

TEACHERS' PERCEPTIONS AND TEACHING EXPERIENCES ON DISTANCE EDUCATION THROUGH SYNCHRONOUS VIDEO CONFERENCING DURING COVID-19 PANDEMIC

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ABSTRACT

This study aims to investigate perceptions and teaching experiences of the teachers on the distance education during the Covid- 19 pandemic. The case study design was applied in this study. This study was carried out with 15 teachers. The data was obtained through a semi-structured interview form. For analysis, the content analysis was conducted. According to the results, most of the teachers perceived distance education as a technology-oriented process rather than a new teaching model. Engagement of students had a key role in teachers' satisfaction. The teachers kept traditional teaching techniques during distance courses. For the teachers distance education was less successful than formal education because of lack of communication and interaction quality. Perceptions affect behavior and the quality of distance education applications affects the perceptions so, determining the perceptions of the teachers and

taking the necessary measures in this direction is crucial to enhance quality of the system.

Keywords: Distance Education, Teacher, Online Teaching, Video Conferencing, Synchronous

INTRODUCTION

The pandemic has spread all over the world, and it has affected humanity regardless of nationality, level of education, revenue or gender. Social, economic and political life has been impacted owing to precautions taken by governments to prevent the spread of the outbreak (Callaway, Cyranoski, Mallapaty, Stoye, & Tollefson, 2020). Definitely, the education sector was no exception. As the societal disruptions from COVID-19 spread, there is a question for every country, what about education? In an attempt to cut off the spread of the pandemic, most countries including Turkey, China, Italy, Spain and Japan (Handoyo, 2020) around the world have closed educational institutions for a limited time, which have impacted over 90% of the world's student population (United Nations Educational, Scientific and Cultural Organization [UNESCO], 2020).

SOLUTIONS FOR CONTINUITY OF EDUCATION DURING THE COVID-19 PANDEMIC

During this crisis, children and young people need to continue their education process somehow. The world leaders have taken urgent steps for continuity of education. For continuity of educational institutions, it is an undeniable fact that there is no better option than distance education. To abate impacts of school closures and provide educational opportunities for students and teachers at home, education should be maintained for everyone through distance education (UNESCO, 2020). Schleicher (2020) stated that we could

mitigate the impact of pandemic on education for students, parents and teachers by reshaping education and curricula through open online educational resources and digital learning platforms, digital learning; in other words we could switch from school environments to digital environments. On the other hand, it is possible the school closure during Covid outbreak may expand learning disparities for students who do not have equal opportunities. The technological possibilities of countries and readiness of students and teachers to learn and teach online have been one of the most important problems in this process. The results revealed by the OECD's Programme in International Student Assessment (PISA) in 2018 showed education systems of the most countries were not at the desired level to provide online education for students, which the evidence promotes the potential for opportunity gap in education during the Covid-19 pandemic.

Most countries worldwide have identified several solutions so as to continue the education process such TV broadcasts, online libraries and video lectures as during the pandemic (Basilaia & Kvavadze, 2020). For example, in China, COVID-19 epidemic broke out, in order to reduce the impact of the pandemic on teaching, Chinese Ministry of Education declared school closure until the spring of 2020 and initiated the teaching process for students' online learning and encouraged teachers to be active in process (Cheng, 2020). The process was regarded as "School's Out, But Class's On" during the postponed period (Cheng, 2020). Colleges and universities began to design and implement online teaching system as a result of urgent decisions made by education departments at all levels and they carried out the large-scale long-distance web-based teaching activities via web based teaching resources to students and national cloud platform (Zhang, 2020). Argentina has provided online teaching materials. In Belgium, educational programmes have been broadcasted. With the slogan "My class at home" virtual classes have been formed in France. In Hungary, education has switched to digital platform. In

Italy which the pandemic has damaged badly, the ministry of education has provided video tutorials and virtual meeting places for students and teachers (OECD, 2020).

To prevent the spread of the Covid- 19 pandemic to educational institutions and mitigate its effects on teaching, Republic of Turkey Ministry of National Education (MONE) suspended all types of education until April but has prolonged until beginning of May. MONE encouraged the teachers, students and parents by declaring “Not holiday distance education”. MONE has shifted the education process from traditional to distance learning via online platform and TV broadcasts on “Digital Education Platform (EBA)”. In response to school closure, MONE has also designed some TV channels called “EBA TV”. The curriculum from elementary to high school has been broadcasted on EBA Elementary School TV, EBA Secondary School TV and EBA High School TV and also online portal by using EBA. Towards the end of April, MONE has taken action for synchronous online (Zoom) teaching. It is the first time for teachers to teach online and take part in distance education (MONE, 2020).

