverted students can express themselves much more easily because they attend the lesson in a home environment where they feel more comfortable and are not exposed to peer pressure. As a matter of fact, Deniz (2021) also determined that there is a positive relationship between teachers' perceptions of technological competence and their attitudes towards distance education. In addition, distance education applications allow students and teachers to enter individual, independent and cooperative working environments (İşman, 2008). Gören, Gök, Yalçın, Göregen and Çalışkan (2020) have reached research findings reflecting the cooperative working environment in their studies. Accordingly, it has been determined that the teachers teach their lessons regularly, their administrators follow the lessons systematically and give feedback about the lessons. In the study of Özdoğan and Berkant (2020), the advantages of distance education; It has been stated that being independent of time and place, the importance of technology in education and developing technological skills. Bakioğlu and Çevik (2020) also determined in their study that distance education greatly affects teachers' ability to use educational technologies and their professional development. The studies of Ağır (2007) and Yumbul (2021) support this finding. Studies have shown that teachers' attitudes towards distance education are positive. Therefore, it can be considered natural for teachers to emphasize the positive aspects of distance education methods at this point.

In this study, although it is seen that there are positive aspects in teachers' views on distance education, it has been determined that negative opinions are quite high and negative opinions are dominant in general. In the category of negative aspects of distance education, it was found that the most emphasized codes were "inequality of opportunity," "social-emotional problems," and "distraction." In addition, word cloud analysis was also used in the research. According to this, the most repeated words concerning the negative aspects are "inequality of opportunity, student, social, difficult," respectively. These words show parallelism with the codes "inequality of opportunity and social-emotional problems," which are the most repeated codes related to the negative aspects of distance

education. Özdoğan and Berkant's (2020) research supports this finding. According to the results of the research, the disadvantageous points of distance education include creating inequality of opportunity in education, loss of motivation, inadequacy in communication, socialization and interaction. Yürek (2021) also found in his research that students will experience some limitations in the field of social-emotional development. As a matter of fact, Bakioğlu and Çevik (2020) also found that teachers were worried about the lack of knowledge that might occur in students, that they felt inadequate in this process, but that they had the opportunity to improve themselves. However, Bayburtlu (2020) found that some of the students could not attend live classes due to the lack of technological devices in their research. Similarly, Ünal and Buluz (2020) emphasized in their research that the most important problem for teachers was that students who did not have the internet, computer or smart phone could not benefit from the distance education process. In the same study, teachers stated that "supplementary education" should be an alternative to face-to-face education in the coming years. As a matter of fact, Arı and Kanat (2020) revealed in their study that despite all the negativities that occurred during the pandemic process, there were advances in online education, but it could not replace face-to-face education in any way. In other words, it is seen that teachers do not ignore the negative situations regarding distance education. Among the situations that may have an impact on this situation; The fact that teachers were at the computer intensively during the pandemic process, the state of uncertainty has negative effects on human psychology, and all teachers were caught unprepared for distance education studies that they never knew or knew little about. As a matter of fact, according to Kurnaz, Kaynar, Barışık, and Doğrukök (2020), in order to increase the quality of distance education, it is necessary that; increasing the use of web 2.0 tools, conducting in-service trainings on issues such as the structuring of student-teacher relations and studies on the competencies of teachers, reducing the technical problems of the stakeholders by arranging the internet infrastructure, and to enrich the EBA education portal in terms of content and quality.

In the light of all this information, it can be said that in the 21st century world, people's need for learning increases considerably in the face of rapidly updated, changing and developing information. Our need for information is met very quickly by means of technological tools such as computer, internet, mass media, telephone, tablet etc. developed as a result of technological developments in the 21st century. Here, the concept of distance education, which is a modern and innovative approach among the methods of accessing information, is put to work at this point. When it comes to today, due to the conditions created by the Covid-19 pandemic both in the world and in our country, the model of distance education has become a mandatory part of our educational and training activities. The need to define distance education has arisen from the idea of providing equal opportunities to all, meeting the educational needs of students who, for various reasons, are unable to continue their education, and the desire to supplement the

disadvantages of face-to-face education. So much so that Tartavulea, Albu, Albu, Dieaconescu, and Petre (2020) stated that there is an opinion that distance education will be used even in the time of face-to-face teaching. However, some arrangements must inevitably be made to make the process of distance education more qualified and easier for all. Although studies have been conducted on the legal regulations, one of the problems observed in this process is that there are some contradictions between the distance education practices required in actual practice and those defined in the legal regulation (Bozkurt, 2017).

