

Adaptation of students to professional activity through innovative technologies

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Abstract

The aim of this research is to reveal the views of primary school teachers, students and parents on distance education activities during the Covid-19 pandemic period, in order to evaluate the adaptation of students to professional activities through innovative technologies. This research was carried out in qualitative research designs in accordance with phenomenology. The data were collected by the researcher through semi-structured interview forms prepared separately for teachers, students and parents. The participants of the study consisted of 10 primary school teachers, 20 primary school students and 25 parents of students who were working in various primary schools in the city of Shymkent, Kazakhstan in the 2020-2021 academic year and agreed to participate in the research voluntarily. As a result of the research, it has been revealed that the majority of teachers, students and parents find the quality of distance education insufficient, they prefer face-to-face education to distance education, and they encounter many problems in the distance education process.

Keywords: Covid-19 pandemic, distance education, education during the pandemic, quality of distance education

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1. Introduction

The world is going through a phase of change in education and socio-cultural policy (Gabdrakhmanova, Turetayeva and Doszhanova, 2020, Lasauskiene and Yang, 2018). The Covid-19 pandemic, which caused this change, and the measures taken to reduce its spread have profoundly affected the education sector and learning-teaching environments, as well as causing changes in all sectors. The rapid change in educational conditions has necessitated a rapid adaptation in areas such as online education, information technology infrastructure, and digital literacy. Accordingly, students were tested on issues such as adapting to the transition to the online education environment, teachers not reducing the quality of education regardless of their online education qualifications, and parents ensuring that students are least affected by the current situation, and this adaptation process has created many new problem areas.

The Covid-19 pandemic process has created a new understanding of education that encompasses all education systems in the world, which requires the adaptation of students to the new learning platform through innovative technologies in the transition from face-to-face education to an online education environment, and which necessitates the rapid and effective resolution of the problems that may arise regarding this adaptation.

1.1. Theoretical and conceptual framework

The requirements of the 21st century and changing educational paradigms point to the emergence of a new understanding of education in which digital technologies have a mandatory impact on learning and teaching processes (Keser, Semerci, 2019).

The epidemic, which is thought to have emerged in Wuhan, China in December 2019 and spread rapidly all over the world and was transmitted to the World Health Organization China Country Office by Chinese experts, is called Covid-19 (Huang et al., 2020). With the pandemic, the lives of all people around the world have suddenly changed (Zhao, 2020). In order to slow the spread of the disease and to gain time to carry out treatment and drug studies in this process, applications such as flexible working, working from home, and rotating work have been made. Partial and full-time curfews and quarantine processes implemented all over the world have begun and social distance and personal precautions have become vital. Within the scope of all these measures, places where there may be a risk of transmission have been closed, and schools at all education levels have been included in this scope (Gupta and Goplani, 2020).

This process necessitated the integration of teaching and learning activities, in which the teacher and the student, who are in the traditional education understanding, continue interactively in the same synchronized environment, through distance education (Gabdrakhmanova, Turetayeva and Doszhanova, 2020). Distance education has allowed teachers and students to be considered as a non-formal education system of the future with the integration of innovative technologies, where different places, times and contents are gathered in a single center without being in the same environment (Nicholson, 2002).

The fact that teachers and students had to switch to online education, which is the new education platform, brought along many problems. Competencies related to current information technologies, diversity of technology-supported online learning and teaching materials, teachers' digital competencies in teaching online and the adaptation process of students to the new educational environment are identified as the main problems. In addition, student motivation, lack of

communication and social problems related to the adaptation process appear as the topics that are discussed and need to be solved (Carolan et al., 2020).

The difficulties arising from the realization of distance education in the home environment arise from the use of digital technologies in education without being sufficiently tested and without the necessary competencies at all levels of education. The biggest concern of teachers who have to manage this process as well as students and parents who have to adapt to the process is whether face-to-face education opportunities will be met with online education (Agnoletto and Queiroz 2020).

1.2. Related research

In the Covid-19 pandemic period, which caused radical changes in education systems all over the world, studies dealing with these radical changes have been carried out and still continue.