DISTANCE EDUCATION

The definition of the term “distance” cannot be limited only by being far away from the teaching environment like school since the majority of students in distance education are close to their schools and can access teaching materials through electronic media. That’s why “distance” in physical sense is not an essential factor in the perspective of education (Rumble, 2019). Kaya (2002) regarded distance education as a discipline which provides lifelong education for anyone who wants to solve the inequality of opportunity, as well as contributing to the realization of a number of individual and social goals of education and based on self-learning. Uşun (2006) defined distance education

as a planned and systematic educational technology application. Moore and Kearsley (2011) used the term “distance education” instead of “distance learning and teaching” because education was more comprehensive term that including both learning and teaching in accordance to just learning or teaching and according to Moore and Kearsley (2011), distance education was both teaching and learning process that take places in the separation in space and time; requires elements of interaction via use of technologies. Distance education can also be defined as the transmission of information electronically to a remote place via satellite, video, sound, computer, multimedia technology and similar tools, or as an education system where the teacher and the student are located in different places (Tuncer & Tanaş, 2011). Given all the definitions above, it is seen that the concept of distance education emerges as leaning and teaching model in independent of time and space and provides educational opportunities through technologies.

ENHANCING QUALITY OF DISTANCE EDUCATION

To enhance the quality of distance education, it is necessary to determine objectives and content of education programs, teaching strategies and responsibilities of learners through the process as well as technology for delivery of knowledge. The strategic plan including answers of the questions “to whom, what, why and when” requires collaboration and coordination among teachers, students and principals of the educational institutions (Andrade, 2020). As the corner stone of distance education, teachers and learners should be ready to take part in the process. The factor can be called as “readiness”. The concept of readiness relates to stakeholders in the distance education system and refers to experience and knowledge in use of technology and the extent to which stakeholders benefit from technology and the use of ICT in this process. In order to be successful in distance education, Gök (2015) stated that the instructors should be adequately prepared with the teaching

strategies and techniques required to teach and conduct effective distance education courses / programs and the students should need to take their own responsibility for distance learning. It is necessary to determine what kind of courses and content will be given, as well as how the trainings will be designed. Human interaction, technical problems such as audio, picture and internet are also crucial for effectiveness of distance education. Birişçi (2013); Grant and Cheon (2007); Turgut (2011); Woods (2005) pointed out technical problems during distance education process had negative impacts on students' views on distance education and pull their motivation down. Another factor that enables learning in distance education is interactive process (Thamarana, 2016). Like the presentation phase of distance education, which course materials are designed and delivered, the phase "interaction" between teachers and students is critical as well. The quality of interaction can change in accordance with subject, content, age group of students and technology preferences as synchronous and asynchronous (Moore & Kearsley, 2011). Tuncer (2007) stated there were problems in distance education due to teacher qualities such as preparing quality materials in distance education, creating appropriate learning environments, communication and presentation. The findings of Marsh, Mitchell, and Adamczyk (2010) suggested the factors such as sound, image, communication problems, low interaction, body language used by teachers and duration of lessons in distance education process affected students' perceptions of distance education.

VIDEO CONFERENCING IN DISTANCE EDUCATION

Synchronous conferencing offers two way of communication; students and teacher hear each other (Oranburg, 2020). For better video conferencing, it is essential to consider the quality of video and audio, official time, teaching strategies, and opportunities for face-to-face meeting (Grant & Cheon, 2007). In the literature, there are some studies which concluded positive and negative

results of video conferencing related to interaction, success and views of students and teachers. These studies proved that video conferencing had positive effect on education (Candarli & Yuksel, 2012; Turgut, 2011); improved potential of interaction (Pattillo, 2007); increased attitude of students (Townsend, Demarie, & Hendrickson, 2001); on the other hand; video conferencing in distance education negatively affected students' attitude due to technical problems like audio and visual (Candarli & Yuksel, 2012) and it didn't enable students and teachers to have effective teaching and learning (Knipe & Lee, 2002).

The Purpose of the Research

The teachers are key players to effectively implement distance education. Perceptions affect behavior, so determining teachers' perceptions is also important for effective distance education (Miglani & Awadhiya, 2017). The quality of distance education applications affects the perceptions about distance education (Demirli, 2002). Determining the perceptions of the teachers and taking the necessary measures in this direction are crucial to enhance quality of the system (Birişçi, 2013). The implementation with video conferencing (online live) in primary, secondary and high schools has been put into practice for the first time, that's it is the first experience for most teachers. For this reason, teachers' perceptions should be determined and the system should be evaluated in order to make the applied system more convenient. This study aims to evaluate teachers' perception of distance education; teaching experiences (use of material and lesson preparation), stakeholders' responsibilities, readiness and technological competencies of teachers and effectiveness of distance education. It is thought the conclusions will shed light on distance education applications to improve the teachers' success, motivation and eagerness and to organize in-service training activities for teachers on distance education tools and practices. In this study, the

research question is “What are the teachers’ perceptions and teaching experiences on distance education through video conferencing?” The sub-research questions are:

1. How do teachers define the concept “Distance Education”?
2. What are the technological readiness (knowledge, skill and attitude) levels of teachers in response to distance education?
3. What are teachers’ motivational profiles to engage in distance education?
4. What are teachers’ opinions about behaviors and attitudes of the stakeholders?
5. How do behaviors and attitudes of the stakeholders affect teachers’ satisfaction with distance education?
6. What are teachers’ opinions about their technological pedagogical knowledge?
7. What are the opinions of teachers about the effectiveness of distance education they implemented?

