Management Practices and Managerial Qualifications in the Period of Crisis: Problems, Opportunities, and Novelties by the Pandemic: Phase I of a Multiphase Mixed Methods Research

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Abstract. The research was carried out in order to reveal the perceptions of school administrators working in educational institutions affiliated to the Ministry of National Education regarding the COVID-19 pandemic process, the problems they experienced, the opportunities they had, the novelties they implemented and the characteristics that administrators should have in times of crisis. This research is phase I of the multi-phase mixed design, and the holistic multiple-case design, one of the qualitative research designs, was used. Semi-structured interviews were carried out with 38 school administrators working in public schools at different levels with the maximum diversity sampling method, observation and document analysis were done. As a result of the research, the problems faced by school administrators during the pandemic process, the opportunities they got for these problems and the managerial novelties they implemented at the institutional level made significant contributions to the new managerial leadership skills in the effectiveness of the management processes of the school administration in the period of crisis and the results will shed light on policy makers in making legal arrangements that will provide initiative in certain frameworks and conditions in the institution-specific practices of school administrators for crisis periods.

Keywords: covid-19, pandemic, crisis management, managerial qualifications, educational institutions

Introduction

The Covid-19 virus epidemic, which started in Wuhan, China in December 2019, became a global epidemic in a very short time and was declared a pandemic by the World Health Organization (WHO) on March 11, 2020 (WHO, 2020a; WHO, 2020b). Based on the chaos theory, the Covid-19 pandemic created a butterfly effect by causing a huge and unexpected storm all over the world as a result of the flapping of a butterfly's wings in Asia (Lorenz, 1972). The global Covid-19 pandemic, which has affected all four corners of the world, has caused a crisis period in which unexpected, unpredictable and uncertainty situations are encountered in all areas from individual and organizational, national and international, micro level to macro level. In general, both national and international perspectives, infectious diseases and epidemics, natural disasters, large-scale accidents, medical practices and problems experienced within the scope of the functioning of the health system are among the crisis

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periods (Panos, Dafni, Kostas, & Zacharoula, 2009; Yukl , 2013). In general, crisis periods are periods that are unpredictable, that the mechanisms to predict and prevent the problem are insufficient in terms of information, resources and time, that threaten the organization's achievement of its goals and its existence, that require urgent intervention, and that the intervention creates tension in decision makers and practitioners (Aykaç, 2001; Denis et al. Spika, 1993; Amount, 2004).

The pandemic process affects health, education, economy, politics, etc., all over the world. It has affected many areas and made it necessary to take many measures to protect public health, such as curfews, closing of workplaces and schools. With the closure of educational institutions during the pandemic process, face-to-face education of 1.6 billion students in all levels of education in the world, from pre-school to higher education, was interrupted in a total of 191 countries (UNESCO, 2020a; UNICEF, 2020a). In this process, many international institutions and organizations have published comprehensive reports on protecting school and community health, recommendations and guides to inform all stakeholders (MEB, 2020a,2020b, 2020c, 2020d; Ministry of Health, 2020; UNICEF, WHO, IFRC, March). 2020). It was found that these documents generally contain recommendations on how to behave in this process, consist of instructions for school administrators to fulfill and implement certain criteria, and are far from developing initiative-taking and school-specific decision mechanisms that will allow administrators to use their teaching and crisis leadership skills.

Crisis periods are the periods in which uncertainty and risks are experienced in terms of eliminating the dangerous situations created by the crisis that threaten the existence of organizations and prevent them from achieving their goals. Although all crises are evaluated in terms of their unique situations and conditions, they require a strong crisis leadership in all organizations, and a strong school leadership in terms of educational organizations. In times of crisis, school administrators need to be strong school leaders who can cope with all situations that may arise physically and psychologically, and minimize the individual and organizational harm for all stakeholders (Smith & Riley, 2012).

O'Brien and Robertson (2009) stated that in times of crisis, leaders should have qualities such as authenticity, agility, resilience, foresight, self-control, intuition and creativity; Smith and Riley (2010), on the other hand, coping with uncertainty, strong thinking skills, willingness to question events in different and holistic ways, flexible and quick decision-making, rapid transformation skills, cooperation, perseverance, taking risks and taking initiative when necessary. Harris (2020) draws attention to school leadership based on situational leadership practices in this pandemic; Hargreaves (2020) also draws attention to the importance of school leaders who can balance technology and pedagogy as well as the ability of rapid digital transformation. As in all organizations, it is seen that managers with a chaotic management approach will be more successful in times of chaos and uncertainty as well as crisis management skills in educational organizations (Bülbül and Erçetin, 2010; Sarı and Sarı, 2020). Therefore, managers are expected to have leadership roles such as managing change and transformation, adapting quickly, being open to novelty and change, order and disorder, and building a bridge between today and the future in chaos environments caused by crisis and uncertainty situations such as pandemics (Tetenbaum, 1998).