Herwin et al. (2021) aimed to analyze the online learning organization of teachers during the Covid-19 epidemic. In the research conducted with primary school teachers, the results show that online learning is based on a simplified curriculum with the selection of key competences considered crucial to transfer to students.

Hermanto, Rai and Rahmi (2020) studied how the application of online learning affects students' learning attitude and motivation during the Covid-19 pandemic. As a result of the research, it was emphasized that the online learning motivation of the students is lower than the face-to-face education, and the necessity of developing interesting materials and teaching methodology to increase their motivation.

In their study, Burke and Dempsey (2020) revealed the advantages and disadvantages of closing schools in Ireland during the pandemic process, claiming that this process is an important opportunity to fully embrace the digital learning world. The researchers stated that educators are under pressure to continue online education and that they are worried about falling behind the curriculum when face-to-face education is reinstated.

Rovai and Downey (2010) in their study, which included the advantages of online education, defended the view that an easy and effective education can be provided with contemporary methods thanks to the innovative technologies applied in online distance education.

On the other hand, Genç and Gümrükçüoğlu (2020) pointed out the necessity of media designs and presentation techniques that differ according to the level of instruction and the type of courses in which online courses are applied. In addition, the researchers concluded that the characteristics of the communication tools, materials, student-teacher interaction, learning processes, course content and evaluation processes used in online education will affect the whole learning-teaching process and the quality of the course.

The research of Haghshenas (2019) similarly points to the requirements of the system. As a result of the research, it was emphasized that instruments such as lessons, exams, homework, course contents, lesson plans and course materials should be organized within the system in online learning.

Daniel (2020) researched what kind of preparations should be made in a short time as a result of the rapid transition of educational institutions to online education. In the research, which focuses on the extent to which the preparations to be made will address the needs of the students, the necessity of giving confidence to the students and parents is underlined. The results of the research emphasized

the need for all schools to create a system that works best on digital platforms by using innovative technologies in distance education.

It is thought that the evaluation of online education applications, which are the mandatory result of the pandemic process and a product of innovative technologies, from the perspective of teachers, students and parents will reveal important findings regarding the quality of distance education in primary schools. The fact that there is no clarity yet on when the Covid-19 pandemic process we are in will end means that the need for distance education will continue. On the other hand, although the pandemic process has been overcome all over the world, the fact that the value of distance education has increased in this process and that it has become widespread with the effect of innovative technologies and the process has revealed the fact that distance education needs will exist independently of necessity in the coming years. For this reason, the opinions and suggestions of teachers, students and parents, who are the subject of the process, are important in order to develop the distance education process and make the necessary arrangements and interventions.

1.3. Purpose of the research

The purpose of this research is to reveal the views of primary school teachers, students and parents on distance education activities during the Covid-19 pandemic in order to evaluate the adaptation of students to professional activities through innovative technologies. For this purpose, answers to the following questions were sought;

1. What are the opinions of the classroom teachers about the distance education activities implemented during the Covid-19 isolation period?
2. What are the opinions of primary school students about distance education activities implemented during the Covid-19 isolation period?
3. What are the views of parents on distance education activities implemented during the Covid-19 isolation period?

2. Method and Materials

This section includes information about the research model, participants, data collection tools, data collection process and data analysis.

2.1. Research method

In this study, phenomenology (phenomenology) design, one of the qualitative research designs, was used. The phenomenology design focuses on the phenomena that we are aware of but do not have a detailed and in-depth understanding of in our daily life, aiming to bring to light the experiences of individuals and the common main features in the meanings they attribute to these experiences in their world or the main structure of the experience (Denscombe, 2007). In this study, it was found appropriate to use the phenomenology design as it reflects the views of the participants, their experiences and the meanings they attribute to these experiences.

2.2. Participants

Purposeful sampling method, which is frequently used in qualitative research, was used in this study. Purposeful sampling is a widely used method in qualitative research for identifying and selecting

information-rich cases for the most effective use of limited resources. In this sampling method, individuals or groups who are experienced and knowledgeable about the researched subject are selected. Participants whose opinions were used in the research were selected by convenience sampling method, one of the purposeful sampling methods. In this method, cases that are easy to access and inexpensive are selected. It is the most widely used sampling strategy. It is used in both qualitative and quantitative studies (Yagar and Dokme, 2018).