METHOD

RESEARCH DESIGN

The case study in qualitative research methods was conducted in this study. A case study research involves the examination of a topic that is explored in one or more cases (i.e. an environment, a context) in a limited system and it is qualitative research method in which researchers make in-depth research about an event, activity, process or individual (s) and describe the situation as it exists (Creswell, 2007). Case studies may be used when enquirers aim to seek an in depth understanding of a social phenomenon and be interested in “how, what and why” questions (Ellinger, Watkins, & Marsick, 2005).

RESEARCH GROUP

In the process of selecting sample of this study, convenience sampling strategies was applied. In convenience sampling, while determining sample of this study, one can access to individuals who are conveniently available, easily and fast (Patton, 1990). During outbreak of the pandemic, interviews were carried out by video conferencing due to social distance restriction. The 15 teachers who have delivered distance course via video conferencing (zoom and live chat) participated in this study. Patton (1990: 184) stated that qualitative researches' sample size is determined in accordance to the purpose, what will be useful and credibility; what can be done with the time and resources inquirers have; that's why there is no formula for a sample size in qualitative researches. The participants were coded as "P1, P2, P3....P15".

DATA COLLECTION TOOL

The semi structured-interview was applied as data collection tool in this study. The semi-structured interview includes both questions with fixed options and open-ended questions to go deeply in the relevant field; but not a formalized list of questions. With opportunities for the interviewees to express themselves the respondent has the right to revise and edit the questions partially (Büyüköztürk, Çakmak, Akgün, Karadeniz, & Demirel, 2017; Sönmez & Alacapınar, 2016). The data collection tool was created on six themes teachers' perceptions of distance education, technology readiness, behaviors and attitudes of stakeholders, teachers' motivational profiles, technological pedagogical knowledge and effectiveness of distance education. The data collection tool is presented in Table 1.

Table 1: The questions of the semi structured interview

Questions	Structures
1. In which words do you explain the thoughts that distance education arouses in you?	Perception of distance education
2. Your level of knowledge and skills in using ICT and making use of distance education technologies; Can you evaluate how experienced you are with the process?	Technological readiness
3. What motivates you to take part in distance education?	Motivational Profiles
4. What are the behaviors and attitudes of your institution and stakeholders like teachers, students and parents you work with for the distance education process? To what extent have these attitudes and behaviors affected your satisfaction with the distance education process?	Stakeholders' behaviors and attitudes; teachers' satisfaction
5. What kind of preparations do you conduct in order to create a highly productive lesson environment in the distance education process in distance education?	Technological pedagogical knowledge
6. What do you think about your level of knowledge and skills regarding the use of technologies specific to your field in creating an effective lesson environment in the distance education process?	

7. Would you evaluate the level of achievement Effectiveness of of the targeted students' target behaviors Distance according to the face-to-face education Education environment? What are the plus or minus aspects? In your opinion, what aspects of distance education are the main reasons that make up this difference?
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In the process of the interview form, the related literature was investigated and then the interview form was developed in the light of these studies. The experts' explicit instructions were taken so that construction validity of the interview form was ensured. The interviews were carried out online by using videoconferencing systems because of the pandemic and simultaneously recorded into digital platform (laptop or desktop).

DATA ANALYSIS

Before data analysis, audio taped interviews were transcribed in order to work with data easily by means of NVIVO 11 program. The identities of individuals were concealed and code numbers were given to each individual. Content analysis method was used to analyze the data obtained from these interview texts. In this analysis, the content of the document is examined, then the data is categorized; upper and lower classifications are made (Sönmez & Alacapınar, 2016). By analyzing the data obtained from the interviews with the content analysis, the codes were created first and then the similar codes were brought together and categories were created. So as to get accurate and reliable findings, coding and categorization process was carried out several times by an expert.

FINDINGS

In the interviews, firstly the question “In which words do you explain the thoughts that distance education arouses in you? was asked and the findings obtained from the analysis of the answers given by the teachers to this question are presented in Table 2.

Table 2: Teachers’ Perceptions of Distance Education

Theme	Sub-themes	Participants	<i>f</i>
Teachers’ perceptions	Support Education	P2, P11, P14, P13	4
	The necessity of technology	P4, P15	2
	Continuing the education process	P1, P9	2
	Technology based education	P10, P4, P5, P8, P1, P13,	6
	Learning without feelings	P3, P6, P8	3
	Keeping in touch with the students	P5, P7, P12	3

When Table 2 was analyzed; teachers’ perceptions on the concept “Distance Education” were represented by 6 different codes: "Supporting for students' educational processes, necessity of technology, continuing education process and technology based education, learning without feelings, keeping in touch with the students". It was seen that distance education was perceived as a support education in the education process of the students by 4 of the participants, as necessity of technology by 2 participants, as continuing the education process by 2 participants, as processing technology-based education by 6 participants, as learning without feelings by 3 participants and as keeping

in touch with students by 3 participants. The teachers' perceptions of distance education are as follow:

“I regard distance education as a lesson that can be taught for reinforcement. It can be used for reinforcement.” [P2]

I think of it as reinforcement training besides formal education. It is utilized as reinforcement training for formal education” [P11].