Although there are many classifications in the literature about management skills, technical skills related to objects, interpersonal or social skills related to people, conceptual skills related to ideas and concepts are seen as the most comprehensive and useful classification (Yukl, 2013). In addition, management skills or strategic management skills, which cover some aspects and are associated with managerial functions such as planning, negotiation and coaching, are also included in this classification (Hooijberg, Hunt, & Dodge, 1997; Hunt, 1991; Mumford, Campion, & Morgeson, 2007). On the other hand, in addition to management skills, there are also classifications for managerial roles and functions, in which manager behaviors and areas of activity are categorized. For example, Mintzberg (1973) classifies managerial roles as information processing roles (information dissemination, monitoring, spokesperson), decision-making roles (entrepreneur, problem-solving, resource allocation, negotiator) and interpersonal roles (liaison, representation, leader). In times of crisis, uncertainty and chaos,

managers are expected to lead more than in routine periods, and even the roles expected from leaders change. In order to manage sudden crisis periods, leaders act with principles such as anticipating and preparing for the problem in their decision processes, recognizing and anticipating the signals of the problem, determining the content and scope of the problem, directing employees with confidence and determination, informing about what has been done to solve the problem, and turning the crisis into an opportunity for change. (DeChurch, Burke,Shuffler, Lyons,Doty, & Salas, 2011; Heifetz, Grashow, & Linsky, 2009; Mitroff, 2004; Muffet-Willett & Kruse, 2008). According to Mulder and Stemerding (1963), in times of crisis, leaders need to be more assertive, directing and determined than ever before. Managers are expected to exhibit more problem-solving, guiding and less supportive behaviors during crisis periods in non-profit organizations (Peterson & Van Fleet, 2008). On the other hand, in crisis situations in military organizations, leaders need to be more directive, autocratic and target-oriented (Mulder, Ritsema van Eck, & de Jong, 1970). When the classifications and explanations are taken into account, it is seen that when the managers' fields of activity, behaviors, roles and functions are examined, they are intertwined, have similar aspects, and therefore, the skills that managers should have, may differ in times of sudden crisis and uncertainty.

When the literature is reviewed, it is seen that although there are very fast and numerous studies in the health sector to produce a solution to the COVID-19 pandemic problem, the studies on this process in the education sector are insufficient (Dehghanbanadaki, Seif, Vahidi, Razi, Hashemi, Khoshmirsafa, and Aazami,2020; Hossain, 2020). Moreover, it can be said that very little research has been done on school administrations regarding these crisis periods, which emerged when educational institutions were closed during the pandemic process and distance education, or online learning methods started to be implemented through different digital platforms (Tamrat and Teferra (2020). Some of these are studies on the investigation of international documents (Sarı ve Nayır, 2020), the problems faced by teachers in distance education during the Covid-19 process and their methods of motivating students (Çakın and Külekçi-Eryavuz, 2020), the opinions of pre-service teachers on COVID-19 (Görgülü-Arı and No-Kanat,2020), teachers' views on distance education (Bakioğlu & Çevik, 2020; Fidan, 2020).

In this research, management practices and the qualifications that managers should have, are included in the crisis periods in general and in the pandemic process in particular. In this study, the views of school administrators, who combine their managerial roles and leadership skills in terms of ensuring school effectiveness and continuity of education, during the pandemic crisis were revealed. It is thought that the results of the research will contribute to the field of education management to better understand crisis management and school leadership in times of crisis and will shed light on both top policy makers in planning and programming processes and school administrators in their implementation. In this context, it was aimed to reveal the opinions of school administrators working in official education institutions affiliated to the Ministry of National Education (MEB) regarding the pandemic process. For this purpose, answers to the following questions were sought:

1. What are the problems experienced in school management during the pandemic process?

2. What are the management opportunities revealed by the problems experienced in school management during the pandemic process?