Although the Ministry of National Education in Turkey has launched the EBA training portal since the beginning of the pandemic, there is still a need to address the shortcomings in the system as the whole system cannot be limited to it. This is because Demir and Özdaş (2020) evaluated the distance learning system in three different ways as satisfactory, unsuitable, and limited. It can be said that the reason for this is thought that evaluating distance education applications completely positively or thoroughly negatively will not contribute much to the process. This is because distance education, which has assumed a critical function in our lives with the pandemic process, is in an open-ended structure for development. Considering the opinions of all stakeholders in increasing the legal basis and applicability of this structure can be counted among the elements that will increase the quality. According to Bozkurt (2017), considering the developments in Turkey, it is predicted that there will be enrichment in the content and processes of learning and the diversity in applications will increase with the integration of new technologies into distance education processes. Another prediction is that more flexible and more accessible learning environments will be structured by strengthening lifelong learning processes. Therefore, based on the results of this research, it is important to consider both the positive and negative aspects of teachers' thoughts about the distance education process to improve the process. Considering that the common point that teachers often emphasize in both quantitative and qualitative research methods is distraction, the idea of taking steps in this direction arises. This process needs to be improved by considering the most effective methods for everyone involved. Otherwise, this situation can lead to overlooking the positive aspects of distance education.

Policymakers and decision-makers are expected to make plans in line with common sense and carefully consider each factor that will support equality of opportunity and help qualify education. In addition, one of the limitations of this research, the fact that it only includes teachers' opinions, creates the need for more comprehensive research that includes other stakeholders in distance education. In this sense, it is recommended that students, administrators, parents, academics, and other stakeholders who build and analyze the system should be consulted and integrated into the distance education processes conducted in Turkey to ensure maximum benefits from educational activities.