“The first thing that comes to my mind in this process is to be in need of technology. A period when technological pedagogical knowledge came to the fore” [P15]

The opinions of the teachers on their knowledge and skills in ICT and in utilizing distance education technologies in the distance education process; attitudes towards distance education and how they are experienced are presented in Table 3.

Table 3: Teachers' technological readiness for distance education

Theme	Sub-themes	Participants	<i>f</i>
Teachers' technological readiness	Being ready for distance education	P1, P2, P5, P9, P10, P12, P14, P15	8
	Being unready for distance education	P3, P4, P6, P7, P8, P11, P13	7
	Having no technological devices	P4	1
	Feeling uneasy about distance education	P4, P7, P11	3

Having prior experience in distance education	P1, P12, P15	3
Having inexperience in distance education	P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P13, P14	12

According to table 3, 12 of the teachers expressed that they had no experience in distance education neither as a teacher nor as undergraduate students but 3 of the teachers stated that they gained experience as undergraduate student in the past. When investigated the indicators in relation to teachers' level of technological readiness for distance education, more than half of the teachers (8) expressed that they were ready for the process both technology and knowledge and skills how to apply digital platform but 7 of the teachers were not. One of 7 teachers expressed that s/he did not have technological hardware like laptop and desktop. Other opinion was to feel uneasy in the beginning of the process; 3 teachers had difficulties in getting accustomed to the change and that's why they felt uneasy and worried about the process. Some expressions of the teachers are presented from their answers below one to one quotations.

"I am keen on usage of technology. I've done different things before. I did online practice tests for my students; analyzed the results and shared with my students. I have never done an online synchronous video conference lesson before. However, I have recorded my courses and shared but this is not synchronous. My readiness for the process was high." [P12]

"I had no experience before. I am not very good in terms of knowledge and skill." [P3]

“When the process started, our readiness was not very high, it was about 25%. We did not foresee such a thing in advance. 4 weeks have passed since the process started. The readiness is now 50% because now we have learned how to use programs.” [P6]

“It is the first time that distance education has been employed at the primary level. That’s why I was not very ready for distance education.” [P8]

“At first, I was not ready, I was hesitant and anxious. I was not ready. I am not good at computer technology, but I learned by doing it. I think that I am better now. My motivation has increased since the process started.” [P7]

“This is the first time I have been doing distance learning. It is my first experience. I am technically novice. I don't have a laptop, for example. I have lack of knowledge. I did not know how to share screen in the first lesson. At first, my readiness was zero.” [P4]

To identify the teachers’ motivational profiles to engage in distance education, the question “What motivates you to take part in distance education based synchronous video conferencing?” was asked in the interview. The motivational profiles of teachers obtained from the answers are presented in Table 4 below.

Table 4: Teachers’ motivational profiles to engage in distance education

Theme	Sub-themes	Participants	<i>f</i>
Teachers’ Motivational Profiles	New technological software in education	P1	1
	Relieving exam anxiety for senior students	P4, P5, P11, P14	4

Ensuring the continuity of education	P1, P2, P3, P4, P6, P9, P10, P11, P12, P14, P15,	11
Relieving psychological distress of students	P2, P4, P8, P13, P14	5
As a matter of conscience	P3, P7, P12, P14, P15	5

According to Table 4, ensuring the continuity of education (11) came to the forefront among other motivational profiles the teachers explained. Other given motivational profiles are as below respectively, relieving psychological distress of students (5), as a matter of conscience (5), relieving exam anxiety for grade 8 students (4), and new technological software in education (1). The expressions of some teachers are as follows.

“Indeed, it is a new technology and an inevitable technology. It will be used in every field soon. These technologies will be an integral part of our lives, so these kinds of technologies increase my motivation. That the students engage in education during pandemic and also increase success and their awareness motivates me. Besides, new technologies motivate me.” [P1]

“Requirements of being a teacher motivate me. What will children do? Minimizing anxious of children who will take the exam “LGS” and not leaving children alone in this process motivates me.”[P14]

“In this process, I aim to provide the continuity of education for my own students in their education. I want them to facilitate their education at home and keep in touch with them. I encourage them

to take part in education process in order to continue their education.” [P14]

“The feeling of standing by the students pushes me to give lessons. There is no obligation to ask whether you have completed or not...” [P4]

“I have about 80 students who are all very good and successful students and we have known each other for three years. Before we started distance education, we had been in communication through what’s up. The fact that students are successful and we have known each other for a long time motivates me. I can’t ignore my students. I am conscientiously involved in the process.”[P12]

To determine the views of the participants’ about the behaviors and attitudes of their institution (school) where they teach and stakeholders like teachers, students and parents they have cooperated with for the distance education process, question 4 was asked to the participants. The findings are presented in Table 5 below.

