Attitudes and Opinions of Vocational and Technical Anatolian High School Teachers on Distance Education: A Mixed Method Research*

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Abstract

This study aimed to determine the attitude levels of Vocational and Technical Anatolian High School teachers towards distance education and these levels in terms of various variables (gender, education status, or profession). This study, it was aimed to determine whether there was a difference between the status of being a culture teacher and professional seniority. The research is carried out with the explanatory sequential design approach, one of the mixed-method research designs that consist of teachers working in Vocational and Technical Anatolian High Schools in Sakarya in the 2020-2021 academic year. Quantitative data of the study were collected from 244 teachers. They were determined by a purposive sampling method, and qualitative data were collected from 43 teachers and is determined by the convenient sampling method. A sufficient number of samples were selected from the existing sample due to the rapid and easy accessibility of the teachers from whom quantitative data were collected. Quantitative data were obtained with the "Personal Information Form" created by the researchers to determine the demographic characteristics of the teachers, and the Distance Education Attitude Scale, developed by Ağır (2007) to determine distance education attitudes. In acquiring qualitative data, a semi-structured interview form consisting of open-ended questions prepared by the researchers was used. In the first part of the interview form, there are questions about the demographic information of the teachers participating in the research. In the second part, there are seven questions prepared by the researchers to determine the opinions of the teachers about distance education based on the results obtained from the quantitative data and the literature review on distance education. The researchers collected the data through Google Forms, created from the questions in the scale and interview forms. In the analysis of the quantitative data obtained, descriptive statistics, Shapiro-Wilk normality test, t-test, and one-way ANOVA test were used. Qualitative data were analyzed with descriptive analysis methods within the framework of the themes determined by evaluating the advantages and limitations of distance education sub-dimensions. It has been tried to reach the possible reasons underlying the quantitative results with the qualitative data obtained. As a result of the research, it has been determined that teachers disagree with the view that distance education has advantages. They believe that distance education has limitations, and their attitude levels towards distance education are below the medium level. In the study, the reasons for the teachers' attitude levels towards distance education below the medium level were evaluated by evaluating the advantages and limitations of distance education and the sub-dimensions of "student academic success," "efficiency of education," "positive and negative aspects compared to face-to-face education," "difficulties encountered," and "opportunity ."In this study, it has been tried to be revealed with the opinions of teachers within the framework of the themes of "whether it provides equality," "teacher and student motivation," and "recommendations for effective distance education."

Keywords: Distance Education, Vocational and Technical Education, Attitude.

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INTRODUCTION

The Coronavirus disease (COVID-19), which emerged in Wuhan, the People's Republic of China, in December 2019, affected the whole world in a short time. The World Health Organization declared a pandemic disease on March 11, 2020 (World Health Organization, 2020). In many countries, educational institutions have been temporarily closed, and education interrupted to contain the spread of the disease. This situation has revealed the need for different teaching practices to continue education and training activities. In this process, the distance education method has been preferred in many countries at all levels of education.

Distance education is a model in which learning activities are carried out independently of time and place through communication technologies (Moore, 1973), and education processes are structured by using information and communication technologies in an equal opportunity and at the time and environment of their choice, with the awareness of their responsibilities (Bates, 2005). Depending on the innovations in distance education information technologies in places with internet connections, it is seen as a modern education system that provides information sharing and access to resources, increases the quality of education, provides collaborative learning, and requires continuous research (Begimbetova 2015; Yalçınkaya, 2006).

The distance education system makes a significant contribution to the education of large social masses by reaching people of all ages and segments in formal and non-formal education, with the ability to continue education and training activities in almost any environment without being tied to time and place in general terms. The use of distance education is becoming more common day by day. It provides equal opportunities in education and offers various teaching materials according to the capacity and learning speed of the students. With this type of education, the education costs of the students are reduced, and disabled individuals who cannot go to school can receive an education. In addition, distance education makes it possible for working individuals to continue their education and business life. Using computer techniques and rich audio-visual materials in distance education attracts students' attention and, in some cases, prompts students to research. This situation also increases the permanence of the learned knowledge. Taking responsibility for their learning contributes to developing personal control mechanisms, gaining the habit of working and socializing by sharing information among themselves when they need it. Too many students, due to the limited number of teachers and learning environments, the training that cannot be carried out can be done by distance education. In addition, many distance education programs offer the advantage of lifelong learning by allowing adult individuals to participate in education (Altıparmak, 2011; Çağıltay, 2001; Yekta, 2004; Yurdakul, 2005).

In addition to the many advantages of distance education, it is possible to discuss some disadvantages. Close contact between students and teachers, which is one of the positive aspects of face-to-face education, lacks distance education. In addition, the inability to meet the social and psychological needs of the classroom and school environment in distance education creates a feeling of isolation in students. It prevents the development of group working skills. It is known that students who cannot achieve self-motivation and have difficulty carrying the responsibility of learning alone have difficulties in distance education. The course, which can be reaccessed, prevents the student from using the time effectively and quality by causing complacency. Sometimes the student is affected by what is happening around him during the lesson and has concentration problems. Depending on the type of distance education, the inability to establish a teacher-student relationship or the presence of crowded student groups makes teacher-student communication difficult. Due to the students'

differences, teachers need much time during the preparation and planning of the lesson. In addition, incomplete learning of inaccessible students cannot be prevented. In addition, there is a decrease in the students' motivation toward the lesson due to the teacher's inability to use body language in distance education. In addition, it is seen that the efficiency of the practice-oriented workshop and laboratory courses with distance education is low. The high initial system setup cost in distance education using computers or communication technologies, the inability of the trainees to access the technological device for financial reasons, the lack of digital literacy at the desired level, the lack of infrastructure or connection problems slow down education services and make it difficult for students to receive education (Çelik and Şeker, 2008, cited by Aktaş, 2013; Çetiner, 1999; Sığın, 2020).

The coronavirus led to different searches for the continuation of education and the global epidemic caused by this virus. The concept of distance education reached broader segments of society and revealed the opportunity for more people to benefit from distance education. Distance Education (İşman, 2011) is an education model in which teacher and student interaction are carried out using information technologies that eliminates time and space restrictions. It has been put into practice to continue education in Vocational and Technical Anatolian High Schools and at all levels. Vocational and technical education provides students with the knowledge and skills that they can use in the business environment they will enter after graduation through applied courses (Leney, 2002; Ministry of Education, 2005). Vocational and technical education includes formal and non-formal education and apprenticeship education that students who have graduated from primary education attend to develop a profession (Ministry of Education, 2005). Vocational education provides financial value to the country with the planning, development, and practices it carries out by working in cooperation with all occupational segments in the training activities it implements (Ekşioğlu and Taşpınar, 2014). It realizes this value by adding skills and qualifications that people can benefit from in the business environment (Leney, 2002). Vocational and Technical Anatolian High Schools carry out vocational education at the secondary level in Turkey. Vocational Open Education High Schools and Vocational Education Centers operating under the General Directorate of Vocational and Technical Education are institutions that train people compatible with the local and global occupational standards required by the country in many business and occupational fields (Bursa Provincial Directorate of National Education, 2015).

Within the scope of the measures taken to prevent the spread of the coronavirus epidemic, the transition of Vocational and Technical Anatolian High Schools, which give practical face-to-face vocational courses in workshop and laboratory environments, to distance education was carried out with doubts. Whether the intensity of applied workshop and laboratory courses is efficient with distance education, in this process, it is thought that the attitudes of teachers towards distance education are essential in the solution of the education problems brought by the coronavirus in the distance education studies carried out in vocational high schools.

When the literature is examined, it is seen that many studies have been conducted to determine the opinions, satisfaction, and perceptions of undergraduate level instructors and students, especially regarding distance education (Aldemir, 2020; Aras, 2019; Bertiz, 2018; Enfiyeci, 2019; Eygü and Karaman, 2013; Gök, 2011; Gürkan, 2017; Kaya, 2020; Kırmacı and Acar, 2018; Özer, 2011; Sığın, 2020; Uslusoy, 2017; Yavuz, 2016; Yılmaz and Özkan, 2014). No study has been found examining the differences in the attitude levels of Vocational and Technical Anatolian High School teachers towards distance education studies in terms of various variables. It is hoped that determining the attitude levels of Vocational and Technical Anatolian High School teachers towards distance education and whether these levels differ according to various variables will guide policymakers and practitioners in the studies to be carried out by the Ministry of National Education on distance education. Especially in vocational high schools where applied courses are intense, it is essential to determine teachers' attitudes towards distance education and the similarities and differences of these attitudes according to the variables in terms of more efficient studies.