The participants of the study consisted of 10 primary school teachers, 20 primary school students and 25 parents of students who were working in various primary schools in the city of Shymkent, Kazakhstan, in the 2020-2021 academic year and agreed to participate voluntarily in the research. Demographic characteristics of the participants are given below.

In Table 1, demographic distributions of primary school teachers participating in the research regarding their professional experience and gender are given.

Table 1. : *Professional experience and gender distribution of primary school teachers*

Professional experience	Gender		Sum
	Female	Male	
0-5 Years	1	-	1
6-10 Years	1	1	2
11-15 Years	3	2	5
16 Years and above	1	1	2
Sum	6	4	10

In Table 1, the professional experience and gender distribution of the teachers who voluntarily participated in the research are given. 6 of the teachers participating in the research are female and 4 are male. 1 of the female teachers participating in the research has 0-5 years of experience, 1 has 6-10 years of experience, 3 has 11-15 years of experience and 1 has 16 years or more of experience. Of the male teachers participating in the research, 1 has 6-10 years of experience, 2 has 11-15 years of experience, and 1 has 16 years or more of experience. It is seen that male teachers with 0-5 years of experience did not participate in the research.

In Table 2, the demographic characteristics of the primary school teachers participating in the research regarding the class they teach are given.

Table 2.: *Class distribution of primary school teachers*

	F	%
1st class teacher	2	20
2th class teacher	3	30
3rd class teacher	1	10
4th class teacher	4	40
Sum	10	100

Table 2 shows the class distributions of the teachers participating in the research. 2 teachers participating in the research give education to the 1st grade, 3 teachers to the 2nd grade, 1 teacher to the 3rd grade and 4 teachers to the 4th grade.

In Table 3, demographic characteristics of primary school students participating in the research regarding gender and class distribution are given.

Table 3. : Gender and class distribution of primary school students

Sinif	Gender		Sum
	Female	Male	
1st Class	2	3	5
2nd Class	4	1	5
3rd Class	-	6	6
4th Class	1	3	4
Sum	7	13	20

In Table 3, the gender and class distributions of the students participating in the research are given. 5 students participating in the research are 1st grade, 5 students are 2nd grade, 6 students are 3rd grade and 4 students are 4th grade students. In addition, 7 of the students participating in the research are girls and 13 are boys. A total of 20 students participated in the research.

In Table 4, the demographic characteristics of the parents participating in the research are given.

Table 4.: Demographic distribution of parents

	F	%
Anne	16	64
Baba	9	36
Toplam	25	100

Table 4 shows the parental distribution of the parents who voluntarily participated in the study. Of the parents participating in the research, 16 are mothers and 9 are fathers. Based on this, it was concluded that mothers showed more interest in the study than fathers.

2.3. Data collection tools

In the research, semi-structured interview forms developed by the researcher were used as data collection tool. During the preparation of semi-structured interview forms, primarily the studies covering the distance education process in the pandemic were examined. Then, drafted interview questions which were prepared separately for teachers, students and parents were presented to 2 primary school teachers to get expert opinion. In line with the feedback from the teachers, the final form of the semi-structured interview forms was created. In each of the semi-structured interview forms, there are questions about the demographic characteristics of the participants and 3 open-ended questions. Semi-structured interview forms are included at the end of the research in the form of Annex-1, Annex-2 and Annex-3.

2.4. Data collection process

Teacher interview form, one of the semi-structured interview forms prepared for use in the research, was delivered to teachers via e-port due to social distance measures during the Covid-19 pandemic process. A collaborative approach to reaching students and parents was expected from teachers who wanted to participate in the research voluntarily, and semi-structured parent interview forms were sent to them by taking e-mails of parents. As a result of the communication established with the parents, the questions in the semi-structured student interview form were asked to the students via video and audio interviews. The interviews with the students were recorded with a voice recorder. The audio responses of the interviews were transferred to the semi-structured student interview form by the researchers.

