Research Article

Gifted students and teachers' perceptions of distance education process in the COVID-19 pandemic

Vedat Aktepe[1], Gülüzar Ergin[2], Leyla Aktepe[3], & Ahmet Emre Ergin[4]

Department of Elementary Education, Faculty of Education, Nevşehir Hacı Bektaş Veli University, Nevşehir, Turkiye

Article Info	Abstract
	The development of educational technologies has contributed positively to learning and teaching process by diversifying educational environments and activities. With the development of distance education programs, it has also become possible to conduct online and offline courses through distance education. Due to the measures implemented during the COVID-19 pandemic that emerged in the world and in our country, face-to-face education could not be provided at schools, and teachers and students benefited from distance education. The purpose of this study is to investigate distance education process of gifted students and their teachers at the Science and Art Center (SAC) during the COVID-19 pandemic. A case study method which is one of the qualitative research methods was used in the research, and data were collected through interview questions. The sample of the research consists of teachers and students at Halil İncekara Science and Art Center in Nevşehir, Turkiye. Data were collected with a semi-structured interview and analyzed descriptively. According to the results of the research, the advantage of distance education process is an increase in the efficiency of using time, space, transportation, and technology. On the other hand, the disadvantages of distance education are listed as limited socialization, problems in activities that require practice, lack of technological infrastructure and hardware, problems in the Internet connection, difficulty in understanding the subjects, an increase in communication problems and lack of peer interaction.

To cite this article:

Introduction

The 21ˢᵗ century has been a century in which the impact of globalization has been felt intensely all over the world. A change or development in any part of the world affects the whole world in a short time with the effect of globalization. In this sense, some epidemics in the world in recent years pose a serious threat to human health. Yelboğa & Aslan (2020) state that societies get closer to each other and are affected from each other due to travels, ease of transportation, Olympics, international student exchange programs, wide commercial and industrial relations among countries.

---

[1] Correspoonding Author: Assoc. Prof. Dr. Vedat AKTEPE, Nevşehir Hacı Bektaş Veli University, Nevşehir, Turkiye. E-mail: vedat.aktepe@hotmail.com, ORCID: 0000-0001-5259-9340

[2] Gifted Students Teacher and Science Expert, Incekaralar Primary School, Nevşehir, Turkiye. E-mail: ergingulizar@hotmail.com, ORCID: 0000-0002-6918-1060

[3] Gifted Students Teacher and Science Expert, Nevşehir Halil Incekara Science and Art Center, Nevşehir, Turkiye. E-mail: laktepe@hotmail.com, ORCID: 0000-0003-3568-4003

[4] Gifted Students Teacher and Science Expert, Nevşehir Halil Incekara Science and Art Center, Nevşehir, Turkiye. E-mail: aee42@hotmail.com, ORCID: 0000-0001-8055-8714

Topkaya (2016) states that many new diseases such as swine flu, Zika virus, Crimean-Congo haemorrhagic fever, and Ebola epidemic which have been seen recently negatively affect human health and life. Cihanoğlu Gülen (2018), on the other hand, states that epidemic diseases such as swine flu (H1N1), avian flu (H5N1) and AIDS have turned into a global risk, and they cause serious health problems with the effect of globalization. As a matter of fact, the COVID-19 pandemic that has been experienced in the world since the end of 2019 has left serious damage on personal and public health. Although its effect has decreased, the death cases from this disease continue and it still poses a threat to humanity.

The Coronavirus Disease-2019 (COVID-19) first appeared in China at the end of 2019, spread rapidly all over the world and affected people's lives negatively. In our country, the first case was seen in March 2020. The World Health Organization declared COVID-19 as a pandemic in March 2020 and defined it as a fatal disease that can be infected quickly and easily (Aslan, 2020; Bao, Sun, Meng, Shi, & Lu, 2020; Xu, Yu, Zhang, Luo, & Liu, 2020; Ministry of Health, 2020). COVID-19 has affected human life in many areas such as health, education, economy, tourism, etc. It has caused negative changes in family interactions and interpersonal communication, and limited people's lives to a large extent with its destructive effects (Balaban & Hanbay Tiryaki, 2021; Balcı, 2020; Cavlak, 2020; Çelik & Çak, 2021; Işık & Bahat, 2021; Önder, 2022). This pandemic causes a lack of motivation, psychological pressure, fear and anxiety with the effect of psycho-social problems. It still continues to threaten the humanity of the world spiritually, physically and socially (Ahorsu Lin, Imani, Safari, Griffiths, & Pakpour, 2020; Budak & Korkmaz, 2020; Duan & Zhu, 2020; Metin, Gürbey & Çevik, 2021; Olcay & Sakalli, 2022).

The COVID-19 pandemic process has caused psycho-social problems such as anxiety and fear among people due to the rapid transmission of the disease and death risk (Lin, 2020), many people have had difficulty in controlling their motivation and performance due to this excessive anxiety they experience and they have been affected mentally in the process (Boyraz, Güçlü, & İnan, 2021). If the fear of this disease continues among people, its damage to people may increase (Huang, Han, Luo, Ren, & Zhou, 2020). As a result of the long isolation during the pandemic process, there have been problems within families, and teachers and students have experienced negative emotions during the education process due to reasons such as fear of getting sick and worry about losing their relatives (Kavuk & Demirtaş, 2021). Even if the pandemic ends, it is predicted that its effects will continue in all areas of life, especially in education (Işık & Bahat, 2021). The biggest disaster of 2020 is undoubtedly the COVID-19 virus outbreak. In this process, the health system in many countries collapsed and the whole world experienced a nightmare. In order to prevent the transmission of this virus, all collective activities, especially education and training, were stopped and schools were closed gradually. In order to continue education and training activities, distance education was started, and each country implemented education practices within its own means (Yaman, 2021).

Before pandemics, distance education started with written sources such as letters and newspapers, and later it was implemented with tools such as television, computer and internet with the development of technology (Özbay, 2015). In this development process, some stages have been passed such as education via mail, television and radio broadcasting, open universities, education via teleconference, and education via internet technology (Göksel, 2015). In the last two decades, distance education and information technologies have been actively used, and online and offline technological developments have been used by the society for the benefit of people (Bayrak, Aydemir, & Karaman, 2017). Distance education is named as educational activities carried out by drawing on the advantages of technology (Özdemir, Çakıroğlu, Bayılmış, & Ekiz, 2004). It is an independent form of education in which course-specific materials are used and teachers and students are in different places far from each other (Uşun, 2006). In this context, it can be said that distance education is an educational activity that supports learning-teaching activities such as reinforcing by rewatching from the recording and lifelong learning, and where the learner and teacher do not come together face-to-face.

It is seen that distance education is necessary in order not to interrupt education and training in negative conditions such as epidemic diseases etc. Distance education can also provide some convenience in terms of content, space, and time. Thanks to the rapidly developing information and communication technologies, the spread of the Internet, the development of video and audio online education applications and distance education applications have become widespread (Kırık, 2014). Umurhan (2014) states that distance education has made it easier to reach inaccessible

individuals and diversified education and training activities. In distance education process, communication takes place with interactive technological tools since students, teachers and learning resources are independent of time and space (Balaman, 2018). According to Wallace (2009), distance education has some difficulties and risks for teachers and students who are accustomed to the face-to-face learning environment in the classroom. Among these problems, technological problems, environmental problems, software usability problem, decreased nonverbal communication can be given as some examples. For that reason, it is important to put more emphasis on the subjects being taught, to use intonation, to write, to manage time and technology in distance education. In addition, teachers and students should take courses on independent teaching and learning and be open to innovative thinking.

During the COVID-19 pandemic, learning losses were tried to be minimized, and all levels of education, from pre-school to higher education, included in the education process through distance education. In this process, distance education was carried out in Science and Art Centres (SACs) which are educational institutions where gifted students study.

In the regulation of special education services of the Ministry of National Education (MoNE), Science and Art Centre is defined as the institution which was founded to provide supportive education services to students who continue formal education institutions and who have special talents in mental, visual, artistic or musical abilities in order to improve their skills and enable them to use their capacities at the highest level. In the same regulation, special talented individual is defined as "an individual who learns faster than their peers, who is ahead in creativity, art, leadership capacity, who has special academic abilities, who can understand abstract ideas, who likes to act independently in his/her interests, and performs at a high level" (MNE, 2020, p. 1-2).