This study has been tried to determine the attitude levels of Vocational and Technical Anatolian High School teachers towards distance education studies and whether these levels differ in

terms of various variables (gender, education status, being a vocational or culture course teacher, and professional seniority). In addition, unlike the studies on distance education carried out with teachers in the literature, in this study, the attitudes of vocational high school teachers where applied courses are intense, and the possible views of teachers that caused their attitudes towards distance education were examined in detail. For this purpose, answers to the following questions were sought in the study:

1. What are teachers' attitudes working in Vocational and Technical Anatolian High Schools towards distance education studies?

2. Does the attitude levels of the teachers working in Vocational and Technical Anatolian High Schools towards distance education studies show a significant difference according to the variables of gender, education level, being a vocational or culture course teacher, and professional seniority?

3. The effect of distance education on the academic achievement of students, its efficiency in terms of education, the difficulties encountered in the lessons taught with distance education, the positive and negative aspects of distance education compared to face-to-face education, whether it provides equality of opportunity, the motivation of students and teachers in distance education studies and the effects of distance education. What are the teachers' views on the activities that can be done to be more effective?

METHOD

Model of the Research

This research was carried out with the explanatory sequential design approach, one of the mixed-method research designs. The mixed research method is a research method in which data is collected and analyzed using quantitative and qualitative approaches, and results are obtained by combining the findings (Tashakkori & Creswell, 2007). In the descriptive, sequential design approach, the researcher first collects the quantitative data and then collects the qualitative data to explain the quantitative data. In this approach, where data are not collected simultaneously, the quantitative findings are explained and interpreted with the qualitative findings (Creswell & Plano Clark, 2015). The reason for choosing the mixed method in this study is to explain the results obtained from the quantitative method with the qualitative method, to provide a detailed understanding of teachers' attitudes towards distance education and their views that cause these attitudes. According to Creswell and Plano Clark (2015), the reason for using mixed methods in research is that using qualitative and quantitative methods together provides a better understanding of the research problem than using these methods separately. In addition, the mixed method increases the reliability of the research by eliminating the deficiencies of the qualitative and quantitative methods and providing strong evidence, allowing the whole picture of the research problem to be seen, and the ease of detection using numerical and verbal values together (Tunalı, 2016). For this reason, it was tried to determine teachers' attitudes towards distance education in the quantitative stage of the research and teachers' views on distance education in the qualitative stage.

Sample/Study Group of the Research

The research consists of teachers working in Vocational and Technical Anatolian High Schools in Sakarya in the 2020-2021 academic year. The quantitative data of the research were collected from 244 teachers who were determined by the purposive sampling method in order to enable in-depth research by selecting situations rich in data and having specific qualifications, meeting certain criteria under the research (Büyüköztürk, 2020). One hundred sixty of the teachers are male, and 84 are female. Of the 189 undergraduate and 55 postgraduate teachers, 143 are vocational course teachers, and 101 are culture course teachers. Culture courses ensure that students have a common general culture at a minimum and address the country's problems. These are the courses that enable

them to grow up as individuals sensitive to their economic, social and cultural development and prepare them for a higher education institution. On the other hand, vocational courses are courses that enable students to gain proficiency in their targeted profession, orient them to related business areas, and/or prepare them for a higher education institution (Ministry of Education, 2013). Forty-five of the teachers in the sample have seniority of 0-5 years, 65 of them have 6-10 years seniority, 55 of them have 11-20 years seniority, and 79 of them have 20 years and above seniority.

In the study, qualitative data were collected from 43 teachers determined by the convenient sampling method. A sufficient number of samples were selected from the existing samples. Since the quantitative data were quickly and easily accessible from the teachers (Patton, 2005). Twenty-three of the teachers are male, and 20 are female. In addition, while 22 of the teachers are vocational course teachers, 21 are culture course teachers. In addition, 5 of the teachers have seniority of 0-5 years, 10 of them 6-10 years, 17 of them 11-20 years, and 11 of them have seniority of 21 years and above. The teachers in the study group where the data were collected were given code numbers such as T1, T2, T3, T4, T5, T6, ...T43.

Data Collection Tools

The study's quantitative data were obtained with the "Personal Information Form" created by the researchers to determine the demographic characteristics of the teachers and the Distance Education Attitude Scale developed by Ağır (2007) to determine distance education attitudes. The scale items consisting of two sub-dimensions and twenty-one items, namely Advantages of Distance Education and Limitations of Distance Education, were scaled in a five-point Likert type (1-Strongly Disagree, 2-Disagree, 3-Undecided, 4-Agree, 5-Strongly Agree). The minimum and maximum points that can be obtained for the scale are 14-70 for the "Advantages of Distance Education" sub-dimension, 7-35 for the "Limitations of Distance Education" sub-dimension, and 21-105 for the whole scale. The high score obtained from the UETT indicates that the attitude towards distance education is high. In contrast, the low score obtained indicates that the attitude towards distance education is low.

The Cronbach Alpha reliability coefficient was calculated as 0.84 in the development study of UETT developed by Ağır (2007). Although the target audience was teachers during the initial development, the reliability and validity analyses for the scale were repeated in this study. As a result of the reliability analysis, the Cronbach Alpha coefficient was found to be 0.88 for the sub-dimension "Advantages of Distance Education," 0.83 for the "Limitations of Distance Education" sub-dimension, and 0.85 for the whole scale. According to Büyüköztürk (2016), the reliability coefficient of the measurement tools used to measure psychological constructs has values of 0.70 and above, which is an indication that the scale scores are sufficient for reliability. In this context, it can be said that the scale is reliable since all the determined values are higher than the specified critical value. The first level Confirmatory Factor Analysis (CFA) result, which was conducted to examine the validity of the scale revealed $\chi 2/df=1.66$, GFI=0.89, CFI=0.93, TLI=0.92, PNFI=0.71, RMSEA=0.05 and SRMR=0.08; The second level DFA result was found to be $\chi 2/sd=1.67$, GFI=0.89, CFI=0.93, TLI=0.92, PNFI=0.71, RMSEA=0.05 and SRMR=0.08. These values calculated for DFA are a good fit and an acceptable fit in the extent of the values determined by the researchers for other indices except for the GFI value (Baumgartner & Homburg, 1996; Çerezci, 2010; Hu & Bentler, 1999). For this reason, it can be said that the two-dimensional structure of UETT is valid within the scope of this study.

In acquiring qualitative data, a semi-structured interview form consisting of open-ended questions prepared by the researchers was used. In the first part of the interview form, there are questions about the demographic information of the teachers participating in the research. In the second part, there are seven questions to determine the teachers' opinions about distance education. The questions were prepared separately by the researchers in line with the results obtained from the quantitative data and the literature review on distance education, and then they were evaluated together. The questions on which a consensus was reached were finalized with the opinions of two field experts, and an interview form consisting of seven open-ended questions was created. Researchers preferred open-ended questions as they allow the researchers to handle the research

problem with a flexible approach and to obtain in-depth information about the subject and phenomenon (Yıldırım & Şimşek, 2018).

Data Collection Process

Data collection for the research was carried out in January of the 2020-2021 academic year for quantitative data and in May for qualitative data. The researchers collected the data through Google Forms, created from the questions in the scale and interview forms. The answers given to the interview form were recorded with the Adobe Acrobat Reader program to prevent data loss.

Analysis of Data

Before proceeding to the quantitative data analysis, all data were checked to eliminate potential errors in the obtained data, and no erroneous data was found. Within the scope of the main problem of the study, descriptive statistics were calculated for the sub-dimension and total scores of UETT to determine the attitude levels of teachers working in Vocational and Technical Anatolian High Schools towards distance education studies. The standard arithmetic means, median, mode, minimum and maximum values were calculated by dividing the arithmetic mean, standard deviation, sub-dimension, and total scores by the number of items. Evaluation between 1.00-1.80 "I strongly disagree," between 1.80-2.60 "Disagree," between 2.60-3.40 "I am undecided," between 3.40-4.20 "Agree," Between 4.20 and 5.00 "Strongly Agree" format.

