



The Future of Distance Education in Primary Schools During COVID-19 Pandemic

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Abstract

The aim of this study assess the distance education applications used in primary schools in Turkey via teachers' views, and to present a suggestion for distance education model as referring both teachers' and instructors' views on this field. In this study, phenomenological research design, one of qualitative research approaches, is used as a research model. The sample of the study consists of 139 primary school teachers and 58 instructors. According to research findings, the participant teachers generally state that the distance education process applied in Turkey is enough and effective solution for the current issue. Distance education and learning applications are the most significant elements in order to supply the continuity of education in the pandemic process. For this reason, improving the effectiveness of distance education and finding solutions for the problems faced in this process are some of the priority targets in all countries. In this difficult period, a road-map is needed for the aim of directing this process correctly and effectively, and educational activities should go on being active in this process as adopting equality of opportunities in education as a basic principal. It is thought that the distance education model which is specifically designed for this study by the researchers as collecting data on the views of practitioner teachers and expert instructors, searching related literature and analyzing other researches in this issue can draw a road-map for this process.

Key Words

COVID-19
Distance education
Distance education model
Primary schools
Teachers

About Article

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Introduction

For 2020, as affecting the all world and becoming a pandemic disease, COVID-19 epidemic (new type corona-virus) that was firstly appeared in Wuhan, China in December- 2019 has been going on threatening the all humanity nowadays. In June-2021, the number of cases exceeded 175 million in the world and about 3.6 million people died because of this pandemic disease. With this pandemic, there have been some precautions which deeply affect the global economics and social life such as calling people to stay at home, travel bans, quarantine, closing up working places of people and temporarily closing the all schools and educational institutions. During this pandemic, notably economic issues, one of the mostly affected fields is education-teaching process. As being one of the main activities for students, parents and teachers, education-teaching process was mostly affected in this period (Hopegood, 2020; OECD, 2020; Saavedra, 2020; UNESCO, 2020a; Telli Yamamoto & Altun, 2020; Yaman, 2021). According to UNESCO data, 63 million educators and over 1, 5 billion students in 195 different countries were affected because of this pandemic in March, 2020, and education facilities were tried to be going on as closing up the schools (UNESCO, 2020a).

In Turkey, after the first case determined in March 11 2020, Ministry of Health began to get lots of rapid precautions in all fields as referring the suggestions of Science Committee. As a result of the coordinated interactions between Ministry of National Education (MoNE) and Ministry of Health, primary, elementary and high schools were closed up in March 16 2020 for two weeks (The first week was for semester holiday and the second week was for distance education). Then, it was decided that spring semester would be completed via distance education because of the poor issues in pandemic. Besides, it was announced by Council of Higher Education (CoHE) that universities were also closed for three weeks until the data of 13 March, 2020. With the second announcement realized by Head of CoHE, it was declared that spring semester would be completed via distance education (YÖK, 2020). After that, approximately 25 million students were affected by this situation in Turkey. About 6 million students in primary schools kept also away their teachers and schools. According to Giannini and Lewis (2020), closing up the schools in terms of spreading the virus helps both to make spreading of disease slower and to make the intensity of health system lower. With closing up the schools, however, education facilities have been going on via distance learning; it causes inequality of opportunities in education and also it causes some disadvantages and problems. Especially in poor and underdeveloped regions, it is stated that there can be some problems such as economics, completing academic career, having social stress, not getting healthy foods presented in schools and educating girls in some problematic and poor areas (Giannini and Albrechtsen, 2020). Additionally, Chang and Satako (2020) indicate that this pandemic will have some negative effects on education in terms of accessibility problems in technology-based learning, not having educational programs for teachers, imposing for parents and decreasing social interaction between children and teenagers.

With the significant effects of COVID-19 pandemic on education in all over the world, the need and approach of distance and online education come into prominence in general. Closing up the schools and commencing distance education bring about new responsibilities and tasks for governments, teachers, students and parents (Chang and Satako, 2020). In order to go on education, countries had some different precautions and applications in terms of their technologic and economic levels or potentials. In the countries which are preconditioned for issue, education technologies substructures and distance education process have been used; in some other countries online platforms have been used, and in some countries, media instruments such as internet, radio, mobile phones and television have been used as distance education tools. In this new process, teachers have changed their teaching methods and interactions or communications with students and they have also struggled to keep in step with digital education (Kırmızıgül, 2020).