SACs aim to make gifted students aware of their talents and to provide them with an appropriate educational environment for the development of these talents. Programs are prepared and carried out in order to provide students with advanced knowledge and skills in order to conduct research and examination individually or in groups, to produce designs and models with new and original ideas according to their abilities under the guidance of their advisor teachers. Education and training activities to be held in SACs can be planned on weekdays and/or at weekends out of student's formal education hours (MNE, 2019).

Some problems have been experienced in the field of education during the COVID-19 pandemic process like the problems experienced in every sphere of life. Due to this pandemic in the world and in our country, some quarantine measures were taken. Within the scope of quarantine measures, distance education was commenced, obeying the mask-social distance-hygiene rules. In this process, teachers and students were primarily affected and they faced many positive or negative situations. In distance education process, the burden of gifted students, especially studying at the SACs, was more difficult than other students. The reason for this difficulty is that gifted students participated in distance education courses carried out both in their own formal schools and in SACs Since there are no separate course hours for SACs in distance education plan made by the MNE, the lessons of the centre overlapped with the lessons of the schools where students continue their formal education. This situation created a problem for gifted students and SACs had to make their own course plans for distance education.

In the current study, it is aimed to evaluate distance education process which was carried out due to the COVID-19 pandemic via gifted students and teachers' views at SACs. To this end, the advantages and disadvantages of distance education process, the problems experienced by teachers, the problems experienced by students, the technological problems and the problems caused by parents were tried to be determined. In the research, the notions such as SACs, gifted students and distance education were reviewed based on the literature, interviews, one of the qualitative research methods, were used, and the data were examined and tried to be presented in detail. It is hoped that the research will contribute to the literature, and students, teachers at SACs and students' parents in terms of evaluating the situations experienced in distance education process, revealing the problems, and suggesting solutions.

When the literature is examined, some studies investigating distance education process due to the COVID-19 pandemic at schools affiliated to the Ministry of National Education are as follows (Akdal & Yazicioglu, 2021; Apalı & Çulcu, 2021; Aykar & Yurdakal, 2021; Başaran, Doğan, Karaoğlu & Şahin, 2020; Can, 2020; Karakuş, Esendemir,

Ucuzsatar & Karacaoğlu, 2021; Karatay, Kaya & Başer, 2021; İnci Kuzu, 2020; Özdoğan & Berkant, 2020; Sığın, 2020; Ülger, 2021; Yılmaz Altuntaş, Başaran, Özeke & Yılmaz, 2020).

When the literature is examined, it is seen that there are few studies (Türksoy & Karabulut, 2020; Çıldır, 2020; Ceylan & Umdu Topsakal, 2021) evaluating the distance education process of gifted students studying at the SACs due to the COVID-19 outbreak. In their study in which they revealed the perceptions of gifted students on distance education based on the views of their parents, Türksoy & Karabulut (2020) found that the effect of pandemic on students' education process was negative, ineffective and insufficient. In the study conducted by Çıldır (2020), she identified the difficulties encountered in distance mathematics education of gifted students studying at secondary school. Ceylan & Umdu Topsakal (2021), on the other hand, discussed the views of teachers and gifted students regarding the application of differentiated science program in the COVID-19 distance education process.

When the studies are examined, no research has been found that reveals the holistic evaluation of the distance education process according to the views of teachers and gifted students in the COVID-19 pandemic process concerning SACs. This research is considered important as it is an original study.

Problem of Study

In this study, it is aimed to determine the perceptions of gifted students and their teachers about distance education applications, which have become a necessity during the COVID-19 pandemic period. The problem of the research is;

- How are the perceptions of gifted students and their teachers towards distance education during the pandemic period?

Sub-problems of the study are below;

- How are the opinions of gifted students and their teachers about **advantages and disadvantages** of distance education during the COVID-19 pandemic period?
- How are the opinions of gifted students and their teachers about **encountered problems** of distance education during the COVID-19 pandemic period?

Method

Research Model

In this study, case study, which is one of the qualitative research methods, was used. Qualitative research method was preferred in the research in order to better understand the emotions, thoughts and feelings of the participants in the process (Ekiz, 2003). Interview, observation and document analysis can be given as some examples of qualitative data collection methods. Qualitative research is the process of revealing perceptions and events in their natural environment in a holistic and realistic way (Yıldırım & Şimşek, 2013).

The experiences of the teachers and students participating in the research regarding the case were tried to be examined in detail. The case study is a method to examine a person, an environment, an event and a document in detail (Uzuner, 1999). The case study method is used when individuals, institutions and decision makers desire to explain a case that is thought to be complex by obtaining detailed information (Akar, 2016). In addition, in the case study approach, it is aimed to collect multiple data and make an in-depth analysis to collect systematic information about a limited situation or a system (Chmiliar, 2010). As a result, case study allows the researcher to systematically collect and understand information about an individual, a group, a social structure, an event or a phenomenon (Berg, 2001).

Study Group

The sample in the research consists of 14 teachers working in Nevşehir Halil İncekara Science and Art Center in 2021-2022 academic year, and 70 students who are registered and studying here. Teachers and students answered the interview questions in the study on a voluntary basis. Demographic information of the subjects is presented in Table 1.

Table 1. Demographic Information of the Teachers Participating in the Study

Teachers		n	%
Gender	Male	10	71.4
	Female	4	28.6
Graduation Status	Bachelor's Degree	5	35.8
	Master's Degree	9	64.2
Years of Experience	1-5	-	-
	6-10	1	7.1
	11-15	4	28.6
	16-20	5	35.7
	21-25	3	21.5
	26-30	1	7.1
	30 and over	-	-
Teacher	Total	14	100

In Table 1, when the gender of the teachers among the subjects is examined, it is seen that all 14 teachers, 4 female teachers (28.6%) and 10 male teachers (71.4%), participated in the research. When the graduation status of the teachers is examined, 5 teachers (35.8%) have bachelor's degree and 9 teachers (64.2%) have master's degree. It is seen that 64.2% of teachers at Science and Art Center (BİLSEM) have completed their postgraduate education. This can be interpreted as good in terms of quality. When the years of experience of the teachers are examined, It is seen that 1 teacher has 6-10 years (7.1%), 4 teachers have 11-15 years (28.6%), 5 teachers have 16-20 years (35.7%), 3 teachers have 21-25 years (21.5%), and 1 teacher has 26-30 years of experience (7.1%).

Table 2. Demographic Information of the Students Participating in the Study

Students		n	%
Gender	Male	30	42.9
	Female	40	57.1
Age	8	3	4.3
	9	4	5.7
	10	25	35.7
	11	21	30
	12	10	14.3
	13	7	10
Student	Total	70	100

In Table 2, when the gender of the students participating in the study is examined, there are 30 male (42.9%) and 40 female (57.1%) students. The ages of the students range from 8-13. When the age distribution of the students is examined, 3 students are at the age of 8 (4.3%), 4 students are at the age of 9 (5.7%), 25 students are at the age of 10 (35.7%), 21 students are at the age of 11 (30%), 10 students are at the age of 12 (14.3%) and 7 students are at the age of 13 (10%).

Data Collection Tools

In the study, a semi-structured interview form consisting of 6 questions was used to obtain the data. Interview, which is a qualitative research method, is a method used to reveal people's perspectives on facts and events, their feelings, thoughts, experiences, values and perceptions (Yıldırım & Şimşek, 2013). It includes the questions and topics that are planned to be asked to the individuals during the interview (Patton, 2005). The semi-structured interview method, on the other hand, does not have as strict rules as the structured interview method and is not as flexible as the unstructured interview method. Therefore, it allows flexibility for the researcher (Karasar, 2007; Yıldırım & Şimşek, 2013).

While developing the data collection tool, the relevant literature was reviewed, and the necessary resources were collected. While preparing the interview questions to be used in the research, the views of three teachers working at the SACs and an academician who is an expert in the subject area at university were taken in order to ensure the content validity and reliability, the relevant arrangements were made and the interview questions were finalized and the actual interviews were conducted. Later, the questions in the interview form were sent to the scientific research and publication ethics committee of the university, and the ethics committee permission was obtained with the number of meetings and decisions 2021.09.343.