Table 5: Students, parents, school and teachers’ behaviors and attitudes

Theme	Sub-themes	Participants	f
Behavior s and attitudes	Attaching importance to the process	P9, P10, P11, P4	4
	School Attaching no importance to the process	P14, P2, P3	3
	Student s Having a positive attitude	P14, P10, P12, P13, P3, P4, P7,	7

	Having a negative attitude	P15, P9, P11, P2, P13, P6, P5, P8	8
Parents	Giving support to the process	P14, P10, P12, P3, P4, P7, P1, P13	8
	Giving no support to the process	P15, P9, P11, P2, P6, P5, P8	7
Teachers	Cooperating	P12, P3, P12,	3
	Not cooperating	P15	1
	Promoting my job satisfaction	P14, P10, P3, P4, P7, P1	6
	Lowering my job satisfaction	P15, P11, P13, P2, P6, P5, P8	7
	Not changing my job satisfaction	P9, P12	2

In regard to the school, only 7 participants gave their opinions but the rest did not have a comment on the school's behaviors and attitudes. Among 7 participants, the majority stated that their schools attached importance to the process and fulfilled their responsibilities for employing distance education effectively. However, 3 participants stressed that their schools remained passive and did not care about the process. With relation to students' behaviors and attitudes towards distance learning, the participants stated the students had a positive attitude towards distance courses and attended actively to the courses (7); on the other hand, majority of the participants (8) explained that the students had a negative attitude and they did not attend classes at the desired level. On parents' attitudes and behaviors, it was seen that the number of parents who supported and cared for the process was higher than the number of parents who did not support and ignored the process. In this sense, 8 of the participants emphasized that the parents displayed a positive attitude, while 7

participants expressed the opposite opinion. The least mentioned of these sub-themes was about teachers' attitudes and attitudes. Only 4 participants expressed their opinions about their colleagues. While 3 of these participants stated that they cooperated with other teachers, 1 participant stated that they did not cooperate. The rest did not mention anything clearly about teachers they work with. Some of the statements about stakeholders are as follows:

“First, parents' attitude is shocking me. I created what's up group with parents. I included the parents, but they left the group. I wanted them to take part in the training. The parents' economic level is low. Parents do not want to hear anything about the education of their children. The number of participant is about 9-10. Students' perspective is much better than parents. I do not know teachers' attitude, since I could not meet with teachers much. However, we collaborate with teacher friends outside the school.”[P15]

The administration is doing their best for the system and they support the process. Students do not show much interest. The number of participants is low. Some students have technological problems and the rest do not want to attend. I think most of them are reluctant. Those who do not have the internet cannot also enter the system. Parents are not very active. They do not support the process. I think they are very uninterested.”[P11]

The attitudes of parents and students do not satisfy me. The number of participants is not satisfactory but it derives from technological infrastructure I think this is not an excuse. However, I think this is not the same in every school. Older students are less reluctant than younger students. I think the socioeconomic level is

a crucial factor. The number of participations is related to age of students.”[P7]

“The school administration is making official notifications. Parents are trying to support the process as much as possible. Even if the students have an interest, most students can’t attend lessons because of the technological possibilities. The technological knowledge of parents is also effective. They want but they can't enter. The number of students who has computer and internet is low.” [P9]

“We have kept in touch with teachers via what’s up since the process started. Most teachers are unwilling and the reason can be technical connection problems. The process started very fast, we were unprepared. There are not many materials to use in EBA. I think students’ parents are not very sensitive. If parents had been supportive, participation would be higher now. Students are unwilling.” [P6]

The teachers’ opinions on the extent to which the attitudes and behaviors of the stakeholders affected their satisfaction are presented in Table 5 above. In accordance with the teachers’ views, it was identified that 6 of the participants was positively affected by the stakeholders. They stated parents’ support, positive attitudes of students; school administrations’ devotion improved their satisfaction with the distance education process. On the other hand, some participants (7) were negatively affected by stakeholders and they stated that stakeholders’ behaviors and attitudes towards the process lowered their satisfaction with distance education. 2 of participants explained they disregarded stakeholders’ effects on their satisfaction and the event did not change their satisfaction. Some of the expressions about satisfaction are presented below:

“Parents' attitudes lower our motivation. Even if there was a student, I would do the same thing, but if we had obtained a respond from the students, it would be a better process now. Education level and socioeconomic level of parents is a direct factor.” [P15]

“The willingness of the students enables me to be more eager and I try to prepare better.” [P10]

“The more the number of students increases, the more I teach enthusiastically” [P4].

“This does not affect my motivation. Even if there was a student, I did my lesson with the same motivation.” [P12]

The next question is about their level of technological pedagogical level and how to prepare for course on videoconferencing platform. In this sense, two questions were asked to the teachers. The teachers' views are in Table 6 as follow.