In Turkey, MoNE selected Education Informatics Network (EIN – in Turkish EBA, the acronym stands for Eğitim Bilişim Ağı) that has already been used by teachers and students as a basic platform in this pandemic process. EBA is a digital education platform which was developed within FATİH Project (Movement to Increase Opportunities and Technology - in Turkish Fırsatları Artırma ve Teknolojiyi İyileştirme Hareketi) by Ministry of National Education - General Directorate of Innovation and Education Technologies in 2011-2012 academic years. The main aim of this platform was to make use of digital opportunities. In this platform, there are different kinds of contents such as materials, videos, e-books, exams, activities etc. for students from preschool to secondary schools

(Özer, 2020). As a dynamic platform, EBA gives also chance to teachers on interacting with students, following homework or assignments and organizing online courses. Since EBA digital platform is designed as a supplementary system for formal education, it has not the capacity to conduct the whole education system as online in this process. For this reason, MoNE has gone on distance education via video courses airing in three TRT channels (TRT-EBA TV) within the scope of a determined program. In epidemic process, conducted activities by MoNE in Turkey can be collected under the following headings (Özer, 2020; Kırmızıgül, 2020; Can, 2020; Telli Yamamoto & Altun, 2020);

- Strengthening EBA Platform
- Activating TRT-EBA TV Channels and Preparing Contents
- Supplying Free Internet Connection for Students
- Online Courses for 8. and 12. Grade Students
- Reviewing the Content of High School Entrance Exam and Registering Students Automatically
- Supporting Teachers Professional Development Via Distance Education
- Supporting Psychological Endurance and Welfare of Students and Parents
- Increasing Service Capacity of Professional Education and Teaching

With rapid cautions in educational fields in the pandemic process, Turkey shows that it is ready for this kind of crisis issue. Millions of teachers, students and parents have conducted distance education process collaboratively. However, like all countries, there have also been some problems in distance education process in Turkey. During COVID-19 pandemic process, there have been related studies and researches on countries' education applications. These studies, in general, focus on describing the current events on educational politics of countries after pandemic process (Özer, 2020; Kırmızıgül, 2020; Can, 2020; Telli Yamamoto & Altun, 2020; Hopegood, 2020; Chang & Satako, 2020). It is known that, countries have continued to conduct their studies on precautions for education because the pandemic has not been ended and a second wave of pandemic is expected in the world. In general, the question "How will education-teaching process is organized if the pandemic continues to spread?" is in people's mind. For this reason, it is seen as important that countries should examine their educational services, their problems and solutions for these problems in this process. Therefore, in this study, it is aimed to assess the distance education applications used in primary schools in Turkey via teachers' views, and to present a suggestion for distance education model as referring both teachers' and instructors' views on this field. As for these aims, the following questions will be answered in this study;

1. In pandemic process, what are the teachers' views on distance education in primary school?
2. In pandemic process, what are the problems faced in distance education in primary school?
3. In pandemic process, what are the suggested solutions for problems faced in distance education in primary school?
4. For 2020-2021 academic years and later, which kind of distance education model can be developed if pandemic process continues to be alive?

Method

Research Model

In this study, phenomenological research design, one of qualitative research approaches, is used as a research model. Phenomenology is a kind of study which is conducted to get a deep analysis with personal experiences on a phenomenon that we feel the presence of it but we do not have detailed knowledge (Creswell, 2015). In phenomenological researches, data sources comprise of participants who have experienced the target phenomenon and have reflected this phenomenon for the study (Yıldırım & Şimşek, 2016). In this study, primary school teachers' and instructors' views on distance education phenomenon in epidemic process are examined.

Sample of the Study

In phenomenological research design, purposive sampling method is generally used since it is needed to interact with experienced elements on target phenomenon in this kind of research (Rubin & Babbie, 2016). In this study, as one of purposive sampling methods, criterion sampling method is used. In phenomenological researches, sample group that is selected via criterion sampling method is useful in terms of representing experienced people on target phenomenon (Tashakkori & Teddlie, 2010). In this context, while selecting sample group for this study, being a primary school teacher and teaching in private or public schools are determined as the main criteria. Teaching in faculties of education is also determined a criteria for the other participant group (instructors) of this study.

Table 1. Demographic Features of the Participant Teachers

Demographic Features	Groups	f	%
Gender	Female	32	23,02
	Male	107	76,98
Professional Experience	1-5 years	31	22,30
	6-10 years	28	20,14
	11-15 years	23	16,55
	16 years and over	57	41,01
Teaching grades	1st grade	46	33,09
	2nd grade	21	15,11
	3rd grade	30	21,58
	4th grade	33	23,74
	Multi-grade class	9	6,47
School Types	Village School	43	30,94
	City Center School	79	56,83
	Private School	17	12,23
Total		139	100

Table 2. Demographic Features of the Participant Instructors

Demographic Features	Groups	f	%
Gender	Female	23	39,66
	Male	35	60,34
Academic Title	Prof. Dr.	23	39,66
	Assoc. Dr.	16	27,59
	Assist. Prof. Dr.	6	10,34
	Instructor	7	12,07
	Research Assistant	6	10,34
Total		58	100

Data Collection Instruments

In this study, an online interview form which is developed by researchers themselves was used to collect data. In phenomenological studies, the main data collection instrument is interview (Yıldırım & Şimşek, 2016). In the online interview form, firstly the questions based on the demographic features of participants are asked and then, there are four open-ended questions on the main aims of this study. The open-ended questions contented in the online interview form are presented below:

1. In pandemic process, how do you evaluate the distance education in primary schools?
2. In pandemic process, what are the problems faced in distance education in primary schools?
3. In pandemic process, what are your suggested solutions for the problems faced in distance education in primary schools?
4. For 2020-2021 academic years and later, which kind of distance education model do you suggest if pandemic process continues to be alive?