References

- Adıgüzel, A. (2020). Salgın sürecinde uzaktan eğitim ve öğrenci başarısını değerlendirmeye ilişkin öğretmen görüşleri. *Milli Eğitim Dergisi*, 49(1), 253-271.
- Ağır, F., Gür, H. ve Okçu, A. (2008). Özel okullarda ve devlet okullarında çalışan ilköğretim öğretmenlerinin uzaktan eğitime karşı tutumlarını belirlenmesi. Retrieved from <http://ietc2008.home.anadolu.edu.tr/ietc2008/65.doc>.
- Almanthari, A., Maulina, S. ve Bruce, S. (2020). Secondary school mathematics teachers' views on e-learning implementation barriers during the Covid- 19 pandemic The Case of Indonesia. *Eurasia Journal of Mathematics, Science and Technology Education*, 16(7),1860.
- Alper, A. A. (2020). Pandemi sürecinde K-12 düzeyinde uzaktan eğitim: Durum çalışması. *Milli Eğitim Dergisi*, 49(1), 45-67.
- Arı, A. G. ve Kanat, M. H.(2020). Covid-19 (koronavirüs) üzerine öğretmen adaylarının görüşleri. *Yüzüncü Yıl Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, (Salgın Hastalıklar Özel Sayısı), 459-492.
- Ateş, A. & Altun, E. (2008). Bilgisayar öğretmeni adaylarının uzaktan eğitime yönelik tutumlarının çeşitli değişkenler açısından incelenmesi. *Gazi Üniversitesi Eğitim Fakültesi Dergisi*, 28(3), 125-145.
- Bakioğlu, B. & Çevik, M. (2020). Covid-19 pandemisi sürecinde fen bilimleri öğretmenlerinin uzaktan eğitime ilişkin görüşleri. *Electronic Turkish Studies*, 15(4).
- Balaman, F. & Hanbay Tiryaki, S. (2021). Corona virüs (Covid-19) nedeniyle mecburi yürütülen uzaktan eğitim hakkında öğretmen görüşleri. *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, 10(1), 52-84. doi: 10.15869/itobiad.769798.
- Baltacı, A. (2017). Nitel Veri Analizinde Miles-Huberman Modeli. *Ahi Evran Üniversitesi Sosyal Bilimler Enstitüsü Dergisi (AEÜSBED)*, 3(1), 1-15.
- Bayburtlu, Y. S. (2020). Covid-19 pandemi dönemi uzaktan eğitim sürecinde öğretmen görüşlerine göre Türkçe eğitimi. *Electronic Turkish Studies*, 15(4).
- Birişçi, S., Metin, M.& Demiryürek G. (2011). İlköğretim öğretmenlerinin bilgisayar ve internet kullanmaya yönelik tutumlarının incelenmesi: Artvin ili örneği, *Eğitim Teknolojileri Araştırmaları Dergisi*, 2(4), 1-18.
- Bozkurt, A. (2017). Türkiye’de uzaktan eğitimin dünü, bugünü ve yarını. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi*, 3(2), 85-124.
- Börnert-Ringleb, M., Casale, G. & Hillenbrand, C. (2021). What predicts teachers' use of digital learning in Germany? Examining the obstacles and conditions of digital learning in special education. *European Journal of Special Needs Education*, 1-18.
- Çelen, F.K., Çelik, A. & Seferoğlu, S.S. (2013). Analysis of teachers' approaches to distance education. *Procedia-Social and Behavioral Sciences*, 8(3), 388-392.
- Çiçek, İ., Tanhan, A. & Tanrıverdi, S. (2020). COVID-19 ve eğitim. *Milli Eğitim Dergisi*, 49(1), 1091-1104.
- Çiftçi, B. & Aydın, A. (2020). Eğitim bilişim ağı (EBA) platformu hakkında fen bilimleri öğretmenlerinin görüşleri. *Türkiye Kimya Dernegi Dergisi Kısım C: Kimya Eğitimi*, 5(2), 111-130.
- Cohen, M. A. (1988). Some new evidence on the seriousness of crime. *Criminology*, 26(2), 343-353.
- Creswell, J. W. (2013). *Nitel, nicel ve karma yöntem yaklaşımları araştırma deseni*. (Çev. Ed. Demir, S. B.). Ankara: Eğiten Kitap.