3. What are the novelties implemented by school administrators during the pandemic process?

4. What are the qualities that school administrators should have in times of crisis or when something goes wrong?

Method *and paradigm of research*

This research was carried out as a mixed method research that includes quantitative and qualitative research approaches. Mixed methods research is based on approaches that offer alternatives to the

researcher in achieving the goals of "depth and detail", where quantitative research is weak, and "generalization and estimation", where qualitative research is weak (Clark & Ivankova, 2018; Teddlie & Tashakkori, 2015; Axinn & Pearce, 2006; Mertens, 2010; Hay, 2016; Hesse-Biber & Johnson, 2015). In this research a multi-phase mixed design or multi-phase evaluation design was used based on examination through a cycle of quantitative and qualitative research aligned sequentially with each new approach that builds on what has already been learned. The multi-phase mixed design or multi-phase evaluation design (→←) involves combining both sequential and convergent quantitative and qualitative phases in a certain time period (Creswell, 2009). The research is the first phase of the multi-phase mixed design (QUALITY → quantitative), and in this qualitative dimension, management practices and managerial qualifications in times of crisis were revealed. Then, the second phase of the multi-phase mixed design, which will be shaped based on the qualitative findings obtained in this study, will be conducted and the quantitative measurement tool (QUAN) will be developed with the multi-phase mixed design (→←).

In this study, which is the qualitative phase of the research, holistic and multiple case design, one of the case study methods, was used. In this research, it was aimed to collect detailed and in-depth information about a limited current system (situation) or multiple situations in a certain time in real life through multiple information sources, to describe the situation or to reveal the themes of the situation (Creswell, 2007). Since the boundaries between the studied phenomenon and context are not clear, it was designed as a research case study to examine the event or phenomenon in its natural life based on more than one evidence and data source (Yin, 1984). With the holistic and multiple case design, it was aimed to deal with each of the multiple cases in the scope of the study holistically and then to compare them with each other.

The paradigm of this research, which was carried out in a mixed methods design, is the functional paradigm, which thinks that the social world is relatively unchanging, concrete structures outside the consciousness of the individual, and also the hermeneutic paradigm, which tries to empathize with what people feel and tries to reveal what people want in depth within the subjectivity of human life. In fact, it can be said that this research, in which qualitative and quantitative approaches were used, was gathered under the umbrella of pragmatism, which brings together the philosophy of both realism and idealism, which is a final world view "whatever works" (Gunbayi, 2018; Gunbayi, 2020; Gunbayi & Sorm, 2020). The theoretical model of the research, prepared in this direction, is shown in Figure 1.

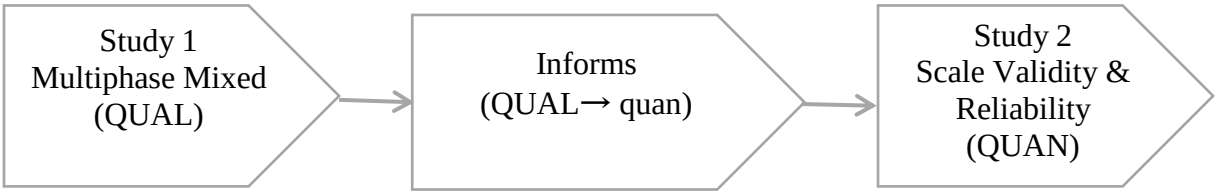

Figure 1. *Multi Phase Mixed Methods Design*

Source: Creswell, 2015

Sampling

The study group of the research consisted of 38 participants selected by the "maximum variation sampling" technique, one of the "purposive sampling" methods, among the school administrators working in 145 official educational institutions in the Muratpaşa district of Antalya province in the 2020-2021 academic year. In order to ensure diversity, the distribution of demographic variables such as task, gender, and school type was taken into account (Table 1).

Table 1.

Distribution of demographic variables

Demographic Variables		**f**
Duty	Principal	16
	Vice-principal	22
Gender	Male	26
	Femalae	12
Educational status	Undergraduate	25
	Graduate	13
School type	Pre-school (Independent)	6
	Primary School	7
	Middle School	7
	High School: General High School (Anatolian High School)	9
	High School: Vocational High School (Vocational and Technical High School)	9
Seniority	Low (10-19 years)	10
	Medium (20-29 years)	16
	High (30 years and +)	12
Seniority in management	Low (7 years or under)	15
	Medium (8-15 years)	11
	High (16 years and +)	12
Total		**38**

Data collection

Three data collection methods, namely interview, observation and document analysis, and data collection tools suitable for these methods were used. In the research, a semi-structured interview form consisting of 4 questions and questions about personal information prepared by the researcher, within the scope of the conceptual framework created by the review of the relevant literature, in accordance with the interview method, was used. On a voluntary basis, interviews were conducted individually, face-to-face and depth-oriented, in long-term interaction and using a voice recorder. In accordance with the observation method, a structured observation form consisting of 21 observation criteria and field notes section prepared by the researcher for observing the physical and social dimensions of the participants' work environment and the activities carried out and taking notes was used in the research. It was ensured that the collected data were confirmed by using the interview and observation together. Guidelines, action plans, risk maps, instructions, etc., which should be prepared for the pandemic process in accordance with the document analysis in the research. The records were evaluated as documents and used for data collection.