Data Analysis

As for data analysis, content analysis method was used in this study. The main aim of content analysis is to reach concepts and relations that can be used to describe the collected data for a study. Thanks to content analysis, data can be described and the realities which are hidden in data are aimed to be declared. The basic process of content analysis is to bring related or similar concepts and themes together, and to interpret this knowledge for readers as understandably (Yıldırım & Şimşek, 2016).

Qualitative research data is analyzed under four main steps as coding data, finding themes, organizing codes and themes, and defining/ interpreting the findings. For this study, the data is analyzed by researchers in terms of these steps. In qualitative researches; credibility, transferability, dependability and conformability are used in order to supply validity and reliability for the studies (Miles & Huberman, 1994).

Findings

In this part of the study, the data was analyzed via content analysis method and the results were reported. The data collected from teachers' views were stated under three different themes. These themes were titled as 'evaluation of distance education process, 'the problems faced with distance education process, and 'suggested solutions for the problems in distance education process. Additionally, a suggested model for distance education is presented as referring the views of teachers and instructors.

As for theme namely 'evaluation of distance education process', the proficiency of process, platform and connection opportunities, distance education partners and education-teaching processes categories are determined and the codes based on these categories are presented in Table 3 with their frequencies.

Table 3: The evaluation of distance education process in terms of teachers' views

Theme	Category	Code	Frequency		
The Evaluation of Distance Education Process	Proficiency of process	Sufficient	28		
		Partly sufficient	10		
		Insufficient	18		
	Platform and Connection	Suitable solutions for process	Insufficient Platform	15	
			Technological Impossibilities	9	
			Connection advantage with EBA	9	
			TV	8	
			Online Course	8	
			Socio-economic differences	8	
			Connection problems	5	
			Partners	Collaboration with parents	12
				Student attendance	10
				Student motivation	9
	Teacher	5			
	Education-Teaching Processes	Inequality of opportunities	Continuity of Education	15	
			Interaction	10	
			Environment	7	
			Insufficient course hours	5	
			Active content	5	
Immediate feedback			5		

In the pandemic process, the views of teachers on distance education process in Turkey are categorized under four main categories as the proficiency of process, platform and connection opportunities, distance education partners and education-teaching processes. The participant teacher stated that they mainly found this process is enough for education and also they indicated that the suitable solutions have been suggested in this extraordinary process with the help of current platforms and opportunities. They also stated that there were some regional platform insufficiencies as considering the technological basis in Turkey and there were inequality of opportunities because of technological problems based on the socio-economic differences in some regions; however, continuity of education was succeeded thanks to TV channels and online courses in this process. As for one of

the most important elements of distance education process, in the category namely partners, the views on the necessity of collaboration with parents, student attendance, student motivation and the active participation of teachers were stated by the participant teachers. Additionally, in the category namely education-teaching process, the views on insufficient interaction in distance education process, more active contents in TV channel programs, improving course hours and learning environment of students at home were introduced by teachers. The participant teachers' quotations on the evaluation of distance education process are presented below;

Despite an unexpected situation, I think that there have been rapid and effective solutions and adaptations. The process has been continuously changing. However, I don't believe that the process should be conducted as being volunteering by teachers, parents and students. Volunteer teacher always had an interaction with their students.

With the help of TV, accessing to distance education was easier in this process. Yet, EBA distance education program that was based on the internet connection was not so efficient due to lack of computer and internet connection for everybody and insufficiency of using internet and computers.

Despite getting an inexperienced situation, it was successfully covered by Ministry of National Education. However, thanks to initiatives of some teachers, the process was more successfully conducted.

I see that in urban regions, maybe it was a bit effective, however, in especially rural areas of east and south-east regions of Turkey, the process could not conducted very well.

Maybe, it could have been useful; however, the process was negatively affected in term of each child due to inequality of opportunities in our country. Besides, insensibility of some parents also affected this process negatively.

I see that even if it was not effective like face-to-face education, this process was conducted in order to keep students alive in education.

It was good as for the first time. However, it can be more attractive and enjoyable thanks to games or music.