- Çok, C. (2021). *Teachers' perception of self-efficacy regarding distance education and obstacles which they encounter in distance education during pandemic process*. Yayınlanmamış Yüksek Lisans Tezi, Yüzüncü Yıl Üniversitesi Eğitim Bilimleri Enstitüsü, Van.
- Demir, E. (2014). Uzaktan eğitime genel bir bakış. *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi*, 39, 203-211.
- Demir, S. & Kale, M. (2020). Öğretmen görüşlerine göre Covid-19 küresel salgını döneminde gerçekleştirilen uzaktan eğitim sürecinin değerlendirilmesi. *Turkish Studies*, 15(8), 3445-3470. doi: <https://dx.doi.org/10.7827/TurkishStudies.44492>.
- Demir, F. & Özdaş, F. (2020). Covid-19 sürecindeki uzaktan eğitime ilişkin öğretmen görüşlerinin incelenmesi. *Milli Eğitim Dergisi*, 49(1), 273-292.
- Durak, G., Çankaya, S. & İzmirli, S. (2020). Examining the Turkish universities' distance education systems during the COVID-19 pandemic. *Necatibey Faculty of Education Electronic Journal of Science and Mathematics Education*, 14(1), 787-809.
- Düzgün, S. & Sulak, S. E. (2020). Öğretmen Adaylarının Covid-19 Pandemisi Sürecinde Uzaktan Eğitim Uygulamalarına İlişkin Görüşleri. *Milli Eğitim Dergisi*, 49(1), 619-633.
- Eroldoğan, A. Y. (2007). *İlköğretim II. Kademe Okullarındaki Branş Öğretmenlerinin Bazı Değişkenlere Göre Öğretim Teknolojilerini Kullanma Düzeylerinin İncelenmesi*. Yayınlanmamış Yüksek Lisans Tezi, Çukurova Üniversitesi Sosyal Bilimler Enstitüsü, Eğitim Bilimleri, Adana.
- Eyuboğlu, F. A. B. & Yılmaz, F. G. K. (2018). Öğretmenlerin yaşam boyu öğrenme tutumları, dijital yerli olma durumları ve teknoloji kabulü arasındaki ilişkinin birbirleri ile ve çeşitli değişkenler açısından incelenmesi. *Uluslararası Eğitim Bilim ve Teknoloji Dergisi*, 4(1), 1-17.
- Gayvoronskiy, V.G. (2020). The teachers' opinion on efficiency of distance education. *Bulletin Of Nizhnevartovsk State University*, (3), 11-17. doi: 10.36906/2311-4444/20-3/02.
- Gören, S. Ç., Gök, F. S., Yalçın, M. T., Göregen, F. & Çalışkan, M. (2020). Küresel salgın sürecinde uzaktan eğitimin değerlendirilmesi: Ankara örneği. *Milli Eğitim Dergisi*, 49(1), 69-94.
- Hebecci, M. T., Bertiz, Y. & Alan, S. (2020). Investigation of views of students and teachers on distance education practices during the Coronavirus (COVID-19) Pandemic. *International Journal of Technology in Education and Science (IJTES)*, 4(4), 267-282.
- Horzum, M. B. (2010). Öğretmenlerin Web 2.0 araçlarından haberdarlığı, kullanım sıklıkları ve amaçlarının çeşitli değişkenler açısından incelenmesi. *Uluslararası İnsan Bilimleri Dergisi*, 7(1), 604-634.
- Karakuş, N., Ucuzsatar, N., Karacaoğlu, M. Ö., Esendemir, N. & Bayraktar, D. (2020). Türkçe öğretmeni adaylarının uzaktan eğitime yönelik görüşleri. *Rumeli Dil ve Edebiyat Araştırmaları Dergisi*, (19), 220-241. DOI: 10.29000/rumelide.752297.
- Karatepe, F., Küçükgençay, N. & Peker, B. (2020). Öğretmen adayları senkron uzaktan eğitime nasıl bakıyor? Bir anket çalışması. *Journal of Social and Humanities Sciences Research*, 7(53), 1262-1274.
- Kışla, T. (2016). Uzaktan eğitime yönelik tutum ölçeği geliştirme çalışması. *Ege Eğitim Dergisi*, 17(1), 258-271.
- Koca, M. F. (2021). *Pandemi Sürecinde Ortaokullarda Görev Yapan Öğretmenlerin Uzaktan Eğitime Karşı Tutumları: Osmaniye İli Örneği*. Yüksek Lisans Tezi, Osmaniye Korkut Ata Üniversitesi Sosyal Bilimler Enstitüsü, Osmaniye.