The sub-dimensions and total scores of the UETT were compared in terms of gender, educational status, being a vocational or culture course teacher, and professional seniority. For this, comparison tests were used. 11-15 years" and "16-20 years" groups, whose data will be compared, were combined as "11-20 years" because they had less than 30 data.

In comparison tests, skewness and kurtosis values of the data and Shapiro-Wilk W Test results were evaluated for the normality test (Hair, 1998). Kim (2013) stated that the skewness and kurtosis values were ±1.96 in sample sizes up to 50. It is recommended to directly look at the skewness and kurtosis coefficients in cases greater than ±3,29 and 300 and between 50 and 300. In absolute value, it is expected that the skewness should not exceed 2, and the kurtosis should not exceed 7. In this direction, the sub-dimension and total score of UETT were examined for normality. Skewness and kurtosis values and Shapiro-Wilk W Test, respectively, according to the subgroups to be tested. The normality assumption was met for the subgroups in terms of both skewness and kurtosis values and normality tests. For this reason, parametric tests were used to analyze the data.

Qualitative data were analyzed by the descriptive analysis method because the themes that would form the basis of the research were determined beforehand. The results obtained from the quantitative data and the themes revealed by the research questions obtained through the literature review on distance education are given in Figure 1.
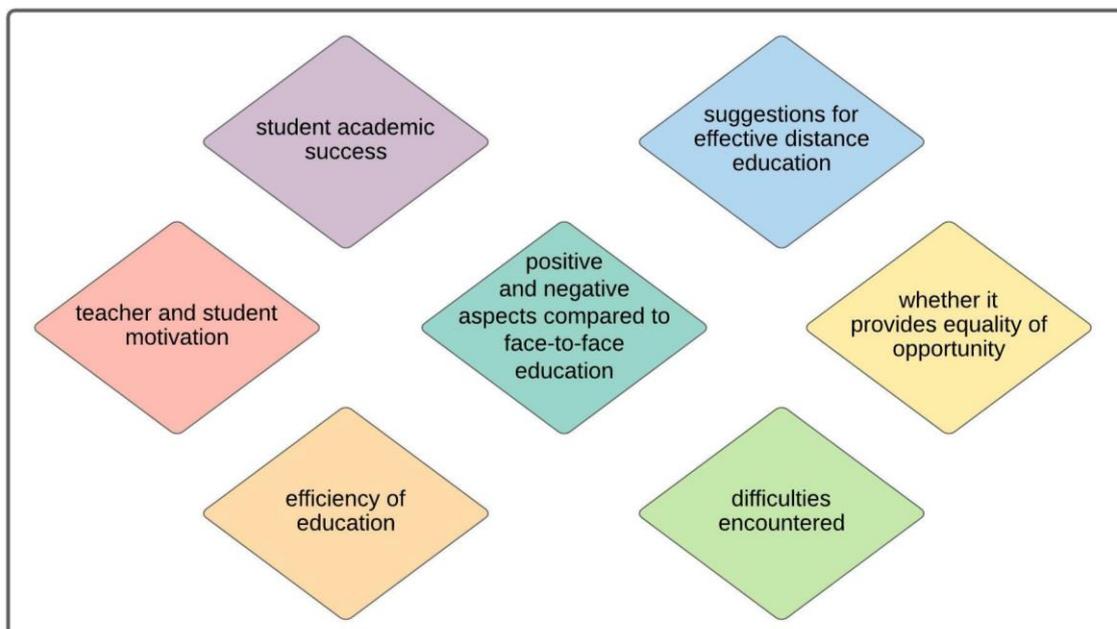
Figure 1. Quantitative results and themes obtained through literature review

The findings obtained with the descriptive analysis carried out with the themes in Figure 1 were supported by direct quotations from the participants' views. Moreover, they were examined and interpreted, and qualitative research results were reached. Yıldırım and Şimşek (2018) stated that the descriptive analysis of qualitative data could be organized according to the themes revealed by the research questions or by considering the questions used in the interview process. It also emphasizes that direct quotations can be used frequently to reflect the participants' views strikingly and enrich the descriptions. The reliability of the research was carried out by comparing the coding made by the researchers. In the reliability study, Reliability = Consensus / Consensus + Disagreement formula was used (Miles & Huberman, 1994). The mean reliability of all encodings is 92%.

FINDINGS

This section includes the findings obtained from the quantitative data, the qualitative data, and the comparison of the quantitative and qualitative data.

Quantitative Findings on the Attitudes and Opinions of Teachers Working in Vocational and Technical Anatolian High Schools towards Distance Education Studies

The descriptive statistics results of the attitudes and sub-dimension scores of teachers working in Vocational and Technical Anatolian High Schools towards distance education are presented in Table 1.

Table 1. Descriptive Statistics Results of Attitudes and Sub-Dimension Scores towards Distance Education

	x	SS.	Std. x	Median	Mode	Min.	Max.
Advantages of Distance Education	35,898	9,801	2,564	36,000	37,000	14,000	64,000
Limitations of Distance Education	26,193	5,864	3,742	27,000	28,000	7,000	35,000
Distance Education Attitude	51,705	12,018	2,258	52,000	51,000	21,000	86,000

When Table 1 is examined, it is seen that teachers disagree with the view that distance education has advantages (X=35,898) and that distance education has limitations (X=26,193). It can

be said that the general tendencies towards distance education are harmful because the teachers' attitudes towards distance education (X= 51,705) are below the medium level.

The t-test was used to examine whether the teachers' attitudes towards distance education differed significantly according to the gender variable, and the test results are presented in Table 2.

Table 2. T-Test Results of Attitudes towards Distance Education and Sub-Dimensional Scores by Gender

	Gender	N	x	t	sd	p	Cohen d
Advantages of Distance Education	Male	84	37,643	2,028	242	0,044*	0,273
	Female	160	34,981				
Limitations of Distance Education	Male	84	26,881	1,456	214,259	0,147	
	Female	160	25,831				
Distance Education Attitude	Male	84	52,762	0,995	242	0,321	
	Female	160	51,150				

* There is a significant difference at the p < 0.05 level.

As a result of the t-test performed according to Table 2, the limitations of distance education (t(214,259) = 1.456; p > 0.05) sub-dimension scores and distance education attitude scores of male and female teachers (t(242) = 0.995; p > 0, 05), while there was no significant difference in the sub-dimension of the advantages of distance education (t(242) = 2.028; p < 0.05). This difference has a small effect (Cohen d = 0.273). When the arithmetic averages for the sub-dimension of the advantages of distance education were examined, it was seen that the arithmetic averages of female teachers (x=37,643) were higher than the arithmetic averages of male teachers (x=34,981). In line with these data, the differentiation in the sub-dimension of the advantages of distance education is in favor of female teachers.

The t-test was used to examine whether the teachers' attitudes towards distance education differed significantly according to the variable of educational status, and the test results are presented in Table 3.

Table 3. T-Test Results of Attitudes towards Distance Education and Sub-Dimensional Scores by Educational Status

	Instructor Level	N	x	t	sd	p	d
Advantages of Distance Education	Undergraduate	189	35,963	0,193	242	0,847	
	Graduate	55	35,673				
Limitations of Distance Education	Undergraduate	189	25,794	-1,982	242	0,049*	-0,304
	Graduate	55	27,564				
Distance Education Attitude	Undergraduate	189	52,169	0,981	74,433	0,330	
	Graduate	55	50,109				

* There is a significant difference at the p < 0.05 level.

As a result of the t-test performed according to Table 3, the advantages of distance education in the scores of undergraduate and graduate teachers (t(242) = 0.193; p > 0.05) and distance education attitude score (t(74,433) = 0.981; p > 0.05), a significant difference was found in the sub-dimension of the limitations of distance education (t(242) = -1,982; p < 0.05). This difference has a small effect (Cohen d = -0.304). When the arithmetic averages for the limitations of distance education sub-dimension, where there is a significant difference, were examined, it was seen that the arithmetic averages of undergraduate teachers (x=25,794) were lower than the arithmetic averages of graduate teachers (x=27,564). According to these data, the differentiation in the sub-dimension of the limitations of distance education is in favor of graduate teachers.