Table 4: The problems faced in distance education process in terms of teachers' views

Theme	Category	Code	Frequency
The problems in Distance Education Process	Platforms and Access	Internet access	35
		Technological impossibilities	24
		Socio-economic differences	21
		EBA access	12
		Lack of Platforms	8
		Connection problems	7
		EBA online course	4
	Partners	Technological knowledge	29
		Collaboration with parents	23
		Communication	18
		Students' interest	15
		Active participation	15
	Education-Teaching Processes	Students' motivation	10
		Assessment-Evaluation	11
		Environment	10
Feedback		10	
Interaction		10	
Course Durations		6	
Course hours		5	
Content		5	
Teaching Duration	3		

The participants teachers' views on the problems in distance education process were categorized under three main categories namely platform and access, partners and education-teaching processes. The teachers stated that the most significant problems in the category namely platform and access were lack of platforms, insufficiency of internet connection and technological opportunities based on socio-economic differences and accessibility of EBA as a main platform. As for the category of partners, they stated that teachers, parents and students did not have enough knowledge on

technology, there were some problems on collaboration with parents and there were problems due to lack of motivation, attendance and interests of students. In education-teaching processes, the participant teachers indicated that there were problems on assessment-evaluation of students, there were problems because home environment was not suitable for distance education, there were also problems because of interaction and feedback, and also insufficient course hours and durations. Besides, they emphasized that the contents and teaching duration of distance education courses conducted via TV channels were problematic in this process. The participant teachers' quotations on the problems faced in distance education process are presented below;

Although EBA was a very nice platform, I could not reach all of my students. The reason of it is, maybe, lack of internet or parents' insufficient knowledge on using technology.

Since parents did not have internet connection, only 20% percentages of the students could attend the online courses. 80% of target group could not be involved in this process.

In this process, I realized that both EBA TV contents and online courses did not attract the students. Additionally, students did not ready to learn since they were not in the classroom/school environment in this process.

The biggest problem in my area was the internet connection. I have been teaching in an area in which socio-economical conditions are not sufficient. I have some parents who have to struggle to cover their mobile phone connection prices, and they don't want to use their internet connection limits for their children's education process. Additionally, students' interest were getting lower and lower since Ministry of National Education stated that all students would pass the upper grades at the end of this process and they would not fail the class.

There is a contradiction on EBA TV connection problems and lack of internet connection for each home in terms of the equality of opportunities. Also, the early course hours in EBA TV for young learners affected their adaptation negatively.

The first problem is lack of connection for online education. Then, another problem is not having free internet connection and teachers' insufficient knowledge on using technological devices. Also, insufficiency of using alternative applications is another problem for this process.

Table 5: The participant teachers' views on the suggested solutions for the problems in distance education process

Theme	Category	Code	Frequency
Suggested solutions for the problems in distance education processes	Platforms and Access	Free internet	25
		Strong Platforms	15
		Support for technology	14
		Improving EBA	8
		Supplying equality of opportunity	7
		Control mechanisms	5
	Partners	Educating Parents	22
		Technology teaching	21
		Obligation for Attendance	15
		Collaboration with parents	11
		Educating Teachers	10
	Education-teaching Processes	Online course	22
		Rich content	14
		Improving course hours	14
		Planning course hours	12
Testing-Evaluation		10	
Organizing environment		9	
Teaching via games		8	
Rarefied classes	5		

The participants teachers' views on the suggested solutions for the problems in distance education process were categorized under three main categories namely platform and access, partners and education-teaching processes. The participant teachers suggested for the problems based on platform and access that there should be free and unlimited internet connection for each one of students, technological opportunity should be supplied in order to prevent the inequality of opportunities, EBA platform should also be improved and there should be a control mechanism for this process. In the partner category, the participant teachers suggested that teachers, students and

parents should be trained on the use of technological instruments; there should be compulsory attendance for online courses and there should be some studies on supplying collaboration with parents. In education-teaching processes, the participant teachers suggested that there should be rarefied classes for online courses, the contents of EBA and EBA TV programs should be enriched, game-based contents should also be enriched in order to activate students, learning environments of students in distance education process should be improved, and there should be some organizations on suitable testing-evaluation, daily course hours and course durations. The participant teachers' quotations on the suggested solutions for the problems faced in distance education process are presented below;

There should be some training for both parents and students on the use of internet as educational purposes. Distance education should be presented with equal opportunities and same standards in each regions of the country.

1.and 2.grade students should also be included in the online education processes and there should be at least 4 course hours as forty minutes for at least 4 times in a week. Besides, there should have been unlimited internet connection for the use of EBA. Disjointedness of EBA programs should have been overcome. Young learners should have attended online courses in EBA programs after 11 a.m.

Online courses should be supported and the hours of online courses should be organized. I know that some course hours are very early for students. I think it affects the participations of students. There are some problems on the access of EBA program. Uploading some studies can be really hard. The platform of it should be supported. Compulsory attendance of students should be supplied in this process. Parents underestimate the distance education process. There should be the effectualness of distance education.

Interactive contents can be organized for the courses. EBA library content can be enriched. Online courses via EBA can be supplied for teachers. Apart from courses, attention-intelligence activities and different games can be used to improve students' motivation. There can be some suggestions to supply internet connection for students who don't have internet access.