2.5. Data collection analysis

Content analysis was used in the analysis of the research data. Content analysis is expressed as identifying, counting and interpreting repetitive issues, problems and concepts within the obtained qualitative data (Silverman, 2000). The questions in the semi-structured interview forms were categorized using the coding method. Teachers participating in the research T1, T2, T3..., students S1, S2, S3... And parents are coded as P1, P2, P3.... The answers to the questions in the semi-structured interview forms were examined, and themes and sub-themes were created. Teacher, student and parent interview forms were sent to 3 classroom teachers, who were not among the participants, to get expert opinion. Experts were expected to reach the themes and sub-themes in the interview forms. Then, the themes and sub-themes created by researchers and experts were compared (Meadow-Orlans, Mertens and Sass-Lehrer, 2003). In terms of the reliability of the study, common themes and sub-themes were decided and given in tables with frequency and percentage calculations. In addition, the views of the participants supporting the themes are included under each table by directly quoting along with their codes.

3. Results

The research data consists of teacher opinions, student opinions, parent opinions and the sections where these opinions are compared.

3.1. Teachers' views on distance education activities implemented during the Covid-19 pandemic process

Evaluations of teachers who voluntarily participated in the research about distance education ; their views on the quality of distance education, their views on face-to-face education preferences with distance education, and their views on the problems encountered in the distance education process are summarised below.

Table 5 includes primary school teachers' views on the quality of distance education.

Table 4.: Teachers' views on the quality of distance education

Themes	Reasons	F
Distance education is not enough	Difficulty in providing student motivation	7
	Difficulty in interactive teaching	
	Difficulty fixing technical glitches	
	Difficulty applying activity	

	Partial adaptation of the student	
Distance education is partially sufficient	A certain degree of functionality of the lessons Adaptability of the curriculum to distance education partially	2
Distance education is sufficient.	Opportunity to access enriched content Completion of educational activities	1

In Table 5, the views of the teachers participating in the research on the quality of distance education were evaluated. The quality of distance education is gathered in three categories as “Distance education is insufficient”, “Distance education is partially sufficient” and “Distance education is sufficient”. While 7 of the teachers found distance education insufficient, 2 of them found distance education partially sufficient. 1 of the teachers who participated in the research stated that distance education is sufficient.

The opinions of some teachers regarding the quality of distance education during the Covid-19 pandemic process are as follows;

T2 Code Teacher; I believe that providing primary school education with distance education reduces the quality of education. It is very difficult to motivate students to the lesson. Part of the lesson is spent adapting the students to the lesson.

T3 Code Teacher; I see distance education as a partially qualified system that can be applied under pandemic conditions. I think that the courses are instructive to a certain extent, but not fully sufficient.

T8 Code Teacher; Distance education applications provide a technological learning environment suitable for the needs of the age. In this respect, education and training activities can be completed easily by supporting the student's adaptation process in a technology-supported environment.

Table 6 shows primary school teachers' preferences for distance education and face-to-face education.

Table 6.: *Teachers' preferences for distance education and face-to-face education*

Themes	Reasons	F
Face to face education	Effective learning	7
	Content and material richness in learning	
	Student's opportunity to socialize teacher-student-parent collaboration	
Conducting distance and face-to-face education together	Complementary function of distance education in face-to-face education	2
Distance education	Providing technology-based learning opportunities	1

In Table 6, distance education and face-to-face education preferences of primary school teachers participating in the research were evaluated. While 7 of the teachers participating in the research preferred face-to-face education, 2 of them stated that distance education and face-to-face education should be carried out together. In addition, 1 teacher stated that distance education is more advantageous than face-to-face education.

The opinions of some teachers regarding face-to-face education and distance education preferences are given below;

T1 Code Teacher; In face-to-face education, students learn more healthily. In addition, organizing in-class activities and course materials is much easier in face-to-face education. In addition to the healthy communication with the student, the support of the families in face-to-face education is much more than in distance education.

T10 Code Teacher; I think that distance education has a supporting function of face-to-face education. In order to reinforce the lessons taught in the classroom environment, additional lessons conducted remotely will increase the quality of education.

T8 Code Teacher; Distance education provides students with an important opportunity in education. Students have the opportunity to learn through technology in virtual classrooms created differently from the classical learning environment.

Table 7 shows the opinions of primary school teachers about the problems encountered in the distance education process.