Whether there is a significant difference between teachers' attitudes towards distance education according to the variable of being a vocational or culture lesson teacher was examined with the t-test, and the test results are presented in Table 4.

Table 4. T-Test Results of Attitudes towards Distance Education and Sub-Dimensional Scores According to Being a Vocational or Cultural Lesson Teacher

	Branch Type	N	x	t	sd	*p*	*d*
Advantages of Distance Education	Vocational Course	143	35,531	-0,693	242	0,489	
	Culture Lesson	101	36,416				
Limitations of Distance Education	Vocational Course	143	26,427	0,741	242	0,460	
	Culture Lesson	101	25,861				
Distance Education Attitude	Vocational Course	143	51,105	-0,928	242	0,354	
	Culture Lesson	101	52,554				

* There is a significant difference at the p < 0.05 level.

As a result of the t-test performed in Table 4, the advantages of distance education (t(242) = -0.693; p > 0.05), the limitations of distance education (t(242) = 0.741; p > 0.05) in the scores of vocational and culture lesson teachers) sub-dimension scores and distance education attitude scores (t(242) = -0.928 ; p > 0.05) were not found to be significantly different.

In order to test whether the attitude levels of teachers towards distance education show a significant difference according to the variable of professional seniority, teachers' attitude levels were determined according to their years of seniority. Then, a one-way analysis of variance (One-way ANOVA) of independent groups was used to compare whether the differences between the means in the seniority variable were significant. The analysis of variance, which was carried out to compare the descriptive statistical results of teachers' attitude levels according to their years of seniority, and whether the differences between the averages seen in the seniority variable are significant or not, are presented in Table 5.

Table 5. Descriptive Statistics of Attitudes towards Distance Education and Sub-Dimensional Scores by Seniority and One-Way Analysis of Variance Results

	Years of Seniority	N	x	Standard Deviation		F	*p*	Difference
Advantages of Distance Education Limitations of Distance Education	0-5	45	37,667	10,041	Between Groups	2,719	0,045*	0-5 > 20 and above, 6-10 > 20 and above
	6-10	65	37,354	8,834	In-group			
	11-20	55	36,273	10,477	Total			
	20 and over	79	33,430	9,619				
Distance Education Attitude Advantages of Distance Education	0-5	45	27,044	4,913	Between Groups	1,582	0,194	-
	6-10	65	24,877	5,859	In-group			
	11-20	55	26,491	5,231	Total			
	20 and over	79	26,582	6,658				
Limitations of Distance Education	0-5	45	52,622	12,876	Between Groups	2,789	0,041*	6-10> 20 and above
	6-10	65	54,477	10,194	In-group			
	11-20	55	51,782	12,261	Total			
	20 and over	79	48,848	12,328				

When Table 5 is examined, the teachers with 0-5 years of seniority have the highest average in the sub-dimensions of the advantages of distance education and the limitations of distance education. The teachers with the highest average of 6-10 years of seniority are found in the total score of distance education attitude. In the advantages of distance education sub-dimension and the total score of distance education attitude, teachers with a seniority year of 20 and above have the lowest average. In contrast, teachers with a seniority year of 6-10 have the lowest average in the limitations of distance education sub-dimension. While there is a difference in the advantages of distance education sub-dimension (F(3,240)=2.719; p < 0.05) and the total score of distance education attitude (F(3,240)=2.789; p < 0.05), the limitations of distance education sub-dimension (F(3,240))=1.582; p > 0.05) had no significant difference. These differences in distance education advantages sub-dimension (η2= 0.033) and distance education attitude total score (η2= 0.034) have a small effect. As a result of

the post-hoc comparison tests, two differentiations were determined in the sub-dimension of the advantages of distance education. In the first of these, it was observed that there was a significant difference between teachers with 0-5 years of seniority and 20 years and above in favor of teachers with 0-5 years of seniority. The other differentiation in this sub-dimension was 6-10 among teachers with a seniority year of 6-10 and teachers with a seniority year of 20 and above.

Qualitative Findings Regarding Their Views on Distance Education Studies

The findings regarding the teachers' views on the effects of distance education on the students' academic achievement are presented in Table 6.

Table 6. Teachers' views on the effects of distance education on students' academic achievement

Theme		Codes		N	%
Student Academic Success	Negative	Negative and unhelpful (T2, T4, T6-7, T9, T12-14, T16, T18-20, T22-23, T25, T28-30, T32, T34-40, T42)	27	34	79,1
		It reduces the success of uninterested students (T17, T27, T31, T33, T39, T41, T43)	7		
	Positive	Opportunity for the conscious and willing student. (T2, T12, T17, T25-26, T31, T33, T39, T41)	9	16	37,2
		It affects positively. (T1, T5, T8, T10-11)	5		
		It provides self-discipline. (T3, T21)	2		

In Table 6, the highest number of codes related to the adverse effects of distance education on the student's academic success and not providing any benefit were formed. Another code is that it reduces the success of irrelevant students. In addition, the most positive codes are the ones that express the opportunity for conscious and willing students. In contrast, the other positive codes express a positive effect and provide self-discipline. T23 "Distance education reduces the academic success of students." T17 "It increases the success of the related student, but it is a complete evasion for the irrelevant student." T27 said, "The education level of the students who do not follow the courses regularly is decreasing." T8 "I think that goals and behaviors can be achieved with distance education. There will be positive effects on academic success." T3 expressed that "Distance education provides individual awareness and self-discipline."

The findings regarding teachers' opinions regarding the evaluation of distance education in terms of education are presented in Table 7.

Table 7. Teachers' views on the evaluation of distance education in terms of educational efficiency

Theme	Codes	N	%
Educational efficiency in distance education	Inefficient (T1-2, T6, T8-12, T14-15, T17-18, T20-21, T23, T26-37, T40, T42-43)	30	69,8
	It is productive if it is supportive and complementary to face-to-face education (T3, T5, T18, T21-22, T24, T38)	7	16,3
	Efficient (T7, T13)	2	4,7
	Efficient for the relevant student (T25-26, T39)	3	7,0
	Better than no classes during the epidemic period (T1, T16, T41)	3	7,0

In Table 7, it is seen that the majority of the teachers who participated in the research stated that they found distance education inefficient in terms of education and training efficiency. Few teachers express that distance education is efficient in terms of education. Some teachers also state that distance education will be productive if it supports and complements face-to-face education or if students are interested. However, it is seen that there are teachers' opinions expressing that distance education is better due to the epidemic period. T15 "In general, I find it inefficient, at least in terms of Vocational and Technical High Schools." T5 It cannot replace face-to-face education, but I think it should be used in the sense of support. T13 "The students need to repeat the subjects to continue the education." T25 expressed, "I think it is productive for those who pay attention and listen in an

environment where time can be used efficiently, away from a noisy classroom environment." While expressing his opinion, T41 mentioned, "Although it is not a substitute for face-to-face education, I have to say that it is better than nothing because it tries to meet the need during the epidemic period."

The findings regarding the teachers' views on the positive aspects of distance education compared to face-to-face education are presented in Table 8.