Ethical Procedures

Scientific research ethics were followed at all stages of the research. Scientific Research and Publication Ethics Committee Approval Certificate was obtained from Akdeniz University Institute of Educational Sciences and Department of Education for the research. Necessary permissions were obtained from the Antalya Provincial Directorate of National Education for the implementation of the research. An informed consent form was obtained from the participants before the interview. Participants were informed about the purpose of the study, its confidentiality and safety, and the absence of physical and psychological risks. Prior to the interview, permission was obtained from the participants to record the audio and they were informed that the interview recordings would be kept for seven years. Participant confirmation was obtained immediately after the interviews were transcribed. The results of the research were shared with the participants who requested it. In this study, school principals “OM”, assistant

principals “MY”; Kindergartens were coded as “A”, primary schools as “I”, secondary schools as “O”, general high schools as “GL” and vocational high schools as “ML”.

Validity and Reliability of the Research

Internal validity (credibility), external validity (transferrability), internal reliability (consistency) and external reliability (confirmability) criteria were used to ensure the validity and reliability of the study (Guba & Lincoln, 2005; Cohen., Mannion, & Morrison, 2007).). In order to ensure the internal validity of the research, triangulation of data was conducted by using observation, interview and document analysis in data collection. Data collection tools were prepared in accordance with the conceptual framework created within the framework of the relevant literature, and expert opinion was obtained by submitting them to expert review. In all stages of the research, data were collected in a deep focused and long-term interaction, acting in line with the principles of scientific research ethics. After the data collection process conducted by the researcher from an objective point of view, the interviews were transcribed and participant confirmation was obtained. In order to ensure the external validity of the research, all the processes in the research were described in detail, and the participants were determined with the purposeful sampling approach that would contribute to the best way of revealing, understanding and interpreting the researched phenomenon. In order to ensure the internal reliability of the research, the data were coded separately by the researcher and an expert experienced in qualitative research, and "Kappa Consistency Analysis" was performed to determine the level of consistency between the codings. The coding made by the researcher and the coding results made by the field expert were subjected to consistency analysis using the SPSS 23 software. As a result of the Kappa analysis, it was seen that the consistency level was .833 and according to this value, the consistency was at almost perfect level of agreement (Landis & Koch, 1977). In order to ensure the external reliability of the research, all data collection tools, raw data, coding made during the analysis phase, and the perceptions, notes and inferences that formed the basis of the report were stored for later confirmation by an external expert.

Data Analysis

In this research, theme analysis, descriptive analysis, content analysis and analytical generalization were used in the analysis of data obtained from interview, observation and document review. After the collected transcripts, the codes were extracted, themes and related sub-themes were determined depending on the relationships between these codes and theme analysis; descriptive analysis with direct quotations, without adding comments to the data and staying true to the nature of the data; content analysis with comparative and in-depth interpretation of research questions and independent variables affecting these questions; analytical generalization was made by discussing the results based on theory (Kelle, 1995; Cohen, Mannion & Morrison, 2007, Gunbayi, 2019). In this context, qualitative research "NVIVO 12 Pro" software was used in the analysis of the data obtained in the study.

Findings

A. *Findings of Interview*

A.1. Problems Experienced in School Management During the Pandemic Process

The opinions of school administrators regarding the problems they experienced during the pandemic process were gathered under the themes of "management processes", "distance education", "access to education", "health, social and psychological problems" and "suggestion". Accordingly, it was found that the problems of lack of planning, absenteeism, insufficient use of technology, lack of financial resources, adaptation process, insufficient technological tools and lack of implementation in education institutions during the pandemic process came to the fore (Table 2).

Table 2.