Table 7: Problems faced by teachers in the distance education process

Themes	Reasons	F
I'm having a problem	Ineffective use of lecture and break times	8
	Problems caused by internet and technical glitches	
	Class management problem	
	Communication problems	
I don't have a problem	-	2

In Table 7, the opinions of the teachers participating in the research regarding the problems they experienced in the distance education process were evaluated. While 8 of the teachers participating in the research stated that they had various problems, 2 of the teachers stated that they did not have any problems.

The opinions of some teachers about the problems experienced in the distance education process are given below;

T4 Code Teacher; There are more than one problem that I encountered during the distance education process. The first of these is about using the lesson time effectively. I spend time building up the motivation of the students, which results in a shorter time taught in the lesson. In addition, the quality of the lesson decreases when there is no internet connection or the image freezes. In addition, it is much more difficult to establish authority over the student in front of the screen than in the classroom environment.

T9 Code Teacher; I have not encountered any problems in the distance education process so far.

3.2. Students' views on distance education activities implemented during the Covid-19 pandemic process

This section captures the evaluations of the students who voluntarily participated in the research about distance education; their views on the quality of distance education, their views on face-to-face education preferences with distance education, and their views on the problems encountered in the distance education process.

Table 8 includes primary school students' views on the quality of distance education.

Table 8: *Students' views on the quality of distance education*

Themes	Reasons	F
Distance education is not enough	Difficulty in lesson motivation	14
	Difficulty communicating in class	
	Insufficient lesson time	
Distance education is partially sufficient	Partially efficient lessons	4
	Partial enjoyment in lessons	
	Partial communication in lessons	
Distance education is sufficient.	Being more comfortable than the classroom environment	2
	Lectures are instructive	

In Table 8, primary school students' views on the quality of distance education are evaluated. While 14 of the students participating in the research found distance education insufficient, 4 students found distance education partially sufficient. 2 of the students stated that they found distance education sufficient.

The opinions of some students regarding the quality of distance education during the Covid-19 pandemic period are as follows;

S3 Code Student; I think it's insufficient. I am easily distracted in class. When the teacher is teaching, sometimes my mind goes elsewhere. Sometimes I want to ask the teacher something I don't understand, but I don't. Sometimes the lesson ends before I fully understand the lesson.

S1 Code Student; I can listen to the lectures a little. Sometimes I have fun in the lessons. The teacher sometimes plays didactic games. Classes go well at that time.

S16 Code Student; I love online education. It is nicer and more comfortable to study at home. I have my breakfast and turn on my computer. I think it's comfortable.

Table 9 shows the preferences of the students regarding distance education and face-to-face education.

Table 9: *Distance education and face-to-face education preferences of students*

Themes	Reasons	F
Face to face education	Socialization opportunity	15
	Too many extracurricular activities	
	Better understanding of the lesson	
	Lesson concentration	

Distance education	The comfort of the distance education environment Distance education is more fun	5
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In Table 9, students' views on distance education and face-to-face education preferences are evaluated. While 15 of the students participating in the research preferred face-to-face education over distance education, 5 students preferred distance education.

The opinions of some students regarding the quality of distance education during the Covid-19 pandemic period are as follows;

S10 Code Teacher; I prefer school education. I like to spend time there with my friends. I also learn more from the lessons. I miss spending time with my friends during recess.

S18 Code Teacher; I think it is better to study at home. We don't have to go to school. Seems more fun to me. When the lesson is over, I am not too tired because I am at home.

Table 10 shows the students' views on the problems encountered in the distance education process.

Table 10: Problems faced by students in the distance education process

Themes	Reasons	F
I'm having a problem	Inability to concentrate on lessons	16
	Feeling of loneliness	
	Learning disability	
I don't have a problem	-	4

In Table 10, students' views on the problems they encounter during the distance education process are evaluated. While 16 of the students participating in the research stated that they had problems in the distance education process, 4 students stated that they did not have any problems in the distance education process.

The opinions of some students regarding the problems encountered in the distance education process during the Covid-19 pandemic period are as follows;

S2 Code Student; I get bored right away in class. Sometimes I do not fully understand what the teacher is talking about in the lesson. I am tired of being at home all the time. I don't have friends. If I was at school, I would have had a better time with them.