- Kocayığit, A. & Uşun, S. (2020). Milli Eğitim Bakanlığına bağlı okullarda görev yapan öğretmenlerin uzaktan eğitime yönelik tutumları (Burdur İli Örneği). *Avrasya Uluslararası Araştırmalar Dergisi*, 8(23), 285-299.
- Kurnaz, A., Kaynar, H., Barışık, C. Ş. & Doğrukök, B. (2020). Öğretmenlerin Uzaktan Eğitime İlişkin Görüşleri. *Milli Eğitim Dergisi*, 49(1), 293-322. <https://doi.org/10.37669/milliegitim.787959>
- Kurnaz, E. & Serçemeli, M. (2020). Covid-19 Pandemi döneminde akademisyenlerin uzaktan eğitim ve uzaktan muhasebe eğitimine yönelik bakış açıları üzerine bir araştırma. *Uluslararası Sosyal Bilimler Akademi Dergisi*, 3, 262-288.
- Kurtdede Fidan, N., Erbasan, Ö. & Kolsuz, S. (2016). Sınıf öğretmenlerinin eğitim bilişim ağı'ndan (Eba) yararlanmaya ilişkin görüşleri. *Uluslararası Sosyal Araştırmalar Dergisi*, 9(45), 626-637.
- Kuset, Ş., Özgem, K., Şaşmacıoğlu, E. & Güldal Kan, Ş. (2021). Evaluation of the impact of distance education on children in preschool period: Teachers' opinions. *Near East University Journal of Education Faculty (NEUJE)*, 4(1), 78-87. doi: <https://doi.org/10.32955/neuje.v4i1.287>.
- Lloyd, S. A., Byrne, M. M. & McCoy, T. S. (2012). Faculty-perceived barriers of online education. *Journal of Online Learning and Teaching*, 8(1).
- Menchaca, M. P., & Bekele, T. A. (2008). Learner and instructor identified success factors in distance education. *Distance education*, 29(3), 231-252.
- Metin, M., Emlik, H., Gürlek, E. H. & Demirbaş, S. (2021). Uzaktan eğitime yönelik öğretmen görüşlerinin farklı değişkenler açısından incelenmesi. *Studies in Educational Research and Development*, 5(1), 19-47.
- Milli Eğitim Bakanlığı (MEB), (2020). 16-20 Nisan 2020 Tarihleri Arasında İkinci Ara Tatil, 23-27 Mart 2020 Tarihleri Arasında ise Uzaktan Eğitim Yöntemi ile Eğitim ve Öğretime Devam Edilmesi ve Yönetici ve Öğretmenlere Genel-İdari İzinli Olması ile İlgili Resmi Yazı. Retrieved from <https://www.maarifmevzuati.com/2020/03/>.
- Nasser, R. & Abouhedid, K. (2010). Attitudes and concerns towards distance education: the case of lebanon. *Online Journal of Distance Learning Administration*, 3 (4), 1- 12.
- Newby, T.J., Stepich, D.A., Lehman, J.D. & Russell, J.D. (2006). Educational Technology for Teaching and Learning. Upper Saddle River, New Jersey: Pearson Merrill Prentice Hall.
- Özcan, E. K. E. N., Tosun, N. & Eken, D. T. (2020). Covid-19 Salgını ile Acil ve Zorunlu Uzaktan Eğitime Geçiş: Genel Bir Değerlendirme. *Milli Eğitim Dergisi*, 49(1), 113-128.
- Özçelik, H. & Kurt, A. A. (2007). İlköğretim Öğretmenlerinin Bilgisayar Öz yeterlilikleri: Balıkesir İli Örneği. *İlköğretim Online*, 6(3), 441-451.
- Özdoğan, A. Ç. & Berkant, H. G. (2020). Covid-19 pandemi dönemindeki uzaktan eğitime ilişkin paydaş görüşlerinin incelenmesi. *Milli Eğitim Dergisi*, 49(1), 13-43.
- Özen, E. & Baran, H. (2019). Uzaktan eğitimde yönelimler: 2016-2018 yılları arasında Proquest veri tabanında yayımlanan tezlerin içerik analizi . *Açıköğretim Uygulamaları ve Araştırmaları Dergisi*, 5(3), 28-40.
- Özkul, R., Kırnık, D., Dönük, O., Altunhan, Y. & Altunkaynak, Y. (2020). Uzaktan Eğitim Uygulamalarına İlişkin Öğretmen Görüşleri: Ölçek Çalışması. *Electronic Turkish Studies*, 15(8).
- Rasmitadila, Aliyyah, R.R., Rachmadtullah, R., Samsudin, A., Syaodih, E., Nurtanto, M. & Tambunan, A.R.S. (2020). The perceptions of primary school teachers of online learning during