Analysis of Data

The research was carried out in the period when distance education was ended and face-to-face education was started, thus, the lapse of time was prevented. Data were collected during the period when the distance education process due to the COVID-19 pandemic would be evaluated as a whole, and when the participants could remember the whole process. In the study, data were collected on a voluntary basis and the consent of the participants was granted. Convenient time for the teachers and the students who want to participate in the research were determined. Before the interviews, some explanations were given to the participants. Accordingly, it was stated in the interview form that the names of the participants would be kept confidential and coding would be used for teachers (T1,T2,... T14), for students (S1,S2, ... S70), and the privacy rights of the participants would be respected. It was explained to the participants that permissions were obtained from the relevant ethics committee for the study and that data would not be used anywhere other than the study. Efforts were made to create an environment in which the participants could respond comfortably, and care was taken not to influence the participants in the presence of the researcher.

The researcher met the participating teachers and students at the SACs outside of class hours when they were convenient, and interviews were held. Individual interviews with teachers and students took approximately 4 weeks and lasted an average of 20-30 minutes. During the interviews, the views expressed by the participants were written on the interview form prepared by the researcher in order to prevent data loss while the participants were talking. Before and during the interview, some explanations were made in order to remove the ambiguity when the participants needed regarding the questions in the interview form (Büyüköztürk, 2012), and questions were asked at the end so that they could answer the questions in more detail by making the necessary explanations. In semi-structured interviews, additional questions can be asked to deepen the participants' views that are not clear enough (Ersoy, 2014; Yıldırım & Şimşek, 2013). At the end of the interview, the credibility of the data was ensured by asking the participants to check their answers (Yıldırım & Şimşek, 2013).

In the study, descriptive analysis was used in the analysis of the data collected in order to reveal the existing case. The findings of the research were given in tables, and relevant explanations were made under each table, and they were interpreted and discussed in the results section. The descriptive approach is to explain, define, evaluate the investigated case in detail, and reveal the relationships among events or cases (Çepni, 2012). In descriptive approach, participants are asked to explain in detail about the research environment (Cresswell, 2005).

Descriptive analysis is carried out in certain stages: A framework is created for the analysis of the data obtained from the interview questions in the research. Then data are processed, organized and defined. Where necessary, it is supported by direct quotations. Finally, the findings are interpreted, and the cause-effect relationship is explained (Yıldırım & Şimşek, 2013). While the data obtained from the teachers and students through the interview questions were analyzed with descriptive analysis, importance was given to confidentiality by using coding for teachers (between T1-T14) and for students (between S1-S70), and reliability was ensured by including direct quotations of the participants.

Findings

The views of teachers and students on the advantages of distance education during the COVID-19 pandemic period are given in Table 3.

Table 3. Views of Teachers and Students on the Advantages of Distance Education

Teacher	f	%	Student	f	%
-Increase in competence in technology usage	5	35.7	-There is no advantage	39	55.7
-Elimination of the space problem	5	35.7	-Saving time	10	14.3
-Protection from the pandemic	4	28.6	-Accessibility	7	10
-Elimination of time problem	4	28.6	-Protection from diseases	6	8.6
-Elimination of transportation problem	3	21.4	-Increase in technology availability	4	5.7
-Increase in the attendance rate of students with physical disabilities	1	7.1	-Increase in the rate of course attendance	1	1.4
-Increase in the number of students attending the course	1	7.1	-Less homework	1	1.4
			- Less writing	1	1.4
			- Not Wearing a Mask	1	1.4

When the views of the teachers participating in the research on the advantages of distance education are examined in Table 3; It is seen that there are 5 teachers (35.7%) stating that there was an increase in competence in their technology usage; 5 teachers (35.7%) expressing the elimination of the space problem; 4 teachers (28.6%) stating that it ensured the protection from the pandemic; 4 teachers (28.6%) stating that the time problem was eliminated; 3 teachers (21.4%) stating that the transportation problem was eliminated; 1 teacher (7.1%) expressing an increase in the attendance of students with physical disabilities and 1 teacher (7.1%) indicating an increase in the number of students attending the course. Some teachers' direct statements regarding the advantages of distance education are given below:

> T3: *"Distance education has some advantages. The problem of place and time has been reduced. It provides the opportunity to give education anywhere and at any time of the day. It provides equality of opportunity in education by making technological opportunities available to everyone".*

> T5: *"It provided advantages in terms of an increase in teachers' ability to use technology, their competence in preparing and using digital materials, and accessing course content on the Internet".*

In Table 3, when the views of the students participating in the study on the advantages of distance education are examined, 39 students (55.7%) stated that there is no advantage of distance education. The number of students who think that distance education has advantageous aspects is 31 (44.3%). 10 students stated that (14.3%) it saved time, 7 students (10%) stated that it provided accessibility, 6 students (8.6%) stated that they were protected from diseases; and 4 students (5.7%) stated that there was an increase in technology availability. On the other hand, 1 student (1.4%) stated that it increased the rate of course attendance, 1 student (1.4%) stated that there was less homework, 1 student (1.4%) stated that they wrote less, and 1 student (1.4%) stated that they did not have to wear a mask. Some students' direct statements regarding the advantages of distance education are given below:

> S48: *"I don't have to come to school by car".*

> S58: *"I have more time left after distance education. I can read books and take tests whenever I want".*

> S65: *"I can participate in distance education from anywhere".*

> S66: *"I do not think that distance education has advantages".*

The views of teachers and students regarding the disadvantages of distance education during the COVID-19 pandemic are given in Table 4:

Table 4. Views of Teachers and Students on the Disadvantages of Distance Education

Teacher	f	%	Student	f	%
-Problems in activities that require practice	6	42.8	-Having difficulty in understanding the subjects	18	25.7
-Lack of technological infrastructure	6	42.8	-Limited socialization	17	24.2
-Increase in communication problems	4	28.5	-Troubles caused by internet connection problems	14	20
-Increase in physical problems	2	14.2	-Increase in health problems	14	20
-Overlapping the student's own school lessons and BİLSEM's lessons	2	14.2	-There is no disadvantage	11	15.7
-Limited assessment and evaluation	1	7.1	-Limited assessment and evaluation	1	1.4

According to the views of the teachers participating in the study on the disadvantages of distance education in Table 4, 6 teachers stated that the problems occured mostly in activities that require practice (42.8%), 6 teachers stated that the technological infrastructure was insufficient (42.8%), 4 teachers stated that it increased communication problems (28.5%). On the other hand, it is seen that 2 teachers (14.2%) stated that there was an increase in physical problems, 2 teachers (14.2%) stated that students' own school lessons overlapped with the school lessons of BİLSEM, and 1 teacher (7.1%) stated that assessment and evaluation were limited. Some teachers' direct statements regarding the disadvantages of distance education are given below.

> *T2: "Distance education has some disadvantages. Some problems occurred in assessment and evaluation. It limited applied education. The lack of infrastructure and technology caused problems. Connection problems, not being able to communicate well, etc".*

> *T5: "Accessibility is difficult for students in regions where the technical infrastructure is insufficient. This has brought about inequality of opportunity. Another disadvantage is that the programs used in distance education are not reliable. In addition, students and teachers who spend long hours in front of the screen have psychological and physiological problems."*

> *T6: "The fact that some of the students could not access to computers, internet, etc. created a problem. It caused communication problems. Problems were encountered mostly in activities that required practice".*

When the views of the students participating in the research on the disadvantages of distance education are examined in Table 4; 11 students (15.7%) stated that distance education is not disadvantageous while 59 students (84.2%) mentioned some disadvantages of distance education. Accordingly, as for the disadvantages of distance education, students listed the following factors: Having difficulty in understanding the subjects (18 students, 25.7%); limited socialization (17 students, 24.2%); excessive troubles caused by internet connection problems (14 students, 20%); increase in health problems (14 students, 20%); and limited assessment and evaluation (1 student, 1.4%). Some students' direct statements regarding the disadvantages of distance education are given below:

> *S36: "We could not meet our friends. I had the Internet connection problems during the lessons".*

> *S62: "My eyes are tired, I miss my friends and my teacher".*

> *S66: "I had difficulty in understanding the subjects and the lessons were not beneficial".*