S13 Code Student; I do not have any problems while teaching in distance education. I love being at home. Classes are going well.

3.3. The opinions of the parents of the students regarding the distance education activities implemented during the Covid-19 pandemic process.

This section captures the evaluations of the parents of the students who voluntarily participated in the research about distance education; their views on the quality of distance education, their views on face-to-face education preferences with distance education, and their views on the problems encountered in the distance education process.

Table 11 includes the views of parents of primary school students on the quality of distance education.

Table 11: *Parents' views on the quality of distance education*

Themes	Reasons	F
Distance education is not enough	Insufficient education	18
	Insufficient course activities	
	Insufficient extracurricular activities	
	Lack of student motivation	
Distance education is partially sufficient	Partial adequacy of education	5
	Partial adequateness of course activities	
	Partially sufficient extracurricular activities	
Distance education is sufficient.	Students teaching at home	2
	Modern education concept	

In Table 11, the views of the students' parents on the quality of distance education were evaluated. While 18 of the parents who participated in the research stated that they found distance education insufficient, 5 parents stated that distance education was partially sufficient. 2 parents who participated in the research found distance education sufficient.

The opinions of some parents regarding the quality of distance education during the Covid-19 pandemic period are as follows;

P2 Coded Parent; I think that distance education has many disadvantages for students. Less qualified education, more difficult learning, inadequacy of in-class and extra-curricular activities are among the problems. My son is always interested in other things during the lesson. This negatively affects his learning.

P11 Coded Parent; I think that teachers are trying to give a good education in distance education, although it is not exactly as face-to-face education. They try to motivate the students to the lessons by spending the lessons with activities as much as they can. However, I think there are some shortcomings.

P4 Coded Parent; Distance education provided the student with the opportunity to study at home. Students do not waste time on the road, they save time. In addition, distance education created a perception in children beyond the understanding that computers are used only for games. They started using technology in a positive way. The age we live in demands it.

Table 12 shows the preferences of the parents of the students regarding distance education and face-to-face education.

Table 12: *Distance education and face-to-face education preferences of parents*

Themes	Reasons	F
	The positive effect of the learning environment	
	Persistence of learning	
	The student's need for socialization	

Student and teacher motivation		
Face to face education		19
Conducting distance and face-to-face education together	Supportive education	4
Distance education	Time and space savings	2

Distance education and face-to-face education preferences of students' parents are evaluated in Table 12. While 19 of the parents participating in the research preferred face-to-face education, 4 of them advocated the necessity of conducting distance and face-to-face education together. In addition, 2 parents stated that they preferred distance education to face-to-face education.

The views of some parents regarding distance education and face-to-face education preferences during the Covid-19 pandemic period are as follows;

P3 Coded Parent; I support education at school. I think it is easier for students to concentrate on the lesson in the classroom environment. I think that students' ability to socialize is as important as their academic success. The school has this opportunity. In addition, I believe that the education is more qualified in terms of teachers.

P21 Coded Parent; I think that full-time schooling is no longer necessary. Certain lessons should be held at school and online education should be used for the remaining complementary activities. I think it would be healthier to run the two together.

P13 Coded Teacher; I find distance education more advantageous. Children do not waste time on the road. No worries about going to school. They also have the opportunity to learn in a more comfortable environment at home. This is an important convenience.

Table 13 shows the opinions of the parents of the students about the problems encountered in the distance education process.

Table 13: Problems faced by parents in the distance education process

Temalar	Nedenleri	F
I'm having a problem	Ders sürelerinin etkili kullanılmaması	23
	Öğretmenin ders otoritesi sağlayamaması	
	Öğrencinin derse motive olamaması	
I don't have a problem	İletişimle ilgili problemler	2
	-	

In Table 13, the views of the parents regarding the problems they encountered during the distance education process were evaluated. While 23 of the teachers participating in the research expressed their problems with distance education, 2 parents stated that they did not have any problems.

The opinions of some parents regarding the problems encountered in the remote process during the Covid-19 pandemic period are as follows;

P17 Coded Parent; We encounter many problems. Children cannot fully adapt to the lesson. Teachers are having trouble managing the lesson. In addition, when we went to school, we could get healthier information about our child's condition. Now we may have problems with communication.