Table 6: Technological pedagogical levels of teachers

Theme	Sub-themes	Participants	<i>f</i>
Teachers' Technological Pedagogical Level	Using visual sources	P14, P9	2
	Creating presentation in Powerpoint	P15, P7, P8, P1	4
	Using interactive book	P15, P9 ,P11, P12, P13, P4, P6, P5, P7, P1	10
	Preparing my own notes	P2, P3	2

Having knowledge and skills on how to employ the technologies	P15, P9, P10, P12, P2, P5, P8, P1	8
Being inadequate to use technologies for comprehensive education	P14, P11, P13, P3, P4, P6, P7	7
Being suitable for my branch	P2, P6, P7, P8	4
Being unsuitable for my branch	P10, P11, P2, P4, P6, P12	6

According to table 6, using interactive book came first among materials the teacher applied during preparation process. Other views are as below in turn, creating presentation in PowerPoint (4), preparing my own notes (2) and using visual sources (2). For teachers' technological pedagogical level, the majority of the teachers (8) stated that we had required knowledge and skills on how to employ the technologies for efficient and effective online course. But, 7 teachers stated they were inadequate for technological usage and untrained. 6 of the teachers pointed out their branches were unsuitable for distance education and they had difficulties in preparing materials and teaching. These were numerical field teachers. 4 of the participants revealed that they had no problems in teaching because their fields did not include problem solving and numerical problems. Some statements from the teacher opinions are as below:

“I give importance to remarkable teaching materials. I have lots of textbooks and pdf sources and I use them as well as presentations. I benefit from the videos on the internet. I can

actually access more effective resources than the opportunities in the school. I can offer multiple media.” [P1]

“I don't think the lessons are very efficient because it is necessary to write constantly, Math is not a verbal lesson which you teach verbally. I trying to use a mouse like a pen and it is very difficult. Usually the lesson is carried out by question and answer teaching method, and it displeases the students. I usually use pdf and z books in the process. I think video conferencing is not very suitable for the education process my field has” [P11]

“If I had a graphic tablet, I would use it. I regard myself as adequate to use technologies for education but we just have lack of hardware.” [P2]

I cannot design any materials. I use readymade teaching materials like Z books and Pdf resources. I use interactive resources. In preparation, my field is appropriate but not difficult. The application can be done in some way. It's easier when we compare English with Math.” [P]

I consider my technological pedagogical competence is sufficient. However, the zoom is newer to me. In my own lesson, it is very difficult to solve the problem solution. “[P12]

In question 7, it was aimed to learn teachers’ teaching experiences in distance education process and their views on effectiveness of distance education. For this purposes, “Would you evaluate the level of achievement of the targeted students' target behaviors according to formal education? What are the plus or minus aspects? What aspects of distance education are the main reasons that make up this difference?” were asked to the teachers. Teachers’ opinions are presented in Table 7 below.

Table 7: Comparing effectiveness of distance education with formal education

Theme	Sub-Themes	Participants	<i>f</i>
Comparing effectiveness of distance education	Distance Education is ineffective	P9, P10, P3, P6, P5, P7, P8, P1, P14, P12, P4, P13, P2	1 4
	Fail to make eye contact	P14, P15, P11, P13, P6, P7, P8, P1	8
	Ineffective communication	P14, P9, P11, P2, P6, P5, P8	7
	Ineffective Classroom Management	P14, P9, P2, P3, P6, P5, P7, P8	8
	Not getting feedback	P15, P10, P11, P12, P3, P7	6
	Impossible to learn by doing	P13, P4	2
	Internet Access	P2	1
	Both are effective	P15	1
	As support education after pandemic	P9, P12, P13, P4, P7, P1	6

According to Table 7, the majority of the teachers (14) expressed was ineffective and only one teacher stated distance education was as successful as formal education. When the reasons of failure of distance education were questioned, some teachers (8) pointed out we failed to make eye contact and 8 of the teachers stated that they had no opportunity to observe students for classroom management. Other opinions are as below respectively ineffective communication (7), not getting feedback from the students (6), impossible to learn by doing (2), internet access (1). Less than half of the teachers (6) pointed

out they could deliver distance education for reinforcement after pandemic.