> *S67: "I cannot play games with my friends. Also, I cannot fully understand the lessons".*

Views on the problems experienced between teachers and students in distance education during the COVID-19 pandemic are given in Table 5:

Table 5. Views on the Problems Between Teachers and Students in Distance Education

Teacher	f	%	Student	f	%
-Decrease in the rate of course attendance	2	14.2	-I had no problems	60	85.7
-Not attending the course on time	2	14.2	- Inability to express yourself	5	7.1
-Failure to conduct applied courses	2	14.2	-Connection-related problems	5	7.1
-Disciplinary problems	1	7.1			
-Communication problems	1	7.1			
-No problems	6	42.8			

When the views of the teachers participating in the research on the problems experienced between teachers and students in distance education are examined in Table 5; 6 teachers (42.8%) stated that they did not have any problems, and 8 teachers (57.2%) stated that they had problems. Two of the teachers (14.2%) stated that there was a decrease in the number of students attending the courses, 2 of them (14.2%) stated that students did not attend the courses on time, 2 of them (14.2%) stated that students could not receive applied courses, 1 of them (7.1 %) stated that they had disciplinary problems, and 1 of them (7.1%) stated that they had communication problems. The direct statements of some teachers regarding the problems experienced between teachers and students in distance education are given below:

> T6: "The student who did not want to attend the course left the online class at any time and gave the excuse that he had a connection problem in order not to answer the questions".

> T10: "I did not have any problems with my students. Although the course hours are the same as the face-to-face course hours, I think the online course hours are not enough".

> T11: "I didn't have any problems with my students in general, but the rate of course attendance was low".

When the views of the students participating in the research on the problems experienced between teachers and students in distance education are examined in Table 5, 60 students (85.7%) who participated in the research stated that they did not have any problems in the distance education process while 10 students (14.3) stated that they had problems. 5 of the students (7.1%) stated that they were unable to express themselves, and 5 of them (7.1%) stated that they had problems with the Internet connection. The direct statements of some students regarding the problems experienced between teachers and students in distance education are given below:

> S26: "Due to my teacher's internet problem, sometimes his voice and image disappeared".

> S28: "I had a problem with my teacher. Because when I raise my hand and ask for the right to speak, he gives the right to speak to my friend who is not interested in the lesson instead of me. In some special cases, when I turn off my camera, my teacher perceives this as an excuse".

> S30: "My teacher did not give as much right to speak in distance education as in face-to-face education".

The views of teachers and students regarding the technological problems experienced in distance education during the COVID-19 pandemic period are given in Table 6:

Table 6. *Views of Teachers and Students on Technological Problems in Distance Education*

Teacher	f	%	Student	f	%
-Internet connection problems	7	50	-Internet connection-related problems	28	40
-Lack of technological equipment	7	50	-I had no problems	22	31.4
			-Lack of computer hardware	12	17.1
			-Insufficient internet capacity	8	11.4

When we examine the views of the teachers participating in the research on the technological problems experienced in distance education in Table 6; 7 teachers (50%) stated that they had internet connection problems and 7 teachers (50%) stated that they had a lack of technological equipment. The direct statements of some teachers regarding the technological problems experienced in distance education are given below:

> *T1: "Due to the heavy use of the Internet, connection problems occurred from time to time. There was a lack of technological equipment for several students or teachers".*

> *T5: "I had problems such as disconnecting from the Internet and not being able to connect again due to the software program we used".*

> *T11: "I would definitely say that we had problems. Sometimes our internet quota was not enough. Sometimes the number of computers at home was not enough for those who could benefit from distance education. We had to wait for each other, or we had to connect the Internet with mobile phone. I had health problems due to excessive computer use".*

When the views of the students participating in the research on the technological problems experienced in the distance education process are examined in Table 6, 22 students (31.4%) stated that they did not experience technological problems in distance education, while 48 students (68.6%) stated that they had problems. 28 students (40%) stated that they had problems with the Internet connection, 12 students (17.1%) stated that they had problems such as lack of computer hardware and 8 students (11.4%) stated that they had problems such as insufficient internet capacity. Some students' direct statements in terms of the technological problems experienced in distance education are given below:

> *S1: "I had problems. The fact that the mobile phone sometimes had poor reception and the Internet connection at our home was established late posed big problems. There was not enough technological equipment at home and it was not enough for us".*

> *S12: "I had connection problems many times during the online lessons. I had difficulty in understanding the subjects".*

> *S21: "The online sessions were sometimes frozen and I could not understand the lesson. I waited half an hour to attend online classes via Zoom and I was late for the class".*

> *S20: "Yes, I had problems. At the time the lesson started, sometimes my computer did not turn on and I missed the lesson".*

The views of teachers and students regarding the problems caused by parents in distance education during the COVID-19 pandemic are given in Table 7:

Table 7. Views of Teachers and Students on the Problems Caused by Parents in Distance Education

Teacher	f	%	Student	f	%
-Parent's interference in the lesson	5	35.7	-I had no problems	57	81.4
-Lack of communication	4	28.5	-Not providing a suitable environment	6	8.5
-I had no problems	5	35.7	-Excessive care	4	5.7
			-Excessive technology usage	3	4.2

When the views of the teachers participating in the research on the problems they experienced with students' parents in distance education are examined, there are 5 teachers (35.7%) who stated that they did not have problems with students' parents, whereas there are 9 teachers (64.3%) who had problems. 5 of the teachers (35.7%) stated that the parents interfered in the lesson (35.7%), while 4 teachers (28.5%) stated that they had a lack of communication with the

parents. The direct statements of some teachers regarding the problems caused by parents in distance education are given below:

> *T1: "Parents generally attended the lessons as spectators in the background. In this case, they became aware of every positive and negative event in the lessons, and they influenced the students".*

> *T5: "There were times that the parents interfered in the students during distance education, albeit a little".*

> *T6: "Parents wanted to interfere in the lessons. They constantly listened to the lectures and the privacy of the lecture was lost. In addition, the voices of other people in the house negatively affected the motivation and the flow in the lessons".*

In Table 7, when the views of the students participating in the research on the problems they experience with their parents in distance education are examined, 57 of the students (81.4%) stated that they did not have any problems with their parents in distance education, while 13 of them (18.6%) stated that they had problems with their parents. 6 of the students (8.5%) participating in the research stated that they had problems with their parents due to the lack of a suitable environment, 4 of them (5.7%) had problems due to excessive care by their parents, and 3 of them (4.2%) had problems due to excessive technology usage. The direct statements of some students with regard to the problems they experience with their parents in distance education are given below:

> *S28: "I had problems with my family during this period. My brother usually came near me during the lessons. My mother didn't take my brother away from me because she had some housework".*

> *S9: "It bothered me when my family spoke while my microphone was on during the lessons. Also, my mother believed that I was playing games all the time and we had a problem".*

> *S20: "Yes, I had some problems. During the distance education process, I had to study many subjects which I did not understand with my family. I didn't like this situation."*

Discussion and Conclusion

According to the results of the study, teachers working at SACs listed the advantages of distance education as an increase in competence in technology usage, the elimination of the space problem, protection from the pandemic, the elimination of time problem, the elimination of transportation problem, an increase in the attendance rate of students with physical disabilities, and an increase in the number of students attending the course. In this context, teachers had to use technology in their lessons in order to teach effectively in the distance education process, and there was an increase in their competence in technology usage. Supporting the results of the current study, Gökmen, Duman & Horzum (2016), in their study, stated that individuals benefited from the distance education process with the increase in the use of mobile phone, the Internet and computer with the technological development; Erdem (2021), on the other hand, stated that teachers, students, parents recognized a new learning-teaching process and gained the ability to work with technology by recognizing and using technological tools during the distance education process throughout the pandemic. Similar to the results of the present research, the advantages of distance education in Sığın's (2020) study include the elimination of transportation problems, an increase in the number of students attending the course, saving more time, protection from pandemics and providing convenience to students with physical disabilities. UNESCO requested that measures be taken especially for disadvantaged groups in order to reduce the negative situations experienced in the distance education process and announced that it would support countries in terms of sustaining the distance education process (Can, 2020). Demir (2014), on the other hand, states in his study that distance education eliminates the problem of space and time and minimizes the problems encountered in education in terms of time, space and cost.