Although we live in technological era, there can be some studies on the effectiveness of distance education on teaching children. EBA application can be improved and the access of this program can be easier. There also can be some training programs for both us- as teachers- and the parents – mostly needed helpers by teachers- on this process.

Regularly working of primary school teachers who have been working in the control mechanism part of this process and being control by the higher authorities can improve the effectiveness of distance education.

There should be a guidance service for the parents on the field of how they can behave and how they can help to students. Some projects should be developed for technical problems and tablet pc should be delivered for disadvantaged students. With the help of internet companies, there should also be encoded internet connection for EBA and distance education. Digital literacy of teachers should be improved.

As for the question about if this pandemic process goes on for a long time, which kind of distance education program can be used for primary schools, the views of the participant teachers and the instructors meet in a common point. The participants generally suggest that there should be a new model in which the courses can be synchronized, the participation of the students for these synchronized courses should be supported, there should be some precautions to supply equality of opportunities in education, activity and game-based contents should be designed, the use of Web 2.0 tools should be used effectively, printed materials should be used in technologically insufficient regions, some portals different from EBA can be used and the needs of students who needs special education should be considered. Within this context, as referring the views of the participants, related literature and the applications of other countries; a distance education model that is designed for primary schools is presented in Figure 1. This distance education model that is designed by the researchers is discussed as three modules. Three separate modules are designed under the main titles as 'preparation for distance education', 'distance education processes and 'supporting services for distance education processes'. The success of this model depends on realizing each one of the modules. In order to have a successful and effective distance education process, preparation before the process, conducting the process as a well-planned way and supplying the supporting services during the process are the essentials of this model.