Problems faced by school administrators during the pandemic process

Themes	Sub-teams	f	Preschool(A)	Primary (İ)	Middle (O)	General High (GL)	Vocational High (ML)
Management Processes	Lack of planning	**30**	6	3	2	11	8
	Lack of financial resources	**18**	8	3	2	4	1
	Adaptation process	**15**	1	1	3	4	6
	Lack of communication	**11**	1	3	1	4	2
	Lack of staff	**8**	5		1	1	1
Distance Learning	Absenteeism	**30**	5	2	3	8	12
	Lack of practice	**14**	1	1	2	5	5
	Decrease in quality	**9**	2			3	4
	Indifference	**8**		2	1	3	2
	Lack of assessment and evaluation	**5**			2	3	
	Application differences between schools	**3**	3				
	Cyber security issues	**3**		3			
Access to Education	Inadequacy of technology use	**21**		4	4	10	3
	Inadequacy of of technological tools	**15**		2	6	5	2
	Lack of technological infrastructure	**8**				6	2
	The large number of individuals	**6**		3	1	1	1
Health, Social and Psychological Problems	Contamination anxiety	**8**	3		1	2	2
	Lack of socialization process	**7**	1	2	1		3
	Negative psychology	**7**		2	1	3	1
	Central exam anxiety	**2**				2	
	The meaninglessness of school	**1**				1	
	Unhealthy diet	**1**				1	
Suggestion	**The necessity of compensatory activities**	**2**					2

The problems experienced in the management processes during the pandemic process were the lack of financial resources, the adaptation process, the lack of communication and personnel, especially the lack of planning. The problems experienced in the distance education process were mainly absenteeism, lack of practice, decrease in quality, indifference, lack of assessment and evaluation, application differences between schools and cyber security. The problems experienced in access to education were mainly the inadequacy of technology use and the inadequacy of technological tools, the lack of technological infrastructure and large number of individuals. The problems experienced in terms of health, social and psychological effects were contamination anxiety, lack of socialization process, central exam anxiety, negative psychology, meaninglessness of school and unhealthy diet.

Lack of planning. Although it was experienced at all educational levels during the pandemic process, it was a management process problem that mainly occurs in high schools (general, vocational) and kindergartens. School administrators stated that the lack of planning was primarily due to the late announcement of the decisions taken by the Ministry, the frequent changes in the decisions, and even the repeated changes in a short time before the decisions were implemented. They expressed their views on this matter as follows:

> *"Since this is a new situation, these came to us gradually from above during this process, I believe it was a bit delayed [A.MY-19]", "We had some problems after every change made [I.OM-2]", "Plans have changed, It was said that applications would be accepted, they were accepted. It was said not to be accepted; it was postponed. Even though we received an application, we were going to do the exam, we wouldn't. Since it was announced very recently about this process, we had some difficulties especially in planning [ML.MY-7]", "I think the problem we experienced in this process was the uncertainties until today, I can say that those uncertainties made us extra tired. That is, because something we do is in the form of a jigsaw puzzle several times… [AL.OM-16].].*

In addition, school administrators stated that the lack of planning stemmed from the uncertainty about the procedures and practices in the management processes, the way of education and the system, as well as the uncertainties in the pandemic process. They expressed their views on this issue with the following statements:

> "Our routines were broken, we had difficulties in planning, we waited for an explanation for everything because we could not see ahead. In other words, the provisions of the regulations have been abolished, the provisions of all the legislations in the future have been abolished [A.OM-13]", "It is a bit difficult to predict the next month because it is a pandemic process. So the work to be done…what grade levels will be opened? Will there be face-to-face education? Will distance education continue? [ML.MY-7]", "Is there still some uncertainty right now…Will all classes be able to turn back normally? Or will all classes be divided into half? Or will only seniors start again in the first place? [GL.OM-16]".

On the other hand, school administrators stated that they experienced the problems arising from the lack of planning in the preparation of the online lesson plan and program, and in the planning of the schools and classes in the preparation process for face-to-face education during the partial education process. They expressed their views on this matter as follows:

> "We had some difficulties in establishing the plan program [T.MY-14]", "Planning the lessons and assigning the lessons when we switched to the online system…[GL.MY-10]", "As the school administration, we have difficulties in organizing and coordinating them. We lived through [GL.MY-21]", "Division of students and arranging classes in schools and institutions with insufficient number of classrooms and insufficient infrastructure…[ML.MY-5].","In this process, curricula, course hours, EBA , an online training, preparing their program…[T.MY-15]".