About 56% of the gifted students studying at SACs think that distance education is not advantageous. In addition, according to the students who think that there are advantageous aspects of distance education, its advantages are saving time, accessibility, protection from diseases, increase in technology availability, increase in the rate of course attendance,

less homework, less writing, and no obligation to wear a mask. Supporting the results of the research, in Apalı & Çulcu's (2021) study, all participants stated that distance education was inefficient and face-to-face education was more efficient. Kırık's (2014) study emphasizes that distance education is important for students to continue their education by eliminating the time and space problems. On the other hand, in Başaran, Doğan, Karaoğlu, & Şahin's (2020) study, students listed the advantages of distance education as flexibility, repetition/reinforcement, protection of health, no homework/exam, and no obligation to attend the course. Sarıtaş, Şahin & Çatalbaş's (2019) study investigating the views of gifted students and their parents revealed that students had difficulty in reaching BİLSEMs. Students stated that they had difficulty in reaching the center and managed to get there only with the support of their parents or by public transportation on weekdays or at weekends. Distance education eliminates the transportation problem and students and parents benefit it.

The teachers working at SACs stated that the most important disadvantages of distance education are the problems in activities that require practice and the lack of technological infrastructure. In addition, an increase in physical problems, communication problems, overlapping the student's own school lessons and SACs's lessons, and the limited assessment and evaluation are among the disadvantages identified in the distance education process. In studies supporting the results of this study (Demir, 2014; Özgöl Sarıkaya & Öztürk, 2017), it was concluded that distance education is not suitable for applied courses. In their study, teachers stated that only theoretical knowledge is included in distance education courses, the process is monotonous and the communication with the students is insufficient. The disadvantages of distance education are listed as no obligation to attend the courses, lack of activities that require practice in lessons, lack of experience of students in this process, problems experienced in asking questions and giving feedback about incomprehensible subjects, and technological deficiencies.

Only a minority of the gifted students studying at SACs, about 15% of them, think that distance education is not disadvantageous, whereas the vast majority, about 85%, think that distance education is disadvantageous. The most important problem faced by students who think that distance education has disadvantages is that they have difficulty in understanding and socializing. In addition, the Internet connection problems, an increase in health problems, limited assessment and evaluation are some other disadvantages in the distance education process. In line with the findings of the current research, there are many studies that reveal the limitations of distance education. In Sirem & Baş's (2020) study, the most difficult case for students in the distance education process due to the COVID-19 epidemic was to have difficulty in understanding and not reviewing the subjects. In the research conducted by Seyhan (2021), it was determined that pre-service teachers had difficulties in getting materials, accessing the Internet, providing a learning environment, and that students had learning difficulties in distance education. In the study conducted by Aktan Acar, Erbaş & Eryaman (2021), the views of pre-school teachers on distance education were generally negative. The study revealed that children had problems in concentrating on lessons, and there was the lack of digital tools, difficulties in following children's development and the lack of socialization. Çıldır (2020) states that students' intrinsic motivation should be boosted by strengthening communication and they should be encouraged to participate in national or international live events and competitions. Ceylan & Umdu Topsakal (2021) draw attention to the importance of students' characteristics, allowing progress at an individual pace, being well organized, continuous communication, evaluation and giving feedback in the distance education process.

The majority of the teachers working at SACs, about 57% of them, stated that there are problems between teachers and students in distance education. Among these problems are a decrease in the number of students attending the courses, not being able to attend the courses on time, not being able to do activities that require practice, and discipline and communication problems. Supporting the results of the current research, in their study, Sarıtaş, Şahin & Çatalbaş (2019) found that there were some problems in the planning of course hours at SACs, the lessons at formal education schools and SACs classes were tiring for students, students did not attend the classes enough, there were negative situations in the Internet connections and students did not care about the lessons. Ceylan & Umdu Topsakal (2021), on the other hand, stated that there were technical problems due to the education environment, the lack of communication and motivation problems stemming from students, and timing problems stemming from the

curriculum in the distance education process. In this context, the inability of the students at SACs to attend the lessons on time or to attend the lessons less may be due to different reasons. During the distance education process in the COVID-19 pandemic period, the Ministry of National Education developed the Education Information Network (EBA) platform, and certain hours of the day for all levels of formal education were planned. However, the Ministry of National Education did not make any arrangements or plans regarding distance education courses at SACs. While formal education schools and SACs followed their course plans, students of SACs may have preferred not to attend SACs classes in order to attend the classes at their own school since some schools do not comply with this plan. For that reason, students may not have been able to attend SACs's classes during the overlapping class hours or attend the classes on time. This situation may have caused communication and discipline problems, especially the inability to do the activities that require practice at a sufficient level. As a matter of fact, Türksoy & Karabulut (2020) state that additional content should be created in EBA during the distance education process and there is a need for activities to meet social needs of students by taking into account individual differences.

In terms of the problems experienced between teachers and students in distance education, gifted students studying at the SACs stated that they experience problems such as inability to express themselves and the Internet connection. In their research, Özyürek, Begde, Yavuz & Özkan (2016) stated that disconnection from the Internet created an obstacle for students to attend classes. According to Ceylan & Umdu Topsakal (2021), students' suffering from exhaustion as a result of being exposed to intensive course programs in distance education may cause low motivation in the education process.

As for the technological problems experienced in distance education, teachers working at the SACs stated that half of the participants had the Internet connection problems, while the other half had the problem of technological hardware inadequacy. About 68% of the gifted students studying at the SACs experienced technological problems in distance education. Among the technological problems experienced by students are the Internet connection problems, lack of computer hardware and insufficient Internet capacity as some examples. There are many research results (Apalı & Çulcu, 2021; Can, 2020; Özdoğan & Berkant, 2020; Ülger, 2021) that support the results of this study: Some technical problems are listed as poor information technology infrastructures, inadequacy of technological equipment, poor Internet connections, limited Internet access, and lack of the Internet and computers in distance education provided during the pandemic process. This situation prevents students from reconcentrating on the lesson, causes them to experience stress (Apalı & Çulcu, 2021), and health problems occur in the distance education process (Karatay, Kaya, & Başer, 2021; Özdoğan & Berkant, 2020).

The teachers working at the SACs, about 64% of them, think that they have problems with students' parents in distance education. Teachers experienced some problems due to parents' interference in lessons and lack of communication. In the distance education process, teachers also faced other problems with parents. The attendance of some parents with their students in distance education courses, their lack of interest in this process, and some parents' failure to provide a suitable course environment for students can be given as some examples of other problems. The majority of the gifted students studying at the SACs, approximately 81% of them, did not have any problems with their parents in distance education. Students who had problems with their parents, on the other hand, had some problems due to the lack of a suitable environment, excessive care and excessive technology usage.

Similar to the results of this research, Aykar & Yurdakal (2021), according to the results of their study, revealed that the attitudes and behaviours of the families in this period caused negative effects on the students and put pressure on them. In their study, Karakuş, Esendemir, Ucuzsatar & Karacaoğlu (2021) found that parents and students could not adapt to the distance education process, and even that students' spending more time with technological tools in the distance education process could be a problem for their parents. According to the study results of İnci Kuzu (2020), parents spent more time with students during the distance education process, and even attended the classes with their children. It was concluded that this excessive care affected students negatively.

Recommendations

According to the results of the present study, the following recommendations can be made:

➢ In order to eliminate the problems experienced in distance education, especially in applied education, new software programs should be developed, and they should be used in virtual environments.

➢ In order to increase the quality of the distance education process, in-service activities for teachers should be organized and the programs that can be used in this process should be introduced.

➢ Infrastructure and superstructure services and the Internet network required for better distance education should be strengthened and expanded.

➢ In order to support students with insufficient technological equipment, functional and fully equipped local distance education centres should be established in certain areas and offered to the service of these students.

➢ In order to minimize communication problems in distance education, Whatsapp Web and Web 2.0 tools that enable cooperation and working together should be used.

➢ The overlap between the course plans of the SACs and the school course plans in which students attend their formal education should be prevented. For this, it can be possible if the Provincial/District Directorates of National Education provide the necessary cooperation and coordination and plan the distance education process together.

➢ In order to prevent absenteeism and to avoid disciplinary problems in distance education, a certain amount of compulsory attendance must be applied.