Some expressions of the teachers are as below:

“The exchange of emotions such as love, resentment and anger do not take place in distant education. There is no sharing of emotions, no socialization and no socialization. Success in formal education is higher.” [P1]

“If I compare it with face to face education, the level of success in distance education is lower due to lack of communication and being unable to see them. The students see me but I do not see them during lessons. I can't make eye contact with the students. The feedback cannot be provided. Not being able to see is another factor because what is s/he doing during the lesson? I do not know.” [P7]

“It is a mistake to compare distance education and formal education. We can provide some training in distance education, but it is not a substitute for face-to-face education in terms of teaching. Lack of communication in distance education and no opportunity to observe the class at the same time lower the success. The students are physically there but they do not attend the lessons actively.” [P6]

Success is lower in distance education. The most important disadvantage is that we don't have a white board. We are not ready for distance education due to lack of hardware and equipment. 25% of students have an internet connection; it is the biggest problem, which causes inequality in education. Distance education can be used for doing practice test, but not suitable for lecturing. Students are not ready. There are some problems in terms of classroom management. I cannot see what the student is doing while I am teaching because the cam is off. We don't know

ifs /he is playing computer games. There is a problem in terms of communication. Classroom management is different from formal education. The process could worsen educational inequality.” [P2]
“It is necessary to do experiment and teaching by doing activities and demonstrating. In distance education, we only lecture on a subject. There is no sincerity and communication in distance education. That we are just exposed to hearing conversation is not enough. It is necessary to talk face to face with the child.” [P4]

DISCUSSION AND CONCLUSION

It was observed that the teachers defined distance education as "needing technology, continuing education, a callous education, communicating with students". The prominent of these answers was the technology-based training response. Distance education was regarded as a support education by some teachers; some teachers used negative expressions about distance education and a few teachers' expressions did not fully reflect on distance education. It can be said that the teachers did not consider distance education as a new method teaching but continuation of formal education. According to Kaya (2002), distance education is a separate type of education that cannot be considered as a substitute for traditional face-to-face education. It can be thought that the teachers' implementation of distance education for the first time, lack of knowledge and experience about distance education and the technical problems they faced in this process played an important role in perceiving distance education. In addition, inadequate student participation, expectations of the teachers, having difficulties in preparing and presenting materials in their own fields and being used to face to face education may be other factors that affected their perceptions of distance education. It is important to define instructor perspectives in order to perform the distance education process effectively and efficiently (Dooley & Murphrey, 2000). In

the literature, many studies suggested that teachers did not have clear information about distance education (Alakoç, 2001); the dimension of knowledge that teachers had about distance education (Ateş & Altun, 2008); lack of experience (Li, 2009); previous experiences (Şimşek, İskenderoğlu, & İskenderoğlu, 2010); factors such as voice, image and connection problems and quality of communication (Marsh et al., 2010) affected the perspectives of teachers about distance education. In this sense, the quality of distance education affects their perception of distance education (Demirli, 2002); these perceptions affect the process and the level of success (Offir, Barth, Lev, & Shteinbok, 2003).

It is crucial to evaluate the readiness of the teachers for online teaching since it plays important role in effectively delivering online education (Miglani & Awadhiya, 2017). On teachers' technological readiness (knowledge, skill and attitude) for distance education, it was concluded that more than half of the participants teachers were ready and had required ICT skills and knowledge; nearly all of them except 3 participants had no prior experiences. The participant teachers' inexperience in distance education and lack of knowledge can be main factors that determine their perspectives about distance education; so as to provide qualified distance education, teachers' perceptions should be developed and necessary trainings should be provided in pre-service training and [in-service training activities](#). The closeness and readiness of the teachers to the system during the education process is an important input of the teaching system. The necessary technological equipments and hardware and lack of knowledge should be eliminated as much as possible so that teachers develop positive perceptions of distance education. Gök (2015) stated that instructors had to have knowledge and skills required to conduct more effective distance courses.

It was observed that the most important reason for teachers to engage in the distance education process was the continuation of the usual education

process. The other motivational profile was the conscientious obligation of the teaching profession and the psychological relief of the students in this process. In this sense, it can be interpreted that the teachers did not see distance education as a new field of education in this process because they switched to distance education quickly, and they considered that distance education was equivalent to formal education and embed it as its continuation.

Bolliger and Wasilik (2009) categorized possible factors that affected teachers' satisfaction in online learning environments as students, teachers and institutional factors. In the result of this study, some teachers emphasized that students' attendance and engagement are lower than they expected, it caused dissatisfaction with distance education; some teachers stated in contrast. In relation to the institutional support, majority of the participants did not make any comments; it can be said that they had no idea what the institution had to do during the process. It is concluded that the behaviors and attitudes of parents, the institutional, students and teachers made the teachers more effective and productive and vice versa. This conclusion is in compliance with Bolliger and Wasilik (2009), students' participation and attitudes; their performances in classes; cooperation of teachers with other teachers affected teachers' perspectives on the process and their satisfaction with the process. It was observed that most of teachers emphasized they suffer from students' engagement and attitudes the most. The reason for inadequate engagement of students can be thought that socio economic level of families and potential to reach technological possibilities and support students receive from their families. The sample statements of some teachers corroborated conclusion that the extent of participation may be directly related to the socio-economic levels of the students. The socio-economic level refers to be the lack of necessary technical equipment and technical problems. Johnson (2008) pointed out students' not being accustomed to the new learning process and not having the necessary competencies for e-learning one of affected participation and

performance of the students dramatically. This suggestion is in compliance with findings of Johnson (2008).