Although **absenteeism** was seen in all education levels during the pandemic process, it was a distance education problem mostly experienced in high schools (general, vocational) and kindergartens. School administrators stated that the biggest problem was the low participation in distance education during the pandemic process. They expressed their views on this issue with the following statements:

> "Student absenteeism is our biggest problem; the rate of attendance is low. The participation of students is not as high as in face-to-face education. It is estimated that the rate of participation in distance education during the pandemic is around fifty percent…[GL.MY-13]". "All of our teachers open their classes when the time comes, they make preparations, but the participation rate of our students is not at the level we want. The biggest thing about this is that although we register the attendance, it is not counted as absenteeism, so the student may have evaluated it differently [ML.OM-1]". "The fact that the Ministry said at the time that there will be no problems with absenteeism as the highest level has greatly reduced the rate of students' participation in classes in the digital environment. When we give the average in 34-person classes, we see that 3 or at most 4 people actively participate in the lessons [ML.MY-2]". "Since the classes were following the lessons of the private tutoring school, they could not ensure their attendance. In the 11th grades, it's like we can pass anyway, or because they prefer to sleep at work, because there is no obligation to attend classes, you know [GL.MY-11]". "Even though the school term has started, we have students who do not attend classes and continue their work. Most of the 11s and 12s are currently working in different workplaces in the industry [ML.OM-1]".

In addition, school administrators emphasized that while the Ministry of Education left the problem of absenteeism to the teachers' will at first, and that it was left to the parents' request in the later process, both absenteeism and indifference increased, they also emphasized that there should be compulsory participation in distance education. They expressed their views on this issue as follows:

> "In the first pandemic applications, our Ministry left the online distance education lessons at the request of the teachers. He also paid the full wages of the teachers. As an administrator, it should not be left to choice, it should be a little more challenging. There are many students who never attend classes. You know, this may be due to impossibility or indifference, but I guess it is not an impossibility but a lack of interest…[O.OM-11]". "In the first place… our school did the live lessons, but it was not compulsory [I.MY-18]". "National Education provided opportunities…some things were left to parents. Some parents sent the children, some did not [ML.OM-1]". "At times, the apathy of our students was revealed…as if we could pass it anyway, or because they preferred to sleep at work, because there is no attendance requirement…[GL.MY-11]".

Inadequacy of technology use was a problem of access to education experienced in all education levels except kindergartens during the pandemic process. School administrators stated that during the pandemic process, administrators, teachers, students and parents were inadequate in terms of using

web tools and technology for teaching lessons on digital platforms, and this situation creates a problem in accessing education. They expressed their views on this issue as follows:

> "Our teachers were not prepared for the distance education process either… They did not have the equipment… They were also inadequate in using web tools…[GL.MY-11]". "We realized that most, if not all, of teachers are inadequate in technology use…[GL.MY-12]". "As neither we nor our teachers could fully adapt to technological novelties, it was difficult for our teachers to connect with ZOOM and digital platforms at first…[GL.OM-7]". "Parents, students, teachers had problems connecting from time to time during live lessons on ZOOM… especially social media access… Teaching lessons from EBA…[O.MY-14]". "Teachers had trouble using ZOOM and other social media platforms…[İ.MY-17]".

Lack of technological tools was a problem of access to education experienced in all education levels except kindergartens during the pandemic process. School administrators stated that beyond the inability to use technology during the pandemic process, the lack of technological tools such as internet connection, tablets and computers of teachers, students and parents were effective in their difficulties in accessing education. They expressed their views on this matter as follows:

> "Some of them did not have internet… in terms of equipment… Our math teachers complained that there was no blackboard while they were teaching the lesson…[GL.MY-11]". "Our parents say that they cannot follow the lessons because the technical equipment is insufficient, there is no internet at home, there is no tablet…[T.MY-14]". "We had children without internet. [O.MY-15; GL.MY-21; İ.OM-14]". "Internet, tablets…we are in a school that is in good financial condition, but…at least 5-6 students from each class could not connect to the internet. They did not have computers…[I.MY-18]". "Our parents, who do not have tablets and internet, had difficulties in participating in online education… [O.MY-4; O.OM-3]". "…we experienced some difficulties in terms of students' access to technology in terms of children who do not have an internet connection at home, who do not have a computer or tablet…[O.OM-6]". "Students' technological infrastructure…internet connection…is a phone…computer…not having a tablet…[GL.OM-7]".".

The large number of individuals was a problem of access to education experienced in all education levels except kindergartens during the pandemic process. School administrators stated that the number of siblings studying at the same home during the pandemic process, as well as the fact that spouses were teachers and have children studying in the same home, cause problems in terms of access to education. They expressed their views on this issue as follows:

> "Three students in a house…all of them can be in primary school… our students also had problems connecting to the internet [I.MY-18]". "There are many siblings at home…[ML.OM-1]". "Having 4-5 children in the same home-schooling job... [GL.OM-7]". "The fact that the number of siblings is high, the number of people receiving education is high at home…[O.MY-4]". "When there are at least two students in different classes from the parents' point of view… It was difficult for the teachers to attend the live lesson at the same time, especially if both spouses are teachers and they have two children at school age [İ.OM-2]"..