➢ While planning the distance education process, it is important to keep the course hours short and to take breaks at certain time intervals. Thus, boredom from classes can be eliminated and health problems can be prevented.

➢ Information can be provided, trainings can be given, seminars and programs can be organized according to the needs of teachers, students and students' parents at BİLSEM in order to carry out a more effective distance education process.

Limitations of Study

The research is limited to Nevşehir Halil İncekara Science and Art Center school.

Acknowledgement

Biodata of Authors

Assoc. Prof. Dr. **Vedat Aktepe** was born in 1970 in the Kozaklı district of Nevşehir. He received his primary and secondary education from Kozaklı Kalecik Village (1984), high school education from Kayseri High School (1987), and his undergraduate education from Gazi University Kırşehir Faculty of Education (1993). He graduated from Gazi University, Graduate School of Educational Sciences, Department of Primary School Education (2010) and received the title of "doctor" after successfully receiving his master's degree (2004) at Selçuk University, Institute of Social Sciences, Department of Educational Sciences. In 1994, he started his professional life as a primary school teacher at Amasya Taşova Asagi Barakli Primary School. Since 2012, he has been working as a lecturer in the Faculty of Education, Department of Elementary Education- Primary Education at Nevşehir Hacı Bektaş Veli University. He continues his academic studies in the fields of teacher training, social studies, life science and values education.

Gülüzar Ergin was born in Nevşehir in 1982. She is a teacher for gifted students and science expert. She received her primary school education from İncekaralar Primary School (1994), secondary school education from Yunus Emre Secondary School (1997), high school education from 2000 Evler High School (2000), undergraduate education from Selçuk University Faculty of Education (2004) and graduate education from Selçuk University Social Sciences Institute (2007). She started her professional life as a primary school teacher in Bayburt in 2004, and worked as a primary school teacher at Nevşehir Acıgöl (2005-2010) and Nevşehir Halil İncekara Science and Art Center (BILSEM) (2010-2013). In 2013, she passed the deputy principal exam held by the Ministry of National Education and became the Deputy Principal at Nevşehir Güzelyurt Turgut Akdevelioğlu Primary School. Since 2014, he has been working as the school principal of Nevşehir İncekaralar Primary School.

Leyla Aktepe was born in Kırşehir in 1970. She is a teacher for gifted students and science expert. She received her primary school education from Kırşehir Cumhuriyet Primary School (1981), secondary school education from Cacabey Secondary School (1984), high school education from Kırşehir High School (1987), undergraduate education from Gazi University Faculty of Education (1993) and her graduate education from Nevşehir Hacı Bektaş Veli University Social Sciences Institute (2020). She started her professional career as a primary school teacher in Yozgat- Şefaatli in 1995, and worked as a science teacher in Kırşehir Kaman (1998-2001), at Borsa (2001-2006) and Science and Art Center (BILSEM) (2006-2013). She worked as a chemistry teacher at Nevşehir Vocational and Technical Anatolian High School (2014-2019). Since 2020, she has been working as a chemistry teacher at Nevşehir Halil İncekara Science and Art Center.

Ahmet Emre Ergin was born in Konya in 1982. He is a teacher for gifted students and science expert.He received his primary education from Mahmut Şevket Paşa (1994), secondary school education from Mixed-Sex Secondary School (1997), high school education from Konya High School (2000), his undergraduate education from Selçuk University Faculty of Education (2004) and his graduate education from Selçuk University Social Sciences Institute (2007).He started his professional life as a primary school teacher in Konya Kulu in 2005, and worked as a primary school teacher at Nevşehir Acıgöl (2005-2010), Nevşehir Halil İncekara Science and Art Center (BILSEM) (2010-2013). In 2013, he passed the deputy principal exam held by the Ministry of National Education and became the Deputy Principal at Nevşehir Sulusaray Primary School. Since 2014, he has been working as the principal of the Science and Art Center.

References

Ahorsu, D.K., Lin, C.Y., Imani, V., Safari, M., Griffiths, M.D., & Pakpour, A.H. (2020). The Fear of COVID-19 Scale: Development and initial validation.*International Journal of Mental Health and Addiction.* (2022)20, 1537-1545. https://doi.org/10.1007/ s11469-020-00270-8.

Akar, H. (2016). Durum çalışması [Case Study]. A.Saban ve A.Ersoy (Ed.), *Eğitimde nitel araştırma desenleri* [Qualitative research designs in education] *(111-149).* Ankara: Anı Yayıncılık.

Akdal, D. & Yazicioglu, T. (2021). An analysis of the educational problems experiencedby children with cerebral palsy in preschool education during the COVID-19 pandemic process based on the parental views, *International Journal of Education Technologyand Scientific Researches*, 6(16), 2131-2165. http://dx.doi.org/10.35826/ijetsar.394

Aktan Acar, E., Erbaş, Y.H. & Eryaman, M.Y. (2021). Okul öncesi öğretmenlerinin COVID-19 pandemi sürecinde uzaktan eğitime ilişkin görüşlerinin incelenmesi [An examination of preschool teachers' opinions towards the COVID-19 pandemic process]. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi (AUAd),* 7(4), 31-54. https://doi.org/10.51948/auad.979726

Apalı, A. & Çulcu T. (2021). Lisansüstü öğrencilerin COVID-19 döneminde yaşadıkları stres kaynakları: Muhasebe ve finansal yönetim öğrencileri üzerine nitel bir çalışma [Sources of stress experienced by graduate students in the period of COVID-19: A qualitative study on accounting and financial management students]. *Uluslararası İşletme, Ekonomi ve Yönetim Perspektifleri Dergisi,* 6(5), 624-641. https://doi.org/10.29228/ijbemp.52684

Aslan, R. (2020). Tarihten günümüze epidemiler, pandemiler ve COVID-19 [Epidemics, pandemics and COVID-19 from past to the present]. *Ayrıntı Dergisi,* 8(85), 35-41.

Aykar, A.N. & Yurdakal, İ.H. (2021). Erken çocukluk öğretmenlerinin acil uzaktan eğitime ilişkin görüşleri [Early childhood teachers' views on emergency remote teaching (ERT)]. *Temel Eğitim Dergisi / Journal of Primary Education*, 3(2), 6-14. https://doi.org/10.52105/temelegitim.3.2.1

Balaban, F., & Hanbay Tiryaki, S. (2021). Corona virüs (COVID-19) nedeniyle mecburi yürütülen uzaktan eğitim hakkında öğretmen görüşleri [The opinions of teachers about compulsory distance education due to corona virus (COVID-19)]. *İnsan ve Toplum Bilimleri Araştırmaları Dergisi,* 10(1), 52-84.

Balaman, F. (2018). Web tabanlı uzaktan eğitim ile geleneksel eğitimin internet programcılığı 2 dersi kapsamında karşılaştırılması [The comparison of web-based distance education and traditional education in internet programming 2 class]. *İnsan ve Toplum Bilimleri Araştırmaları Dergisi*, 7(2), 1173-1200.

Balcı, A. (2020). In COVID-19 special the effect of pandemics on education. *International Journal of Leadership Studies: Theory and Practice.* 3(3), 75-85.

Bao, Y., Sun, Y., Meng, S., Shi, J., & Lu, L. (2020). 2019-nCoV epidemic: Address mental health care to empower society. *The Lancet,* 395(10224), e37-e38. https://doi.org/10.1016/ S0140-6736(20)30309-3

Başaran, M., Doğan, E., Karaoğlu, E. ve Şahin, E. (2020). Koronavirüs (COVID-19) pandemi sürecinin getirisi olan uzaktan eğitimin etkililiği üzerine bir çalışma [A study on effectiveness of distance education, as a return of coronavirus (COVID-19) pandemıc process]. *Academia Eğitim Araştırmaları Dergisi,* 5(2), 368-397.