- the covid-19 pandemic period: A case study in Indonesia. *Journal of Ethnic and Cultural Studies*, 7(2), 90-109. doi: <http://dx.doi.org/10.29333/ejecs/388>.
- Stein, D. S., Wanstreet, C. E. & Calvin, J. (2009). How a novice adult online learner experiences transactional distance. *The Quarterly Review of Distance Education*, 10(3), 305-311. Retrieved from <http://eric.ed.gov/?id=EJ889334>.
- Tabachnick, B. G. & Fidell, L. S. (2013). *Using multivariate statistics* (6th ed.) Boston: Pearson.
- Tartavulea, C. V., Albu, C. N., Albu, N., Dieaconescu, R. I. & Petre, S. (2020). Online teaching practices and the effectiveness of the educational process in the wake of the Covid-19 pandemic. *Amfiteatru Economic*, 22(55), 920-936.
- Tzivinikou, S., Charitaki, G. & Kagkara, D. (2020). Distance Education Attitudes (DEAS) During Covid-19 Crisis: Factor Structure, Reliability and Construct Validity of the Brief DEA Scale in Greek-Speaking SEND Teachers. *Technology, Knowledge Learning*. <https://doi.org/10.1007/s10758-020-09483-1>
- Ülkü, S. (2018). *İlkokullarda Görev Yapan Öğretmenlerin Uzaktan Eğitime Yönelik Tutumları*. Yayınlanmamış Yüksek Lisans Tezi. Abant İzzet Baysal Üniversitesi Eğitim Bilimleri Enstitüsü, Bolu.
- Ünal, M. & Bulunuz, N. (2020). Covid-19 salgını döneminde yürütülen uzaktan eğitim çalışmalarının öğretmenler tarafından değerlendirilmesi ve sonraki sürece ilişkin öneriler. *Milli Eğitim Dergisi*, 49(1), 343-369.
- Yahn, H. İ. (2007). *Öğretim teknolojileri ve materyal geliştirme*. (19.baskı). Ankara: Nobel Yay.
- Yalman Polatlar, D. & Bayram Tuncay, E. (2020). Pandemi sürecinde okul öncesi öğretmenlerinin mesleğe dair görüşlerinin incelenmesi [Öz]. F. Meriçli ve A. Movlyanov (Ed.), *World Children Conference Proceedings Book by Iksad Publishing House*, içinde (s.296-297). Türkiye: Ankara, 23-25 Ekim 2020.
- Yıldız, E. ve Seferoğlu, S. S. (2020). Uzaktan eğitim öğrencilerinin çevrim içi teknolojilere yönelik öz yeterlik algılarının incelenmesi. *Manisa Celal Bayar Üniversitesi Sosyal Bilimler Dergisi*, 18(1), 33-46.
- Yılmaz, N. A. (2020). Yükseköğretim kurumlarında covid-19 pandemisi sürecinde uygulanan uzaktan eğitim durumu hakkında öğrencilerin tutumlarının araştırılması: Fizyoterapi ve rehabilitasyon bölümü örneği. *Necmettin Erbakan Üniversitesi Sağlık Bilimleri Fakültesi Dergisi*, 3(1), 15-20.
- Yılmaz, M. & Üredi, L. (2020). İlkokul öğretmenlerinin eğitimde teknoloji kullanımına ilişkin bilgisayar yeterliliklerinin değerlendirilmesi. *OPUS Uluslararası Toplum Araştırmaları Dergisi*, 16(32), 4723-4742.
- Yumbul, E. (2021). *Liselerde Görev Yapan Öğretmenlerin Uzaktan Eğitime Yönelik Tutumlarının İncelenmesi*. Ondokuz Mayıs Üniversitesi Lisansüstü Eğitim Enstitüsü, Samsun.
- Yürek, E. (2021). *Okul Öncesi Eğitimde Uzaktan Eğitimin Uygulanabilirliğine Yönelik Okul Öncesi Öğretmenlerinin ve Alandaki Akademisyenlerin Görüşlerinin İncelenmesi*. Fatih Sultan Mehmet Vakıf Üniversitesi Lisansüstü Eğitim Enstitüsü, İstanbul.

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