Although **lack of financial resources** was found in all education levels during the pandemic process, it was a financial problem in the management processes mostly experienced in kindergartens. They stated that the school administrators experienced the problems arising from the lack of financial resources during the pandemic process, in order to ensure that schools comply with the "Clean School Certificate" criteria based on the Ministry's protocol with TSE. They stated that they benefited from the school budget, the Parent-Teacher Association and the allowances of the Ministry, but the closure of the fields of activity that brought income to the school, the inability to organize social activities, the inability to collect dues and donations were effective in the lack of financial resources. They expressed their views on this matter as follows:

> "In this process, we were asked to organize the school, we had great financial problems. We also took steps for the clean school project…disinfectant etc…[İ.MY-18]". "We had problems in terms of providing and maintaining hygiene. In terms of documenting this, National Education had a "my school clean certificate" by working with TSE. Since there were not enough students, the money we collected economically and the personnel you employed were not proportional. The salaries of our staff were continuing, we had problems paying them…we had a problem with the obligation to provide extra masks [A.MY-19]". "We also had financial difficulties in schools, on cleaning and hygiene materials…[O.OM-12]". "We had to make an arrangement according to the standards… football pitches, companies that provide food to school cafeterias, etc. schools have no income now. There were items of income such as canteen, cafeteria, carpet pitch, etc., these places of schools were closed, and when they were closed, revenues were reset to zero [GL.OM-16]". "Since the plans and activities could not be made to meet the needs of the school, we could not solve our financial problems from the 2019-2020 academic year [O.MY-4]". "Our biggest problem was economic problems. Because our school-parent union could not function. As a result, we had difficulties in the studies we wanted to do [I.MY-9]".

Although **adaptation process** was found in all education levels during the pandemic process, it was a management process problem mostly experienced in high schools (general, vocational) and secondary schools. School administrators stated that being unprepared and uninformed, the changing education style, and the inability to adapt to digital platforms were effective in the problems arising from the adaptation process during the pandemic process, and that this problem created adaptation difficulties for all stakeholders (administration, teachers, students, parents). They expressed their views on this issue as follows:

> "The adaptation process has been a bit of a hassle. These processes are for us and for all our students and parents…[ML.OM-4]". "The distance education process was our education style and system in this period. We saw that some of our teachers had difficulties during this distance education process [GL.OM-8]". "Every country and every institution in the world have experienced problems for us as well. The first reason was that we were caught unprepared and uninformed. As we became more informed and prepared, we managed to overcome the problems. But we didn't know how to tackle the biggest problems first. As we learned the methods and techniques of this struggle, we improved ourselves [O.OM-12]".

Although **Lack of practice** was found in all education levels, it was a distance education problem mostly experienced in high schools (general, vocational). School administrators stated that during the pandemic process, the subjects were explained with distance education on different platforms, but practical education could not be done with distance education, and the teaching and learning processes could not be done in a complete and healthy way. While school administrators stated that social activities, certain day and week activities, values education and projects for behavioral education could not be done, vocational high schools emphasized the lack and necessity of implementation. They expressed their views on this issue as follows:

> "We talked about our subjects theoretically, but we had the biggest problem there [ML.OM-1] because the children were deprived of the applications". "It was difficult for the teachers to do the one-on-one practices with the students and it was difficult to do [İ.OM-2]". "Some of our sense organs were missing in this process. They tried to learn about the importance of those sense organs in the learning process of the students, for example, they tried to learn a comfortable two sense organs without using them at all [O.OM-11]". "The subject of education is going one way, but unfortunately, the days and weeks to be celebrated in education…values education…many projects…It remains only theoretical to do them through distance education. But some things must be applied in practice. Since we are a vocational high school, distance education can only complete one of our branches. Unfortunately, we continue to have one arm missing on the practical side of vocational education [ML.OM-4]". "What we are doing now is not face-to-face education, I think face-to-face education. So the training part cannot be done remotely [GL.OM-7]".

Decrease in quality was a problem experienced in distance education mostly in high schools (general, vocational) and kindergartens during the pandemic process. School administrators stated that distance education during the pandemic process was not as efficient as face-to-face education and academic success decreased, and they also stated that distance education may be a more suitable form of education for university or older age groups. They expressed their views on this matter as follows:

> "We could not find an efficient educational process…[ML.MY-5]". "I don't think it's possible if you say whether distance education was implemented in this process, but whether it was efficient…[A.MY-16]". "He imposed distance education rather than formal education at school, I cannot say that it is very efficient…distance education can be beneficial in university or older age groups…I can say that the lessons are not very efficient in the digital

environment…I think it is not effective education because there is no one-to-one communication…[A.MY- 19]". "Whether we do distance education or try to do it efficiently, nothing can replace face-to-face education…[GL.OM-7]".