Bayrak, M., Aydemir, M. & Karaman, S. (2017). Uzaktan eğitim öğrencilerinin öğrenme stilleri ve doyum düzeylerinin incelenmesi [An investigation of the learning styles and the satisfaction levels of the distance education students]. *Çukurova Üniversitesi Eğitim Fakültesi Dergisi,* 46(1), 231-263. https://doi.org/10.14812/cuefd.310022

Berg, B.L. (2001). *Qualitative research methods for the social sciences* (4th ed.). Boston, MA: Allyn & Bacon

Boyraz, H. Güçlü, M. & İnan S. (2021). Uzaktan eğitim sürecinde özel yetenekli lise öğrencilerinin öz düzenleme kapasitesitelerinin incelenmesi [Examining the self-regulatory capacity of special skilled high school students in the distance education process]. *Erciyes Akademi*, 35(2), 460-472. https://doi.org/10.48070/erciyesakademi.929766

Budak, F. & Korkmaz, Ş. (2020). COVID-19 pandemi sürecine yönelik genel bir değerlendirme: Türkiye örneği [An overall evaluatıon for the COVID-19 pandemıc process: The case of Turkey]. *Sosyal Araştırmalar ve Yönetim Dergisi*, (1), 62-79. https://doi.org/10.35375/sayod.738657

Büyüköztürk, Ş. (2012). *Sosyal bilimler için veri analizi el kitabı* [Manual of data analysis for social sciences]. Ankara: Pegem Akademi Yayıncılık.

Can, E. (2020). Coronavirüs (COVID-19) pandemisi ve pedagojik yansımaları: Türkiye'de açık ve uzaktan eğitim uygulamaları [Coronavirus (COVID-19) pandemic and its pedagogical implications: Open and distance education applications in Turkey]. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi (AUAd),* 6(2), 11-53.

Cavlak, H. (2020). COVID-19 pandemisinin finansal raporlama üzerindeki olası etkileri: Bist 100 endeksi'ndeki işletmelerin ara dönem finansal raporlarının incelenmesi [Possible effects of COVID-19 pandemic on financial reporting: Investigation of interim financial reports of companies listed on Bist 100 index]. *Gaziantep Unıversıty Journal Of Socıal Scıences* (Special Issue on COVID-19), 19, 143-168.

Ceylan, Ö., & Umdu Topsakal, Ü. (2021). Teachers' and Gifted Students' Views Regarding the Implementation of the DSC in the COVID-19 Distance Education Process. *Mimbar Sekolah Dasar*, 8(2), 114-132. https://doi.org/10.53400/mimbar-sd.v8i2.32474.

Chmiliar, l. (2010). Multiple-case designs. In A. J. Mills, G. Eurepas & E. Wiebe (Eds.), *Encyclopedia of case study research* (p.582-583). USA: SAGE Publications.

Cihanoğlu Gülen, G. (2018). *İşlevsel bir bütünleşme alanı olarak küresel sağlık ve sağlık politikaları* [Global health and health diplomacy as a functional integration area]. (Unpublished Master's Thesis), Ankara Üniversitesi, Ankara.

Çelik, Ş. & Çak, E. (2021). The effect of the COVID-19 pandemia process on the family. *Gevher Nesibe Journal of Medical & Health Sciences,* 6(11), 43-49. https://doi.org/10.46648/gnj.185

Çıldır, M. (2020). About distance mathematics education of gifted students studying at secondary school. S. Idin (Ed.), *Research highlights in education and science (p.142-152),* ISRES Publishing.

Cresswell, J.W. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research.* (Second Edition). Boston: Pearson Education Inc.

Çepni, S. (2012). *Araştırma ve proje çalışmalarına giriş* (6. Baskı) [Introduction to research and project works (6th Edition)]. Trabzon: Celepler Matbaacılık.

Demir, E. (2014). Uzaktan eğitime genel bir bakış [Overview of distance education]. *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi,* 39, 203-211.

Duan, L. & Zhu, G. (2020). Psychological interventions for people affected by the COVID-19 epidemic. *The Lancet,* 7(4), 300-302. https://doi.org/10.1016/ S2215-0366(20)30073-0

Ekiz, D. (2003). *Eğitimde araştırma yöntem ve metotlarına giriş* [Introduction to research designs and methods in education]. Ankara: Anı Yayıncılık.

Erdem, C. (2021). Problems, transformations, application examples and detections for gifted students in the Polish education system in the COVID-19 process. *Journal for the Education of Gifted Young Scientists*, 9(1), 37-45. https://doi.org/10.17478/jegys.864104

Ersoy, A. (2014). İnternet kaynaklarından intihal yaptığımın farkında değildim: Bir olgu bilim araştırması [I was not aware I plagiarized from online resources: A phenomenological research]. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi,* 35(1), 47-60.

Gökmen, Ö.F., Duman, İ. & Horzum, M.B. (2016). Uzaktan eğitimde kuramlar, değişimler ve yeni yönelimler [Theories, changes and new directions in distance education]. *Açıköğretim Uygulamaları ve Araştırma Dergisi (AUAd)*, 2(3), 29-51.

Göksel, N. (2015). Uzaktan eğitim: Çevrimiçi öğrenmede sistem yaklaşımı [Distance Education: A Systems View of Online Learning]. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi (AUAd)*, 1(1), 129-138.

Huang, J.Z., Han, M.F., Luo, T.D., Ren, A.K. & Zhou, X.P. (2020). Mental health survey of 230 medical staff in a tertiary infectious disease hospital for COVID-19. *Chinese Journal Of İndustrial Hygiene And Occupational Diseases,* 38(3), 192-195. https://doi.org/10.3760/cma.j.cn121094-20200219-00063.

Karakuş, N., Esendemir, N., Ucuzsatar, N. & Karacaoğlu, M.Ö. (2021). Türkçe dersleri özelinde uzaktan eğitim hakkında veli görüşleri [Distance education from parents' perspectives : A study on Turkish lessons]. *Ana Dili Eğitimi Dergisi*, 9(3), 993-1011.

Karasar, N. (2007). *Bilimsel araştırma yöntemi* (20. Baskı) [Scientific research method (20th Edition)]. Ankara: Nobel Yayın Dağıtım.

Karatay, H., Kaya, S. & Başer, D. (2021). Türkçenin yabancı dil olarak öğretiminde uzaktan eğitime yönelik öğrenci görüşleri [Student views on distance education in teaching Turkish as a foreign language]. *RumeliDE Dil ve Edebiyat Araştırmaları Dergisi*, (24), 223-232. https://doi.org/10.29000/rumelide.995286

Kavuk, E., & Demirtaş, H. (2021). COVID-19 pandemisi sürecinde öğretmenlerin uzaktan eğitimde yaşadığı zorluklar [Difficulties experienced by teachers in the distance education during COVID-19 pandemic]. *E-International Journal of Pedandragogy (e-ijpa),* 1(1), 55-73. https://doi.org/10.27579808/e-ijpa.20

Kırık, A.M. (2014). Uzaktan eğitimin tarihsel gelişimi ve Türkiye'deki durumu [Historical development of distance education and the situation in Turkey]. *Marmara İletişim Dergisi*, 21, 73-94. https://doi.org/10.17829/midr.20142110299

Işık, M. & Bahat, İ. (2021). COVID-19: Eğitimde yeni arayışlar [The coronavirus: New quests in education]. *Journal of University Research,* 4(1), 82-89. https://doi.org/10.26701/uad.797635

İnci Kuzu, Ç. (2020). COVID-19 pandemisi sürecinde uygulanan ilkokul uzaktan eğitim programı (EBA TV) ile ilgili veli görüşleri [The views of the parents on primary school distance education program (EBA TV) implemented during the COVID-19 pandemic]. *Milli Eğitim Dergisi*, 49(1), 505-527. https://doi.org/10.37669/milliegitim.720556

Lin, C.Y. (2020). Social reaction toward the 2019 novel coronavirus (COVID-19). *Social Health and Behavior,* 3(1), 1-2.