Table 8. Opinions on the positive aspects of distance education compared to face-to-face education

Theme	Codes	N	%
Positive aspects compared to face-to-face education	Being independent of the place (T2-3, T5, T9, T12-13, T15, T18, T22-23, T25, T28, T30-31, T36-38, T41)	18	41,9
	No time restrictions (T5-6, T9, T13, T15, T18, T22-23, T25, T27-28, T30-33, T36, T38, T41)	18	41,9
	Saving time (T1, T3, T8, T12, T16, T19, T21, T26, T29, T42)	10	23,3
	Providing the opportunity to repeat (T12-13, T19, T27, T33)	5	11,6
	Being economical (T3, T6, T8, T18, T29)	5	11,6
	Providing flexibility (T1, T20-21, T34, T40, T43)	6	14,0
	Absence of in-class problems (T16, T25, T37)	3	7,0

In Table 8, it is seen that the majority of the teachers participating in the research expressed the opinion that distance education is independent of place and has no time restrictions compared to face-to-face education. In addition, teachers stated that distance education saves time, provides repetition opportunities, is economical, flexible, and does not have in-class problems, which are positive aspects of distance education compared to face-to-face education. T2 "It can be an advantage for the student who will not be able to attend school, education can be provided without the restriction of space, and the benefits of the digital environment in terms of resources are quite high." T32 "Although I do not see any positive aspects of distance education compared to face-to-face education, I can say that it is independent of time." T3 "It saves time. It emphasizes individual discipline. It is wide-ranged. It is economical." T35 said, "We could not actively use the smart boards in our classrooms due to lack of internet or weak internet. In distance education, we can share many activities with students. Since we can enrich the lesson more visually, it can provide effective learning. Also, in terms of my lesson, we can solve more questions in one lesson." T19 expressed an opinion. "Repeating the missing lessons and saving time for exam preparation." T6 "Being economical and time." T42 "Positive in terms of flexibility, time management, resource diversity" and T16 "I had the opportunity to show and solve more questions. In addition, since there were no student problems encountered in the classroom, I had the opportunity to teach more comfortably".

The findings regarding teachers' views on the negative aspects of distance education compared to face-to-face education are presented in Table 9.

Table 9. Opinions on the negative aspects of distance education compared to face-to-face education

Theme	Codes	N	%
Negative aspects compared to face-to-face education-	Limited interaction and communication difficulties (T1-2, T4, T7-8, T12, T14-15, T17-18, T21-22, T25-26, T28-29, T31-32, T35-37, T39-40, T42)	24	55,8
	Difficulties and lack of seriousness in providing motivation (T3, T6, T8, T12-16, T19, T21, T27, T30, T40-42)	15	34,9
	No attendance obligation and insufficient participation (T1, T3, T8, T13, T21, T24, T26-28, T34, T41, T43)	12	27,9
	Failure to provide equality of opportunity (T6-8, T12, T24-25, T38, T42)	8	18,6
	Not suitable for applied courses (T3, T7, T10-11, T20-21, T23, T37)	8	18,6
	Inability to meet the need for socialization (T7, T11-12, T14, T33, T41)	6	14,0
	Experiencing difficulties in measurement and evaluation (T2, T12, T15, T27, T34)	5	11,6
	Interruption of the lesson due to connection problems (T12, T24-25, T35)	4	9,3

In Table 9, it is seen that the majority of the teachers who participated in the research stated that distance education has limited interaction and communication difficulties, difficulties in providing motivation, lack of seriousness, and lack of attendance. Insufficient participation has negative aspects compared to face-to-face education. In addition, teachers stated that distance education does not provide equality of opportunity, is not suitable for applied lessons, cannot meet the need for socialization, difficulties in measurement and evaluation, and interruption of the lesson due to connection problems are the negative aspects of distance education compared to face-to-face education. T29 "I do not think that education can be possible without eye contact seeing all the students in three dimensions. Maybe limited teaching activity can be realized. However, education is something very different. It is necessary to touch the student. Body language remains disabled in distance education." T15 "The student had difficulties in motivation, and I think this was the most negative aspect. When motivation and desire were low or absent, education continued incompletely. In the online classroom environment, student-teacher interaction did not occur one-to-one. What and how much the student has learned could not be measured exactly by distance education."

T21 said, "Student participation rates are meager, student motivation is shallow, no application can be made, no feedback." T10 "I do not think the students can have sufficient professional skills with only theoretical knowledge." T11 "Applied subjects cannot be done. It includes handicaps in matters such as personal health and socialization." T15 said, "The student had difficulties in motivation, and I think this was the most negative aspect. When motivation and desire were low or absent, education continued incompletely. In the online classroom environment, student-teacher interaction did not occur one-to-one. What and how much the student has learned could not be measured exactly by distance education."

The findings regarding the teachers' opinions regarding the difficulties encountered in distance education lessons are presented in Table 10.

Table 10. Opinions about the difficulties encountered in the courses held with distance education

Theme	Codes	N	%
	Students not attending classes (T1, T3-9, T12-14, T17-19, T21-33, T36-38, T41)	31	72,1
	Students being indifferent (T2-4, T9, T19-21, T23, T27, T29-30, T33, T36, T39-40)	15	34,9
Difficulties encountered	EBA or internet-related connection problems (T9, T12, T16, T20-21, T24, T33, T35-36, T38, T41)	11	25,6
	Not being able to practice in vocational courses (T6-8, T10-11, T15, T37, T43)	8	18,6
	Difficulty following and controlling the student during the lesson (T1, T7, T16, T40, T42)	5	11,6

In Table 10, it is seen that the majority of the teachers participating in the research stated that the most common difficulty encountered in distance education courses is that the students do not attend the courses. In addition, the teachers stated that they encountered difficulties such as students being indifferent, problems related to EBA or internet connection, not being able to practice in vocational courses, and being difficult to follow and control the students during the course. T1 "Not all of the children have their room, and because we do not have the cameras turned on due to the family environment, I have difficulty in monitoring the student control and whether they can attend the lesson, and I can also say that the participation rate is low compared to the face-to-face lesson." T2 "The biggest problem is the indifference of the student." T38 expressed an opinion "Students attended the class with only grade anxiety, but they did not listen to the lesson by paying attention. Apart from that, connection and internet problems were a serious problem." While expressing an opinion, T11 said, "We had difficulties in practical matters that needed to be done in the workshop environment."

The findings regarding teachers' opinions on whether distance education provides an equal opportunity or not are presented in Table 11.

Table 11. Teachers' views on whether distance education provides equal opportunities or not

Theme	Distance Education	Codes	N	%
Whether it provides equal opportunity or not	It does not provide equal opportunity	Not every student has sufficient technological equipment (computer, tablet, internet connection, etc.) (T1, T3-5, T7, T9, T12-13, T15-16, T18-19, T21-30, T32-42)	32	74,4
		Presence of regions without internet infrastructure (T2-3, T10, T16, T29, T37, T39)	7	16,3
		Lack of suitable home environment for every student (T28, T36)	2	4,7
		Lack of support from some parents (T10, T34)	2	4,7
	Provides equal opportunity	For those who have the opportunity (T6, T8, T12, T31)	4	9,3
		No time and place restrictions (T14, T24-25)	3	7,0

In Table 11, it is seen that the teachers participating in the research expressed many different opinions on whether distance education provides an equal opportunity or not. Most teachers stated that distance education does not provide equal opportunity because each student does not have sufficient technological equipment (computer, tablet, internet connection, etc.). In addition, teachers stated that distance education does not provide equal opportunities because there are regions without internet infrastructure. Distance education has no suitable home environment for each student, and some parents do not support them. Few teachers stated that distance education provides an equal opportunity because it removes the time and constraints of those who have the opportunity. T1 "I do not think it provides access to the internet. It does not provide equality of opportunity due to the high number of children studying in the family, the number of tablets, computers, and the distance education equipment of the school and corporate culture of the teacher." T39 "It does not provide; I still have students who have internet problems and cannot attend my class." T8 expressed, "It provides a great deal, but parents have great responsibilities here. Due to financial impossibilities, there are difficulties with internet subscription and device supply." T25 "If the opportunities are equal, yes, it provides. Those who need to take private lessons because of illness or disability can easily attend common lessons. However, if the opportunities are not equal, it is impossible to discuss equality of opportunity." T28 "It does not provide because there are families without internet infrastructure, phones, tablets, and computers. Those with two rooms and five siblings do not even have a place to study. Moreover, T10 said, "No, due to infrastructure problems, irresponsible behavior of students and parents, no attendance obligation, no anxiety about failing in the classroom."

Most teachers (81%) stated that teacher motivation was low regarding teacher and students' motivation in distance education. A large majority (93%) stated that student motivation was low and focused on the reasons for this low motivation. For this reason, in line with the answers received from the teachers, it was tried to determine the teachers' opinions about the factors that reduce the motivation of teachers and students in distance education. The teachers' views on the factors that decrease teacher motivation in distance education are presented in Table 12. The teacher's views on the factors that decrease student motivation in distance education are presented in Table 13.