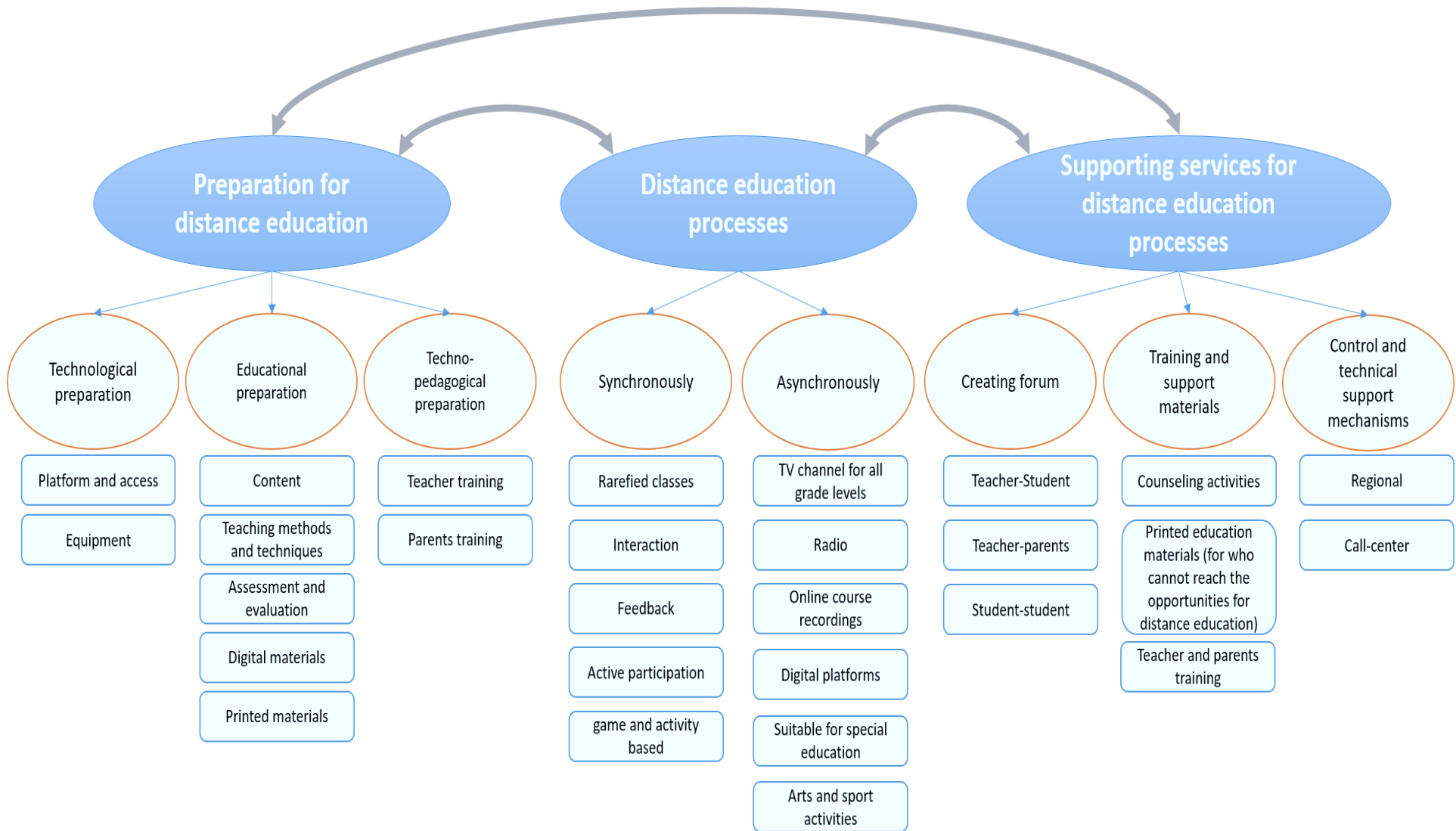


Figure 1. The distance education model proposal for primary schools

Discussion, Conclusion and Suggestions

After COVID-19 pandemic, it is seen that the applications of distance education is a basic learning source in order to solve the problems faced in education. Teaching via distance education in formal education is the first experience for Turkey. As for the success and effectiveness, it is seen that supporting platforms, adapting partners and interacting positively with partners are the key points of this new system. The participant teachers' and instructors views on evaluation, problems and suggested solutions for the new system can present some findings in terms of improving the effectiveness and quality of distance education process.

The participant teachers generally state that the distance education process applied in Turkey is enough and effective solution for the current issue. They also state that platforms and accessibility opportunities which are the significant elements of distance education are not enough during the process; however, this process is supported via TV channels and this make the attainability of distance education easier for students. In this unexpected and extraordinary issue, like all countries, Turkey is also used online platforms and TV channels to have an uninterrupted distance education process. In Turkey, MoNE take rapidly some precautions during the pandemic disease. Özer, (2020) states in the article namely Educational Policy Actions by the Ministry of National Education in the times of COVID-19 that MoNE use its all potentials to continue education and to cope with the negative effects of pandemic. Can (2020) indicates that MoNE can complete this crises period temporarily thanks to previously used online education system and EBA platform. The participant teachers also state that there should be communication and interactive between the all partners in this process and thanks to this interaction, the distance education process can be more effectively completed. Chang and Satako (2020) clarify that there are really unprecedented responsibilities for governments, teachers, students and parents in order to continue the education process after this pandemic issue. Salman (2020) shows that the experiences of parents are shaped via their socio-economical statues, digital literacy and working positions in this process. The participant teachers state that durableness of education is supplied thanks to distance education, yet inequality of opportunities has heightened because of socio-economical and regional differences. Getting students into internet environment shows the deep inequality in educational system (Anderson, 2020). It can be said that parents' level on digital literacy, not having enough time for their children's distance education experience, their socio-economic positions and their technological conditions at home can cause the inequality in education.

The views of the teachers on the problems and suggested solutions in distance education process are categorized under three main categories namely platform and access, partners and education-teaching processes. As for the most important problem in platform and access category, the teachers state that internet accessibility and lack of technological opportunities based on socio-economic differences are the most significant problems. Additionally, they state that platforms are not enough and therefore, there are some problems on EBA accessibility and online course connection in EBA platform. As for the solution of these problems, they suggest that there should be free and unlimited internet connection for students, the platforms and EBA should be improved, technological opportunities should be supplied for disadvantaged students in order to support the equality in education and there should be control mechanisms for following the studies and researches in distance education process. Can (2020) states in a study that students have some problems on attending distance education process because they do not have technological tools such as computer, tablet pc etc, and there are some problems on internet platforms and connection. Telli Yamamoto and Altun (2020) indicate that attending online courses can be problematic for students in the case of internet connection problems and not having computer or tablets. In distance education process, having technological opportunities gains importance for everybody. According to the research data namely the use of informatics technologies by household that was shared by Turkish Statistical Institute (TSI), 90.7% percentages of households have internet connection at home in 2020. The highest percentage is seen in İstanbul as 96.4%, the lowest percentage is seen in Western Blacksea region as 81.3%. In other perspective, in Turkey, 49.1% percentages of houses have stable internet connection like ADSL, wire internet; fiber etc. and 86.9% percentages of houses have mobile internet connection (TÜİK, 2020). In this case, it is seen that there are substantial number of houses which have not internet connection as general and regional parts in Turkey. The huge numbers of houses which have internet connection also