P23 Code Teacher; I think the process is well managed. This process is an important opportunity for teachers, students and parents alike. It is our duty to keep up with the changing understanding of education. I think this task has been fulfilled properly.

3.4. Comparison of teacher-student and parent views on distance education activities implemented during the Covid-19 pandemic process

In Table 14, the views of teachers, students and parents who voluntarily participated in the research about distance education were evaluated comparatively.

Table 14: *Opinions of teachers, students and parents about distance education*

Themes	Sub-themes	Teacher		Student		Parent	
		F	%	F	%	F	%
Quality of distance education	Distance education is not enough	7	70	14	70	18	72
	Distance education is partially sufficient	2	20	4	20	5	20
	Distance education is sufficient.	1	10	2	10	2	8
Sum		10	100	20	100	25	100
Distance and face-to-face education preferences	Face to face education	7	70	15	75	19	76
	Conducting face-to-face and distance education together	2	20	-	-	4	16
	Distance education	1	10	5	25	2	8
Sum		10	100	20	100	25	100
The situation of encountering the problem	I'm having a problem	8	80	16	80	23	92
	I don't have a problem	2	20	4	20	2	8
Sum		10	100	20	100	25	100

In Table 14, the views of teachers, learners and parents participating in the research on distance education were evaluated comparatively. In terms of the quality of distance education, 70% of teachers, 70% of students and 72% of parents found distance education insufficient. While 20% of teachers, 20% of students and 20% of parents found distance education partially sufficient, 10% of teachers, 10% of students and 8% of parents found distance education sufficient. When asked about their preferences for distance and face-to-face education, 70% of the teachers, 75% of the students and 76% of the parents stated that they prefer face-to-face education. While there were no students who preferred face-to-face and distance education together, 20% of the teachers and 16% of the parents stated that both types of education should be carried out together. In addition, 10% of teachers, 25% of students and 8% of parents preferred distance education. According to the situation of encountering the problem, 80% of the teachers, 80% of the students and 92% of the parents stated

that they had problems. 20% of the teachers, 20% of the students and 8% of the parents stated that they did not have any problems.

4. Discussion

Research findings reveal that primary school teacher students and their parents found the quality of distance education inadequate during the Covid-19 pandemic period. In their study, De Paepe, Zhu, and Depryck (2018) defined the factors that negatively affect the quality of distance education as lack of motivation, social isolation and lack of face-to-face communication. In the study conducted by Serçemeli and Kurnaz (2020) on students, they stated that the factor that reduces the quality of distance education is the lack of interaction between the teacher and the student.

When the distance and face-to-face education preferences of primary school teachers, students and parents were evaluated during the Covid-19 pandemic period, it was revealed that they preferred face-to-face education at a high rate. In their study, Karaca and Kelam (2020) concluded that distance education given during the Covid-19 pandemic process negatively affects students, causes educational anxiety and learning difficulties, and accordingly lags behind face-to-face education practices. Patricia (2020) also revealed in her study, similar to research findings, that students prefer face-to-face education rather than distance education during the Covid-19 process.

When the teachers, students and parents who participated in the research were asked about the problems related to distance education, the majority of the participants mentioned the problems they experienced in this process. Problems are mostly centered around course duration, course activities, course discipline, technological disruptions, lack of communication and student motivation. In their study, Burke and Dempsey (2020) reported that teacher skills for distance education were insufficient during the Covid-19 pandemic process. Sintema (2020) stated in his study that students' communication skills with teachers were weak during the Covid-19 pandemic process.

When the researches in the field and the findings of this research are evaluated, it is seen that distance education, which has been implemented rapidly all over the world during the Covid-19 pandemic process, has not yet been completely cleared of problems.

5. Conclusion

In this research, the adaptation of students to professional activities through innovative technologies was evaluated within the scope of distance education applications in the Covid-19 pandemic process. It is an undeniable fact that distance education, which is carried out as an education approach suitable for the needs of the era we live in and the pandemic process we are in, plays an alternative and saving role to face-to-face education. In this direction, the opinions of primary school teachers, students and parents, who constitute the study group of the research, regarding the distance education activities during the Covid-19 pandemic process were taken. It has been concluded that the majority of teachers, students and parents find the quality of distance education inadequate, they prefer face-to-face education to distance education, and they encounter many problems in the distance education process. In today's world, where the Covid-19 pandemic continues and we need distance education applications, improving distance education applications and solving problems are of great importance in terms of maintaining the quality of education.