Table 12. Teachers' views on the factors that reduce teacher motivation in distance education

Theme	Codes	N	%
Factors that reduce teacher motivation	Low student participation (T4, T9-10, T13, T17-19, T21, T23, T28, T30, T34, T36-38, T41, T43)	17	40
	Lack of student desire and motivation (T2, T4, T11, T15, T21-23, T26, T29, T31, T35-36, T38, T40)	14	33
	Inadequacy of student interaction and communication (T1, T3, T8, T12, T40)	5	12

In Table 12, it is seen that some of the teachers who participated in the research (40%) stated that the low student participation, and some (33%) stated that the lack of student desire and motivation is the factor that reduces the motivation of the teachers. In addition, teachers stated that the lack of student interaction and communication in distance education and the lack of equipment students had reduced their motivation. T9 "There is no student participation. This affected the motivation negatively." T21 "The low participation rate and motivation of the students in the lessons also reduce

our motivation. However, the feeling of being helpful to even to a student and being able to teach something naturally increases my motivation." and T12 "I could never be, because student cameras are not compulsory, so it is completely unclear whom we are dealing with. In addition, there is a process that cannot be reciprocal but turns into narration over time. This affects the willingness to teach and the motivation to the lesson very negatively."

Table 13. Teachers' views on the factors that decrease student motivation in distance education

Theme	Codes	N	%
Factors that reduce student motivation	The examination and passing system are easy (T4, T9, T13, T18-19, T23, T27, T40)	8	19
	Participation is not compulsory (T4, T16-18, T23, T40)	6	14
	Distance education being a new method for students (T5, T8, T26)	3	7

In Table 13, it is seen that some of the teachers who participated in the research (19%) stated that the examination and passing system is easy, and some (14%) stated that the fact that it is not compulsory to attend the classes is the factor that reduces the motivation of the students. In addition, teachers stated that distance education being a new method for students is the factor that reduces students' motivation. T4 "Students do not have to attend the course; It is not motivated to distance education for reasons such as the convenience of the exam passing system. Even the student who has the opportunity prefers not to participate." T9 "Students were often reluctant to attend classes. There were just and unjust reasons. Especially the perception that everyone will pass the classes affected this motivation even more." T26 said, "Distance education is a newly implemented system and I think it has some shortcomings. For this reason, I think that the desired motivation is not experienced in the students. With the effect of the process we are in, students have moved away from the lessons psychologically. Since the beginning of the year, class participation has gradually decreased and in some classes, I often teach with a student. As such, low motivation became a serious problem. Apart from that, students who already have responsibility and succeed continued in distance education with the same effect."

The findings regarding the opinions of the teachers regarding the activities that can be done to carry out distance education more effectively are presented in Table 14.

Table 14. Teachers' views on the work that can be done to make distance education more effective

Theme	Codes	N	%
Recommendations for effective distance education	Class attendance should be made compulsory (T1-2, T5, T8-10, T12, T14-15, T17, T21, T24, T26-28, T30-31, T37-39, T41)	21	48,8
	Students and teachers' hardware (computer, internet connection, etc.) deficiencies should be eliminated (T9-11, T13, T19-20, T23, T26, T31, T35, T40-42)	13	30,2
	Parents should be made aware of distance education and cooperation should be established with parents (T6, T10, T12, T14-15, T20, T22, T24)	8	18,6
	An effective measurement and evaluation system should be established (T1-2, T10, T12, T19, T21, T25, T27)	8	18,6
	Internet network and EBA system technical infrastructure should be strengthened (T3, T8, T10-11, T35, T40-41)	7	16,3
	Everyone should have easy access to distance education (T4, T15-16, T18, T23, T25)	6	14,0
	Rich course content and materials should be prepared. (T3, T25, T33, T37)	4	9,3
	It should be ensured that the cameras of the students are on (T31, T36, T39)	3	7,0
	It should be supported by face-to-face training (T28, T33)	2	4,7

Table 14 shows that teachers participating in the research mostly have to attend the course for effective distance education studies, eliminate the lack of equipment (computer, internet connection, etc.) of students and teachers, raise awareness of parents about distance education, ensure cooperation with parents, provide a practical assessment and evaluation system, strengthening the internet network

and EBA system infrastructure, and providing easy access to distance education for everyone. In addition, the teachers made suggestions to prepare rich course content and materials for good distance education, to ensure that the cameras of the students are on, to be supported face-to-face education, be carried out with a small number of students, to provide training to teachers about distance education, and to reduce the lesson hours and curriculum. T2 "The attendance requirement should be stipulated, and the exams should be done with distance education." T31 "Equal opportunities should be provided to all students. First of all, one or two tablets should not be distributed, but as many tablets are missing, the need for the internet should be met. If these opportunities are provided, attendance should be mandatory, and it should be mandatory for the student to open his/her camera." T10 "There should be sanctions for all students to participate. Exams should not be done to get a grade in the system, and attendance should be mandatory. First of all, the infrastructure of distance education should be strengthened. 90% of our students have internet problems. Parents should also feel more responsible." T19 said, "There must be an effective evaluation and grading system. In addition, everyone should be provided with equal internet and computer opportunities."

RESULTS AND CONCLUSIONS

A detailed analysis of the attitude levels of Vocational and Technical Anatolian High School teachers towards distance education studies and whether these levels differ in terms of various variables (gender, education status, being a vocational or cultural course teacher, professional seniority) and the possible opinions of teachers that cause these attitudes. It is seen that the data obtained from quantitative quality research directly affects the reliability and validity of the study.

It has been concluded that the teachers disagree with the view that distance education has advantages and that they have the view that distance education has limitations. This result explains teachers' opinions about the negative aspects of distance education studies compared to face-to-face education, the difficulties they encounter in distance education studies, and the fact that distance education does not provide equal opportunities. Distance education, where most of the teachers are taught, has limited interaction and communication difficulties, difficulties in providing motivation, lack of seriousness, lack of attendance and insufficient participation, not providing equal opportunities, not being suitable for applied lessons, not meeting the need for socialization, difficulties in measurement and evaluation, connection problems and interruption of the lesson. That distance education has negative aspects compared to face-to-face education; It has been determined that students have stated that they encounter difficulties such as not participating in the classes, being uninterested in the students, connection problems originating from EBA or the internet, not being able to practice in vocational courses and being difficult to follow and control the student during the lesson. In addition, teachers think that distance education does not provide equality of opportunity because each student does not have sufficient technological equipment (computer, tablet, internet connection, etc.), there are regions without internet infrastructure, there is no suitable home environment for distance education for every student, and some parents do not support them. The negative aspects of distance education studies obtained from qualitative data compared to face-to-face education, the difficulties they encounter in distance education studies, and the fact that distance education does not support equal opportunities, the conclusion that distance education has limitations obtained from quantitative data. In the literature, some results coincide with this result. The limitations of distance education are limiting students' socialization, difficulty in communication, having various obstacles in practical learning, deficiencies in self-learning, being dependent on infrastructure and communication technologies (Kaya, 2004), and experiencing disciplinary problems (Bolliger & Wasilik, 2009). In addition, one of the most important limitations is the cost of the installation system required for distance education (Bakioğlu and Can, 2014; Bolliger and Wasilik, 2009). However, in the study conducted by Cabı (2018), it is possible for students to re-watch and read the material recorded with distance education without the concept of time and space, according to their learning process, to be included in the learning process at any time without the obligation to attend and to be able to use them simultaneously in environments where the number of students is high. It has been determined that the same education provides equal opportunities and is the advantage of distance education.

According to the gender variable, while there was a difference in favor of women in the sub-dimension of the advantages of distance education for teachers, no difference was found in the sub-dimension of the limitations of distance education. While a difference was found in favor of graduate teachers in the limitations of the distance education sub-dimension according to the educational status variable, no difference was found in the advantages of the distance education sub-dimension. No significant difference was found in the sub-dimensions of the advantages and limitations of distance education according to the variable of being a vocational or culture teacher. According to the variable of professional seniority, while no significant difference was found in the sub-dimension of the limitations of distance education, in the sub-dimension of the advantages of distance education, in favor of teachers with 0-5 years of seniority, among teachers with a seniority year of 0-5 and seniority of 20 and above; It has been determined that there is a difference in favor of teachers with 6-10 years of seniority between teachers with a seniority of 6-10 and teachers with a seniority of 20 and above.