use mobile internet connection. It can be said that there can be connection and quality problems for online courses because of mobile internet connections. Additionally, it can be stated that the limits of internet connection will not be enough although students have 8 GB free internet connection supplied by MoNE. Another discussable issue here is internet connection is not enough to attend distance education. For this reason, the rates of having technological tools should be analyzed at homes. The rate of having a computer is really low in Turkey (17, 6%), the rate of having PC at homes is 37.9%; the rate of having Tablet PC at homes is 26.7%; the rate of having mobile phone is 98.7% percentages in Turkey (Arık, 2020a). In a study conducted by Yılmaz, Mutlu, Güner, Doğanay and Yılmaz (2020), 3675 parents are interviewed in 7 different regions in Turkey and according to the results of this study, 50.98% of parents say that their children do not have computer in order to attend distance education, 49.02% of parents state that their children have computers for connection; 39.50% of parents state that they have an internet connection via “both mobile phones and modem connections”, 33,53% of them say that they just have internet connection via “modem connection”; 23,68% of them indicate that they use just their “mobile phone connection” for internet access and 3.29% of parents state that they do not have any internet connection. According to this data, it can be said that there are mainly mobile phones and TV at home for attending distance education. Besides, there can be more child than one at one home, or there can be educators who need to use technological devices for their professions, or there can be households who need to use technological tools simultaneously at home, and in these cases, more computers, tablets or mobile phones etc. are needed at homes. In this scope, it can be said that students in Turkey can reach distance education just as using TV channels and they may have some problems on the accessibility of other platforms for distance education. The heavily use of TV-based distance education activities indicate that internet platforms and technological opportunities at homes should be improved in Turkey. It can be said that enhancing TV-based distance education activities, channelizing for each one of the grades, organizing some courses such as physical education, visual arts and music for TV-based distance education are very significant for the students who live in regions in which internet connection is not enough for distance education process.

As for distance education ‘partners’ category, the participant teachers state that teachers’, students’ and parents’ proficiency level of using technological devices is low; there are some problems on communicating with students, interacting with parents is not enough, students’ interests and motivation is seen as low and students do not attend distance education activities regularly. In order to suggest some solutions for these problems, the participant teachers suggest that teachers and parents should be trained for the aim of improving technology use; parents should be informed about how they can behave in distance education process, how they can help to students, how they can interact with teacher, how they can overcome the problems during this process etc., and obligatory attendance should be supplied to improve active participation of students in distance education process. Chang and Satako (2020) state that lack of training services for teachers in this pandemic process and having a huge responsibility for parents can cause social interaction or social isolation problems for students. Distance education activities in pandemic era forces all partners to be active, to solve problems, to communicate, to be creative, to think critically and to collaborate with each other (Anderson, 2020). In this case, just platform and access opportunities are not enough to conduct distance education process effectively and there is a huge responsibility for partners. The active participation, collaboration and technological knowledge of teachers, parents and students are some of the most important factors. According to Arık (2020b), there can be some students who cannot attend this process effectively and actively because of the situation that they are in although there are some precautions taken by MoNE and opportunities supplied for them. It can be said that following students, evaluating their positions and collaborating with parents are very important in order to prevent some problems that can be faced in this process. Yılmaz, Mutlu, Güner, Doğanay and Yılmaz (2020) state that many teachers especially who have been teaching face-to-face for many years and who are insufficient for the use of technological platforms are blindsided and they are stressed in this distance education process; they also have some problems on motivating students actively to this process since they have some problems on using different tools and instruments in distance education. Similarly, Anderson (2020) indicates that parents are not literate on digital knowledge to help their children in distance education process or they do not have enough time for education conducted at home. It can be said that especially latchkey children are deprived of parent guidance during this process. A call center for

parents and students is constituted by MoNE in order to support them on the problems in this process, and a specific TRT EBA channel named “On Us” is designed for parents. Yılmaz et.al. (2020) state that many of parents say that they do not know anything about the guidance services for students and parents that are designed by MoNE in pandemic process. In this case, it is seen as important that some studies and carefully conducted researches are needed on the fields of training partners in terms of techno-pedagogical issues, supporting psychological problems in this process and the importance of interaction with parents in order to supply the active attendance of students in distance education process.

In education-teaching processes category, the participant teachers state that there are some problems about testing-evaluation, feedback and interaction in distance education; the course durations are not enough and the contents of the course are suitable for the grades of students, and also the contents of the course are not enough; and the teaching level of the online courses presented via TV channels are not suitable for the level of students. As for suggestions of these problems, they suggest that the courses should be organized for rarefied classes as online, the courses should be designed as attractive, enjoyable and enriched contents with game-based teaching methods; the course hours should be reviewed and more than one courses should be included per each days; testing-evaluation activities should be organized as relevant for distance education, and parents should prepare home environment as suitable for distance education for students. Can (2020) emphasizes that there are insufficient issues on testing-evaluation and feedback in distance education process conducted via TV channels. MoNE decided in this process that the autumn semester course marks of students would be used to evaluate them in distance education process and they would be in upper grade regardless of their marks. It can be said that this decision causes a decrease on students’ attendance and interests for the online courses. For this reason, as an important element in distance education, correct testing-evaluation activities should be taken into consideration carefully in this process. Yılmaz et.al (2020) state in their study that a number of parents indicate that they dissatisfy on course hours in EBA platform and they cannot create a learning atmosphere for their children at home. The number courses especially presented via TRT EBA channels can be enriched and the course hours can be organized as considering learning conditions at home. Additionally, updating teaching programs properly for distance education and enriching contents of the courses are needed in this process.