Some studies investigating students' attitudes towards distance education in the literature revealed that students did not have a positive attitude towards distance education systems and technologies (Candarlı & Yuksel, 2012; Şimşek, İskenderoğlu, & İskenderoğlu, 2010; Ural, 2007). In the researches on synchronous distance education through video conferencing, it was stated that students' connection problems, some technical problems such as audio and video caused the students to be distracted from the lessons (Candarlı & Yuksel, 2012; Grant & Cheon, 2007; Woods, 2005). Bilgiç and Tüzün (2015) argued that low level of technological literacy and lack of technical equipment affected the students' interests in the lessons. Gürer, Tekinarslan, and Yavuzalp (2016) explained that teachers' interacting with other colleagues and the value given by teachers to the distance education and the support they give to teachers affected the satisfaction of teachers. The participants in Gürer et al. (2016)'s study, indicated that the instructors, who offered common compulsory courses online, stated that the participation, interest and performance of students in the online courses remained low. The reasons for the students' disinterest in the lessons can be seen as not having the necessary features for distance education, and being accustomed to face to face education (Golladay, Prybutok, & Huff, 2000).

On the expression of the teachers about lesson preparation for effective process, it was seen that majority of them used readymade materials and a few teachers designed original materials. Although more than half of the teachers said that we had technological pedagogical competence, the number of the teachers who designed teaching material was not substantial. The most important reasons for the situation can be the teachers' perspectives and approach, students' engagement, prior experiences, not giving up traditional teaching technique and not implementing teaching strategies and techniques

to conduct effective course. Tuncer (2007) noted the teachers experienced problems in the preparation of quality materials in distance education and the creation of an effective learning environment. Koloğlu, Kantar, and Doğan (2016) indicated that teachers implemented a new teaching method, that's why they had to make spadework and the factor that teachers kept traditional teaching techniques resulted in undesirable situations. The study by Cronjé (2001) revealed that not using effective methods in designing lessons and developing materials affected success in distance education. Lloyd, Byrne, and McCoy (2012) pointed out lack of teachers 'teaching experience in distance education and change in their usual roles frustrated teachers to design effective courses. It can be said that technicians, instructional and material support should be given to teachers for more effective distance education courses. It can be stated that pedagogical support and material support could improve performance of teachers (Lloyd et al., 2012); increasing the quality of the course materials could minimize teachers' negative thoughts (Seaman, 2009). Besides, the branches of teachers may be another reason for not preparing innovative and creative materials. The teachers in numerical lessons emphasized they had difficulties in establishing an effective educational environment due to their branches. Horzum (2003) advocated the idea that social lessons will be taught more effectively with distance education compared to science lessons.

On evaluating effectiveness of distance education, nearly all teachers pointed out distance education do not met their expectations adequately. According to Knipe and Lee (2002), distance education through video conferencing and classroom training did not offer the same quality of teaching. Majority of the teachers confirmed human interaction and communication opportunities were not as effective as face to face education. It was observed that teachers attributed the ineffectiveness of distance education to the problems caused by lack of face to face interaction between teacher and student. It was expressed

video conferencing conducted by teachers provided for synchronous listening but not watching; the students could see their teachers but the teachers could not. In spite of that, some students were reluctant to attend the class by opening audio. That's why some student remained passive; the teachers were not able to make eye contact with the students. Some teachers indicated that they did not get feedback from the students during courses. The findings are in compliance with limitations of distance education in the literature: not facilitation of face-to-face educational relations easily, preventing students from socializing, ineffective in performing behaviors related to skills and attitudes and lack of practical lessons (Kaya, 2002). McLean (2006) revealed that the lack of direct feedback and personal face-to-face communication in many online learning environments affected many teachers, and caused their interest to decrease. There are many studies in the literature expressing the deficiencies and problems in distance education. In the literature, some studies stated the main problems arising in distance education were low interaction between student-teacher and student-student due to lack of face-to-face interaction (Li, 2009; Rasheed, 2007; Woods, 2005); absence of quick feedback (Woods, 2005) ; technology not being used correctly and effectively. It is thought technical problems both teachers and students faced caused lack of communication. It is known that both teachers and students had problems in entering the system. Birişçi (2013) in the result of his study revealed that the students who stated that the technical problems experienced in the video conference system constituted an obstacle in the communication between the teacher and the student in the course of the lectures, and that they had some negative thoughts in the form of not being face to face with the teacher and not being motivated towards the lesson. Some studies revealed that paying attention to interaction in distance education and solving student's problems in the fastest was a variety that has a significant impact on success and distance

education in distance education. (Golladay et al., 2000; Wheeler, 2002). These conclusions fit to the findings of this study.

In conclusion, the findings showed that teachers' inexperience had an impact on teachers' perception of distance education. It was also obtained that the teachers regarded distance education as an education supporting formal education and but not as a new teaching method. Engagement of students was crucial to promote teachers' satisfaction with distance education. The teachers kept keeping traditional teaching techniques in designing lessons and developing materials. Lack of social interaction and eye-contact with students; absence of feedback lowered the effectiveness of distance education.

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