It has been determined that teachers' attitude towards distance education is below the medium level. Based on this finding, it can be said that the general tendencies of teachers towards distance education are negative. It can be thought that the teachers' previous experience of distance education and, therefore, the lack of knowledge about distance education is effective in reaching such a result. As a matter of fact, in the study conducted by Ağır (2007), it was concluded that there is a significant relationship between teachers' attitudes towards distance education and their level of knowledge about distance education and that teachers who know distance education have more positive attitudes towards distance education. Studies that overlap with the results of the current study have been found in the literature (Akpınar, 2004; Moçoşoğlu & Kaya, 2020; Ülkü, 2018). Ülkü (2018) found that teachers' attitudes towards distance education were moderate but more damaging, whereas Akpınar (2004) found that teachers gave less importance to distance education than face-to-face education.

Similarly, Moçoşoğlu and Kaya (2020) concluded in their study that teachers' attitude levels towards distance education are low. However, in some studies conducted in the literature, some results do not overlap with the current research results. In the studies conducted, Ağır (2007) found that teachers' attitudes towards distance education were moderate and positive; Kocayiğit and Uşun (2020) stated that teachers' distance education attitude mean scores are at a "high" level; Ergin (2010) states that teachers' perceptions of distance education are slightly above the moderately positive point of view; Suer (2005) positive attitudes of instructors towards distance education; Dundar (2017) determined that the academic and administrative staff working at the university have a positive and slightly above average attitude towards distance education. Smidt (2014) concluded that pre-service teachers developed a positive attitude towards distance education, mainly because of their flexibility. Similarly, there are studies in which opinions about distance education are close to positive (Horzum, 2003; Kuşkonmaz, 2011).

In order to reveal the reasons for teachers' negative attitudes towards distance education, the advantages and limitations of distance education were evaluated by evaluating the sub-dimensions of "student academic success," "efficiency of education," "positive and negative aspects compared to face-to-face education," "difficulties encountered," and "equal opportunity ."It is seen that the opinions of teachers support this finding within the framework of the themes of "do not provide the students," "motivation of teachers and students," and "recommendations for effective distance education."

Expressing that the teachers negatively affect the academic success of the students, do not provide benefits, and decrease the success of the uninterested students; In addition, it has been determined that distance education is an opportunity for conscious and willing students has a positive effect on student success and provides self-discipline. In the study with teachers, Cabı (2018) found that students with high motivation towards learning are more successful in distance education; Demirkan, Bayra, and Baysan (2016) concluded that students who regularly follow their courses benefit more from distance education.

It has been determined that teachers find distance education inefficient in terms of education and training efficiency. It has been determined that very few teachers believe that distance education is

efficient in terms of education, and some teachers state that distance education will be productive if it is supportive and complementary to face-to-face education or if students are interested. In the literature study conducted with vocational school students, students evaluated the distance education system as an unsuccessful and inefficient application (Hakkari, 2018). In addition, Pınar and Akgül (2020) found that teacher candidates evaluate distance education applications as helpful and an excellent alternative to staying away from education during the Covid-19 pandemic.

It has been determined that the majority of the teachers have expressed the opinion that distance education has positive aspects compared to face-to-face education, as it is independent of the place and does not have time constraints, saves time, provides repetition opportunities, is economical, flexible and does not have in-class problems. In the study conducted by Cabı (2018), it has been determined that the most positive aspects are the reduction of the workload of the teachers' thanks to the pre-prepared course contents, the systematic, planned, well-coordinated process, and the opportunity to learn at their own pace, independent of time and place. Hakkari (2018) determined that the positive aspects of distance education are that students can access notes and documents after live lessons, watch the lessons again whenever and wherever they want and attend classes comfortably at home without going to school.

It has been determined that the majority of the teachers have expressed the opinion that limited interaction and communication difficulties, difficulties in providing motivation, lack of seriousness, lack of attendance, and insufficient participation are the negative aspects of distance education compared to face-to-face education. In addition, some teachers stated that distance education does not provide equality of opportunity, is not suitable for applied lessons, cannot meet the need for socialization, difficulties in measurement and evaluation, and interruption of the lesson due to connection problems are negative aspects of distance education compared to face-to-face education. This result of the research is similar to the results of the studies in the literature. In the study, Private Türküresin (2020) determined that students' learning is not permanent. The disadvantages of distance education are problems arising from measurement and evaluation, disciplinary problems, internet problems, system problems, and lack of interaction. Tuncer and Bahadır (2017) state that technological system-related problems negatively affect distance education. Cabı (2018), on the other hand, found in his study that teachers stated that it is positive and necessary to give lessons via distance education, but that the practical activities of the lessons can be done in face-to-face laboratories.

It has been determined that the majority of the teachers have expressed the opinion that the students' non-participation in the lessons is the difficulty encountered in distance education lessons. In addition, it has been determined that teachers face difficulties such as students being uninterested, connection problems originating from EBA or the internet, not being able to practice in vocational courses, and being difficult to follow and control students during the course. In the study conducted by Cabı (2018), it was determined that the gradual decrease in the participation of the students in the live lesson was the most encountered, as well as the difficulty of giving text-based feedback and the limited student-instructor interaction. Kırmacı and Acar (2018) determined that students experience internet access problems in distance education and low participation rates due to technical inadequacies. The most important reason students do not use the distance education system is that they do not have internet access (Gülnar, 2008). Hakkari (2018) determined that students could not attend live classes due to technical problems arising from the system, not having the necessary tools, and not having sufficient technological knowledge. For students to benefit from distance education applications at the desired rate, it is essential that they have internet access and that this access is unlimited (Er Türküresin, 2020). Karakus (2020) and Kan and Fidan (2016) stated that measurement and evaluation is an important problems in distance education applications; Sayan (2020) emphasized that activities such as laboratory and group work cannot be done in distance education applications, and distance education is not helpful in applied education. If all the studies are evaluated in general, it can be said that internet access is an essential factor in the effective implementation of distance education.

It has been determined that the majority of teachers have the opinion that distance education does not provide equal opportunities because each student does not have sufficient technological equipment (computer, tablet, internet connection, etc.). In addition, it has been determined that distance education does not provide equal opportunity because there are regions without internet infrastructure, there is no suitable home environment for distance education for every student, and some parents do not support it. This finding differs from Li, Zhou, and Fan's (2014) study. According to Li, Zhou, and Fan (2014), distance education is an essential tool in providing equality of opportunity in underdeveloped regions of China. The current study determined that a small number of teachers stated that distance education provides equality of opportunity because it removes time and places restrictions on those who have the opportunity.

It was determined that the majority of the teachers stated that the motivation of teachers and students in distance education is low. The factors that decrease the motivation of the teachers are low student participation of the teachers, the lack of student desire and motivation, the lack of interaction and communication with the students, and the lack of equipment that the students have; It has been determined that the fact that the exam and class passing system is easy, participation in classes is not compulsory and distance education is a new method for students are the factors that reduce the motivation of the students. In the literature, it is stated that teachers in distance education mainly cannot be motivated to the lesson, they cannot motivate the students, and they have difficulties in communicating with the students (Sayan, 2020); There are findings that teachers should provide interaction between teacher and student by using different and new applications that will allow interactive communication (Moore & Kearsley, 2011) and that this student-teacher interaction significantly strengthens students' sense of belonging to the learning environment (Luo, Zhang, & Qi, 2017).). In addition, it is emphasized that the most critical factor that ensures student continuity and determines the level of student participation in distance education applications is motivation (Hrastinski, 2009).