It is foreseen that pandemic process will go on for a while and schools will continue to be affected by this process. Like all countries in the world, Turkey also is blindsided in this pandemic crisis, however Turkey struggles to continue education with rapid precautions in this period. Creating a model for distance education as considering the continuity of pandemic process is seen as significant in this era. After this global pandemic disease, countries start to take precautions in terms of their own opportunities and they try to continue distance education via technological devices like TV, radio and digital platforms as synchronous or asynchronous ways. Besides, there are some examples for countries which take different precautions in this process. Chile and Portugal, for instance, printed written materials for students who are living in disadvantaged regions and they tried to deliver these materials regularly for these students. China and France tried to supply technological devices and internet connection for students who do not have internet connection or computer (Chang & Satako, 2020). UNESCO gives some suggestions for all countries in order to conduct a successful distance education. It suggests to countries that they should make some preparations on technology, content, pedagogy and monitoring-evaluation activities in order to supply equality in education for everybody in pandemic era-distance education process. Technological preparation consists of supplying internet connection, radio, TV and digital tools for distance education activities at homes; content preparation consists of gaining access to printed teaching and learning materials which are prepared suitable for national curriculum and can be presented via online platforms, TV programs etc.; pedagogical preparation consists of improving technology usage of teachers and parents; monitoring-evaluation preparation consists of the studies based on evaluating the accessibility of distance education, teaching process and learning outcomes (UNESCO, 2020b). Within this scope, the first module of the designed distance education model in this study is seen as very significant. In distance education preparation module, it is aimed to supply equality of opportunities in education, to increase the effectiveness of distance education and to support all the education partners and to make them ready for this process. In the dimension of technological preparation, enhancing platforms and supplying technological

opportunities for students are suggested to supply the accessibility of distance education. In educational preparation dimension, it is suggested that a suitable teaching program should be organized for distance education; teaching methods and approaches, testing-evaluation criteria and digital-printed materials that are used in distance education should be determined and also developed. As for techno-pedagogical preparation dimension, it is suggested that teachers and parents should be trained; their knowledge and proficiency on the use of technology should be enriched and they are pedagogically supported for education process conducted at home. The percentages of realizing these preparations affect distance education process directly. In the second module, conducting distance education process as synchronously or asynchronously is suggested. However, the attendance of synchronous participation is suggested as much as possible; for this aim, it is suggested that the synchronous courses should be applied in rarefied classes; the interaction between teachers and students should be supported; feedback should be given simultaneously, and game or activity-based course contents should be designed for students. As for asynchronous distance education, the use of TV, radio, online course recordings and digital platforms like EBA, Morpa, Okulistik etc. is suggested in this process. Distance education presented via TV channels has a significant role for students especially who live in disadvantaged regions in terms of problems in platforms and accessibility. For this reason, it is suggested that instead of using one channel for all grades in primary school levels, there should be a specific channel for each one of the different grades. Thanks to these channels, it is also suggested that cognitive, emotional and psychomotor skills of students can be improved as designing some courses based on fine arts, sport, music and physical education. In asynchronous courses, the main subjects such as the use of sign language, subtitles and voices for visual instruments should be taken into consideration for students who need a special education. In the third module, it is aimed to be helpful for supporting guidance services, and it is also aimed that, thanks to the third module, education partners think that they are not alone in this process and they can find a support for every time. Therefore, it is suggested that three different forums should be created here and thanks to these forums, it is again suggested by the researchers that the interaction between the partners should be developed; guidance services should go on their facilities as using digital or printed materials; training and guiding services should continue for parents and teachers; printed materials should be delivered to students who cannot reach the opportunities for distance education; regional control and technical support mechanisms should be founded; the accessibility of distance education should be control via these new mechanisms; and a call-center should be installed in this process.

In conclusion, distance education and learning applications are the most significant elements in order to supply the continuity of education in pandemic process. For this reason, improving the effectiveness of distance education and finding solutions for the problems faced in this process are some of the priority targets in all countries. Turkey is, also, going on the studies in this field with the collaboration of Ministry of National Education and some other ministries. In this difficult period, a road-map is needed for the aim of directing this process correctly and effectively, and educational activities should go on being active in this process as adopting equality of opportunities in education as a basic principal. It is thought that the distance education model which is specifically designed for this study by the researchers as collecting data on the views of practitioner teachers and expert instructors, searching related literature and analyzing other researches in this issue can draw a road-map for this process.

Suggestions

- Countries should search on the cases of having informative technologies and using them in all houses in which there are active students, and in this sense, the necessary support should be supplied.
- The active participation of all partners should be ensured in distance education process and countries should always supply the necessary guidance services for partners.
- The countries, at the national level, should organize their teaching programs in accordance with distance education.
- It is needed to support of carrying out and supporting projects on the equality of opportunity in education.

- Digital platforms based on enriched and interactive contents should be presented for students and these platforms should be specific for each one of the grades in education.

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