MEB (2019). T.C. Milli Eğitim Bakanlığı bilim ve sanat merkezleri yönergesi. Retrieved from https://orgm.meb.gov.tr/meb_iys_dosyalar/2016_10/07031350_bilsem_yonergesi.pdf

MEB (2020). T.C. Milli Eğitim Bakanlığı özel eğitim hizmetleri yönetmeliği. Retrieved from https://orgm.meb.gov.tr/meb_iys_dosyalar/2020_06/24163215_ozel_eYitim_yonetmeliYi_son_hali.pdf

Metin, M., Gürbey, S. & Çevik, A. (2021). COVID-19 pandemi sürecinde uzaktan eğitime yönelik öğretmen görüşleri [Teacher opinions on distance education in COVID-19 pandemic process]. *Maarif Mektepleri Uluslararası Eğitim Bilimleri Dergisi,* 5(1), 66-89. https://doi.org/10.46762/mamulebd.881284

Olcay, Z.F. & Sakallı, A.E. (2022). The effect of COVID-19 on university students and class grades. *Journal of University Research*, 5(1), 101-108. https://doi.org/10.32329/uad.1011062

Önder, E. (2022). COVID-19 salgınında öğretmenlerin uzak eğitime ilişkin deneyimleri [Teachers' experiences on distance education during the COVID-19 pandemic]. *Millî Eğitim*, 51(233), 399-418. https://doi.org/10.37669/milliegitim.787838

Özbay, Ö. (2015). Dünyada ve Türkiye'de uzaktan eğitimin güncel durumu [The current status of distance education in the world and Turkey]. *Uluslararası Eğitim Bilimleri Dergisi,* (5), 376-394.

Özdemir, Ç., Çakıroğlu, M., Bayılmış, C. & Ekiz, H. (2004). Teknolojik gelişme için eğitimin önemi ve internet destekli öğretimin eğitimdeki yeri [The importance of education for technological development and the place of Internet-aided instruction in education].*The Turkish Journal of Educational Technology*, 3(3), 144-147.

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

Özgöl, M., Sarıkaya, İ. & Öztürk, M. (2017). Örgün eğitimde uzaktan eğitim uygulamalarına ilişkin öğrenci ve öğretim elemanı değerlendirmeleri [Students' and teaching staff's assessments regarding distance education applications in formal education]. *Yükseköğretim ve Bilim Dergisi,* 7(2), 294-304. https://doi.org/10.5961/jhes.2017.208

Özyürek, A., Begde, Z., Yavuz, N.F. & Özkan, İ. (2016). Uzaktan eğitim uygulamasının öğrenci bakış açısına göre değerlendirmesi [Evaluation of distance education applications from students' perspective]. *Karabük Üniversitesi Sosyal Bilimler Enstitüsü Dergisi,* 6(2), 592-605.

Patton, M.Q. (2005). *Qualitative research.* New York: John Wiley and Sons Ltd.

Sağlık Bakanlığı, (2020). COVID-19 (sars-cov-2 enfeksiyonu) rehberi, T.C. Sağlık Bakanlığı Halk Sağlığı Genel Müdürlüğü. Retrieved from

https://toraks.org.tr/site/sf/nmf/pre_migration/0cd6655ae86e94eec61e88ab75cc757d8eaa1df39ce43d3c871b3d715afde5b6.pdf

Sarıtaş, E., Şahin, Ü. & Çatalbaş, G. (2019). Velilerin gözüyle BİLSEM [Science and art centers (SAC) according to the parents]. *Eğitimde Nitel Araştırmalar Dergisi,* 7(1), 114-133. https://doi.org/10.14689/issn.2148-2624.1.7c1s.5m

Seyhan, A. (2021). Sosyal bilgiler öğretmen adaylarının COVID-19 salgını sürecinde uzaktan eğitim deneyimleri ve görüşleri [Distance education experiences and opinions of prospective social studies teacher during the covid-19 epidemic]. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi* (AUAd), 7(3), 65-93. https://doi.org/10.51948/auad.910385

Sığın, S. (2020). *Atatürk ilkeleri ve inkılâp tarihi dersinin uzaktan eğitim yoluyla verilmesi konusunda öğrenciler ve öğretim elemanları ne düşünüyor?: Tek durumlu bir örnek olay çalışması* [What do teachers and learners think about distance education of the course of principles of Atatürk and history of Turkish revolution: A single case study]. (Unpublished Master's Thesis), Aydın Adnan Menderes Üniversitesi, Aydın.

Sirem, Ö. & Baş, Ö. (2020). Okuma güçlüğü olan ilkokul öğrencilerinin COVID-19 sürecinde uzaktan eğitim deneyimleri [Distance education experiences of elementary school students with reading difficulties in COVID-19 process]. *Turkish Studies,* 15(4), 993-1009. https://doi.org/10.7827/TurkishStudies.43346

Topkaya, Ö. (2016). Historical development of health-care systems in the world with respect to social policy. *Suleyman Demirel University The Journal of Faculty of Economics and Administrative Sciences,* 21(2), 707-722.

Türksoy, E., & Karabulut, R. (2020). Gifted students' perceptions of distance education in the COVID-19 epidemy. *Talent,* 10(2), 176-189. https://doi.org/10.46893/talent.773442

Umurhan, H. (2014). *Öğretim elemanlarını uzaktan eğitime teşvik eden unsurlar: Gazi Üniversitesi Örneği.* [Motivating factors of distance education for faculty: Gazi university example]. (Unpublished Master's Thesis), Gazi Üniversitesi, Ankara.

Uşun, S. (2006). *Uzaktan eğitim* [Distance education]. Ankara: Nobel Yayıncılık.

Uzuner, Y. (1999). Niteliksel araştırma yaklaşımları [Qualitative research approaches]. A.A. Bir (Ed.). *Sosyal bilimlerde araştırma yöntemleri (s.173-193).* Eskişehir: Anadolu Üniversitesi Açıköğretim Fakültesi Yayınları.

Ülger, K. (2021). Uzaktan eğitim modelinde karşılaşılan sorunlar-fırsatlar ve çözüm önerileri [Problems-opportunities and proposed solutions in distance education model]. *Uluslararası Güncel Eğitim Araştırmaları Dergisi (UGEAD),* 7(1), 393-412.

Wallace, P. (2009). Distance learning for gifted students: Outcomes for elementary, middle, and high school aged students. *Journal for the Education of the Gifted*. 32(3), 295–320.

Xu, X., Yu, C., Zhang, L., Luo, L. & Liu, J. (2020). Imaging features of 2019 novel coronavirus pneumonia. *European Journal of Nuclear Medicine and Molecular Imaging*, 47, 1022-1023. https://doi.org/10.1007/s00259-020-04720-2

Yaman, B. (2021). COVID-19 pandemisi sürecinde Türkiye ve Çin'de uzaktan eğitim süreç ve uygulamalarının incelenmesi [Examining the distance education processes and practices in Turkey and China during COVID-19 pandemic]. *OPUS– Uluslararası Toplum Araştırmaları Dergisi,* 17 (Pandemi Özel Sayısı), 3296-3308. https://doi.org/10.26466/opus.857131

Yelboğa, N. & Aslan, Ş.B. (2020). Sosyal sorun olarak salgın hastalıklar ve sosyal çalışmanın halk sağlığını koruma/geliştirme görevi incelenmesi [Epidemics as social problems and the duty of social work to protect/develop public health]. *Türkiye Sosyal Hizmet Araştırmaları Dergisi,* 4(1): 43-49.

Yıldırım, A. & Şimşek, H. (2013). *Sosyal bilimlerde nitel araştırma yöntemleri* (9. Baskı) [Qualitative research methods in social sciences (9th Edition)]. Ankara: Seçkin Yayıncılık.

Yılmaz Altuntaş, E., Başaran, M., Özeke, B. & Yılmaz, H. (2020). COVID-19 pandemisi sürecinde üniversite öğrencilerinin yükseköğretim kurumlarının uzaktan eğitime yönelik stratejilerine ve öğrenme deneyimlerine ilişkin algı düzeyleri [Perception levels of university students about remote learning strategies and learning experiences in the COVID-19 pandemic process]. *Uluslararası Halkla İlişkiler ve Reklam Çalışmaları Dergisi*, 3(2), 8-23.

Appendix 1. *Interview Form*

Interview Questions

Q1. Are there any advantages of the distance education process during the COVID-19 pandemic period? If so, what are they?

Q2. Are there any disadvantages of the distance education process during the COVID-19 pandemic period? If so, what are they?

Q3. Did you have any problems with your students/teachers during the distance education process in the COVID-19 pandemic period? What were these problems?

Q4. Did you experience technological problems during the distance education process in the COVID-19 pandemic period? If so, what were these problems?

Q5. Did you have any problems with students' parents during the distance education process in the COVID-19 pandemic period? If so, what were these problems