For the teachers participating in the research, it is mainly compulsory to attend the course for effective distance education studies, the equipment (computer, internet connection, etc.) deficiencies of the students and teachers are eliminated, the awareness of the parents about distance education, cooperation with the parents, the creation of a practical assessment and evaluation system, and the internet. It was determined that there were suggestions to strengthen the network and EBA system infrastructure and to ensure easy access to distance education for everyone. In addition, teachers have suggestions for preparing rich course content and materials for effective distance education, ensuring that students' cameras are open, supporting them with face-to-face education, carrying out with a small number of student groups, providing distance education training to teachers, and reducing course hours and curriculum. Distance education, which eliminates space and time limitations, has become a preferred method today with technology development. It had become compulsory during the period when face-to-face education was suspended due to the Covid-19 pandemic (Sayan, 2020). This situation has raised how distance education can be done more effectively. Sayan (2020) has determined that the instructors have opinions that distance education does not provide the effectiveness of face-to-face education.

For this reason, it is thought that it is essential to consider the suggestions of stakeholders for effective distance education studies. The results of the studies in the literature support the findings of the current research. In the study, Cabı (2018) found that blended learning environments in which distance and face-to-face learning environments are used together are recommended by teachers. According to Niekerk and Webb (2016), an approach that combines face-to-face teaching and online learning has been significantly more effective than face-to-face or online teaching alone. However, Kırmacı and Acar (2018) emphasized that since compulsory distance education may cause problems for students who are inadequate in infrastructure, time, and space, even if the asynchronous delivery of the lessons cannot prevent the infrastructure problem, it may be an essential step in preventing time and space-based problems.

It has been determined that there is no difference in the level of teachers' attitudes towards distance education according to the variables of gender, educational status, and being a vocational or culture course teacher. According to the variable of professional seniority, it was concluded that the attitudes of teachers with a seniority of 6-10 years towards distance education were in favor of teachers with a seniority of 6-10 years among teachers with a seniority of 20 years and more.

The study determined that the attitude levels of the teachers working in the Vocational and Technical Anatolian High School towards distance education studies did not differ according to the gender variable. In this case, it can be said that gender is not an influential factor in teachers' attitudes towards distance education. Many studies in the literature on teachers' attitudes towards distance education seem to support this finding (Ağır, 2007; Kocayiğit & Uşun, 2020; Moçoşoğlu & Kaya, 2020; Ülkü, 2018). In Horzum's (2003) study, similar study, it was determined that the instructors' views about Internet Assisted Education did not significantly differ according to gender. Following the research results, Dündar (2017) found no significant difference in the distance education attitude scores of male and female employees of Anadolu University. Again, Begimbetova's (2015) study determined that the distance education satisfaction levels of male and female instructors working at Gazi University were close to each other. Similarly, in the study conducted by Kuşkonmaz (2011), it was determined that mobile learning perceptions did not create a significant difference between female and male teachers. Again, Ergin (2010) determined in the study that there was no significant difference in teachers' views on distance education according to gender.

Similarly, in the study conducted by Gök (2011), it was determined that the general perception scores of the instructors towards distance education did not show a significant difference according to gender. However, in the literature, female teachers are more ready for distance education studies than male teachers (Alea, 2020), they have a more positive attitude (Doğan, 2020; Morante, 2017), and the level of attitude toward mobile learning is higher in female teachers than male teachers. Some studies concluded that the perceived difficulty in distance education is higher in female teachers than male teachers, and behavioral belief in male teachers is higher than in female teachers (Horzum, 2012). These results are not consistent with the present study. The reason for such differences in the research results reached in the literature on this subject may be that the research was conducted with different teacher groups at different places and times, or different measurement tools were used.

The study determined that the attitude levels of the teachers working in Vocational and Technical Anatolian High Schools towards distance education did not differ according to the variable of educational status. In this case, it can be said that education status is not an influential factor in teachers' attitudes towards distance education. Many studies in the literature on teachers' attitudes towards distance education seem to support this finding (Ağır, 2007; Kocayiğit & Uşun, 2020; Moçoşoğlu & Kaya, 2020). One similar study (2017) found that academic staff's distance education attitude scores were close. Similarly, in the study of Begimbetova (2015), it was concluded that there was no significant difference in the satisfaction levels of Ahmet Yesevi and Gazi University lecturers according to their academic titles. Again, in the study conducted by Gök (2011), it was determined that the general perception scores of the instructors towards distance education did not show a significant difference according to their educational status. Unlike the research results, it was determined that there is a significant difference in the attitude levels towards distance education between master's graduate teachers and undergraduate teachers in favor of master's graduate teachers (Ülkü, 2018). In addition, in the study conducted by Kuşkonmaz (2011), it was observed that there was a significant difference in mobile learning perceptions among teachers according to the variable of educational status. Such differences in studies may be that the studies were applied to different sample groups.

In the research, it has been determined that the attitude levels of the teachers working in Vocational and Technical Anatolian High Schools towards distance education studies do not differ according to the status of being a vocational or culture teacher. In this case, it can be said that being a vocational or cultural teacher is not an influential factor in teachers' attitudes towards distance education. In the studies conducted by Kocayiğit and Uşun (2020), Ülkü (2018), and Ağır (2007), in

the literature, it was concluded that the branch variable did not cause a significant difference in teachers' attitudes toward distance education. In Tekin's (2007) study, which is a similar study, it was determined that there was no difference in teachers' attitudes towards computers according to the branch variable. In the study conducted by Kuşkonmaz (2011), it was determined that there was no significant difference in mobile learning perceptions among teachers according to the branch variable.

Similarly, in the study conducted by Ergin (2010), it was concluded that there was no significant difference in teachers' views on distance education according to the branch. However, Social Studies teachers had minor positive viewpoints compared to other branch teachers, and Information Technologies teachers had the most favorable view. Unlike the research result, Baek (2017) stated that the attitude toward mobile learning is higher in teachers working at the secondary education level than in teachers working at the primary school level.

The research has been determined that there is a significant difference in the level of attitudes towards distance education studies between the teachers working at Vocational and Technical Anatolian High Schools with professional seniority of 6-10 years and those with professional seniority of 20 or more. It was determined that this difference favored teachers with 6-10 years of seniority. It can be thought that this result is because relatively young and experienced teachers with professional seniority of 6-10 years adapt more quickly to new teaching methods. In many studies in the literature, it has been determined that there are significant differences in the level of teachers' attitudes towards distance education studies, according to the2020; Ağır, 2007; Baek, 2017; Horzum, 2012; Moçoşoğlu and Kaya, 2020). In similar studies, Kuşkonmaz (2011) found that the perception of mobile learning is affected by professional experience and creates a significant difference.

Similarly, in the study conducted by Ergin (2010), it was concluded that teachers with professional seniority of 10-14 years have more positive views on distance education than teachers with professional seniority of 1-4 and 5-10 years. Unlike the results of the research, in the studies conducted by Kocayiğit and Uşun (2020) and Ülkü (2018), it was determined that there was no significant difference in the level of teachers' attitudes towards distance education studies according to the variable of professional seniority. In the study conducted by Gök (2011), it was determined that the general perception scores of the instructors towards distance education did not show a significant difference according to the age variable. Again, in Tekin's (2007) study, it was determined that there was no difference in teachers' attitudes towards computers according to the variable of professional seniority. These findings contradict the present study results.

SUGGESTIONS

In line with the results obtained from the research, the following suggestions can be made:

• Students can be provided with free/discounted access to the technological devices needed for a well-attended and suitable course with equal opportunity.

• In order to adapt to the developing technology, teachers can be given training on computer literacy, information technology competencies, and mobile technologies at regular intervals.

• Internet infrastructure system should be strengthened.

• In planning distance education, the wishes, preferences, and expectations of students and teachers can be taken into consideration.

• Hybrid education, which includes face-to-face education and distance education, can be adopted in the education system after the epidemic period.

• Rich e-contents for vocational courses can be prepared with the simulation, software, and computer programs necessary for the practical field courses that need to be taught in workshops and laboratories in Vocational and Technical Anatolian High Schools through distance education.

Suggestions for researchers might include:

• More generalizable results can be obtained by researching teachers' sample groups in different regions and their attitudes and views towards distance education.

• In addition, the differences and similarities can be compared with the studies conducted with teachers working in different school types.

• The current study can be repeated using different data collection tools apart from the data collection tools used in the research; moreover, experimental studies can be conducted on the effectiveness of the vocational courses carried out with distance education.

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