6. Recommendations

In line with the findings obtained from the research, the following recommendations have been developed in order to increase the quality of distance education applications during the Covid-19 pandemic process.

In-service training should be given to primary school teachers in order to increase student motivation in distance education practices. By conducting these trainings online, platforms should be created where teachers can share their problems in this field and produce mutual solutions.

In order to solve the problems experienced by students in distance education applications, all elements that have an impact on learning such as course activities, course contents, course durations should be supported by innovative technologies and the design should be updated in a way that facilitates learning and focusing.

An online platform should be created that will enable parents to receive professional support for the problems they experience regarding distance education applications during the Covid-19 pandemic, and a system that supports parent-teacher cooperation should be established.

Annex-1 Teacher Semi-Structured Interview Form

Teacher Semi-Structured Interview Form				
<i>EXPLANATION; The purpose of this research; To reveal the views of primary school teachers, students and parents on distance education activities during the Covid-19 pandemic in order to evaluate the adaptation of students to professional activities through innovative technologies. In this direction, it is of great importance for the reliability of the research that you answer the following questions sincerely. Your personal data will not be shared anywhere in any way, and your answers will be indicated with various codes, adhering to the privacy policy. Thank you for your participation.</i>				
Teachers;				
Gender:	Female ()		Male ()	
Professional Experience:	1-5 Years ()	6-10 Years ()	11-15 Years ()	16 Years + ()
Class you teach:	1th Class ()	2nd Class ()	3rd Class ()	4th Class ()

1. What are your views on the quality of distance education applied during the Covid-19 pandemic process? Do you find it sufficient?

ANSWER

2. Which of the distance education and face-to-face education applications do you prefer in terms of the adequacy of education and training applications? What are your reasons?

ANSWER

3. Are you experiencing problems with distance education applied during the Covid-19 pandemic? Please indicate if you have a problem.

ANSWER

Student Semi-Structured Interview Form

EXPLANATION; The purpose of this research; To reveal the views of primary school teachers, students and parents on distance education activities during the Covid-19 pandemic in order to evaluate the adaptation of students to professional activities through innovative technologies. In this direction, it is of great importance for the reliability of the research that you answer the following questions sincerely. Your personal data will not be shared anywhere in any way, and your answers will be indicated with various codes, adhering to the privacy policy. Thank you for your participation.

Students;

Gender:	Female ()	Male ()		
Class:	1th Class ()	2nd Class ()	3rd Class ()	4th Class ()

1. What are your views on the quality of distance education applied during the Covid-19 pandemic process? Do you find it sufficient?

ANSWER

2. Which of the distance education and face-to-face education applications do you prefer in terms of the adequacy of education and training applications? What are your reasons?

ANSWER

<p>3. Are you experiencing problems with distance education applied during the Covid-19 pandemic? Please indicate if you have a problem.</p> <p>ANSWER</p>

Ek-3 Parent Semi-Structured Interview Form

<p>Parent Semi-Structured Interview Form</p> <p><i>EXPLANATION; The purpose of this research; To reveal the views of primary school teachers, students and parents on distance education activities during the Covid-19 pandemic in order to evaluate the adaptation of students to professional activities through innovative technologies. In this direction, it is of great importance for the reliability of the research that you answer the following questions sincerely. Your personal data will not be shared anywhere in any way, and your answers will be indicated with various codes, adhering to the privacy policy. Thank you for your participation.</i></p>	
<p>Parents;</p>	
<p>The degree of proximity:</p>	

1. What are your views on the quality of distance education applied during the Covid-19 pandemic process? Do you find it sufficient?

A N S W E R

2. Which of the distance education and face-to-face education applications do you prefer in terms of the adequacy of education and training applications? What are your reasons?

A N S W E R

3. Are you experiencing problems with distance education applied during the Covid-19 pandemic? Please indicate if you have a problem.

A N S W E R

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