Lack of socialization process was a social and psychological problem experienced in all educational institutions except general high schools during the pandemic process. While the school administrators emphasized the necessity of socialization of students, especially in younger age groups, during the pandemic process, they also stated that the socialization process of both students and teachers was limited and incomplete. They expressed their views on this issue as follows:

> "While learning to socialize with preschoolers…make friends, share…I think it is absurd to give them through distance education…[A.MY-16]". "What you call education is face-to-face education, when you say human, it is socialization…[O.MY-14]". "The child needs sociability…to school…to the teacher…to his friends. [ML.MY-8]". "The point that we lack, and perhaps we will never complete… is about the socialization of students…[ML.OM-4]". "Teachers and students are always at the computer, they are out of the house and their socialization is limited…[ML.OM-5]".

Contamination anxiety was a problem experienced in all education levels except primary schools during the pandemic process. School administrators stated that during the pandemic process, administrators, teachers, students and parents were worried about health due to the contamination of the virus in schools. They expressed their views on this matter as follows:

> "When the parents and students open for that short term, cleaning and hygiene, here is the fear that the child might get infected with the virus in the lessons… This was also the case with the teachers. You know, if we come to the classes at first, will we get a virus with that many students? We don't even know where they came from. You know if he's acting in accordance with the rules or not…[GL.MY-10]". "Due to the contagiousness of the virus, our anxiety and fears increased when people came to school...[O.MY-4]". "Many increase in numbers in the process…[ML.OM-1]".

Negative psychology was a problem experienced in all educational institutions except kindergartens during the pandemic process. School administrators stated that the pandemic process negatively affected people's psychology, reduced the motivation of teachers and students, and they were emotionally affected by the absence of students at school. They expressed their views on this issue as follows:

> "From time to time, our teachers' motivations have also dropped… preparations were needed to be made before distance education… they needed to teach without breathing… Our teachers expressed that they are very tired. The fact that they could not even drink tea during the 10-minute breaks and that the family lived together at home brought some difficulties for them…[GL.MY-11]". "There is no teacher, no student, no sound, no voice in the school. Working in such an environment negatively affected us emotionally…[O.MY-14]". "Some parents were exposed to abusive speech and correspondence…[İ.OM-14]". "It has negatively affected people's psychology. It reduced students' motivation... [GL.OM-7]".

A.2. Management Opportunities Revealed by the Problems in School Management during the Pandemic Process

The answers of school administrators regarding the management opportunities revealed by the problems experienced during the pandemic process were gathered under the themes of "technology", "education", "education in the future", "physical and financial gain", "human and environment", "personal and professional development" and "lack of opportunity". Accordingly, in the pandemic process in educational institutions, opportunities for digital literacy, experiencing the pandemic process, values that have begun to disappear, awareness of face-to-face education, being a complement to education and improving physical spaces have come to the fore (Table 3).

Table 3.

Opportunities caught by school administrators during the pandemic process

Themes	Sub-teams	f	Preschool (A)	Primary (İ)	Middle (O)	General High (GL)	Vocational High (ML)
Technology	Digital literacy	**32**		7	3	18	4
	Compulsory supply of information technologies	**4**		1		2	1
	Strong technical infrastructure of the education system	**2**				2	
Education	Awareness of face-to-face education	**9**			3	5	1
	High socioeconomic level	**8**		3		5	
	Fast orientation process	**5**	2	3			
	Execution of project work	**3**	1	1			1
	Parent participation	**2**			1	1	
Education in the Future	Experiencing the pandemic process	**14**	1	2		6	5
	Complementing face-to-face education	**8**	1	2		1	4
Physical and Financial Gain	Improvement of physical settings	**11**	2		2	2	5
	Hygienic environment	**10**	3	3	2	1	1
	Saving	**6**				2	4
Human and Environment	Values starting to be lost	**13**	1	3	2	6	1
	Increasing sense of responsibility	**3**			1	2	
	New routines	**3**			1	2	
	Renewal of nature	**2**	1			1	
Personal and Professional Development	Online in-service training	**7**	2	1		3	1
	Reading	**4**		1		3	
	Postgraduate education	**2**	1	1			
Lack of opportunity	No opportunity	**9**	5	2	1		1

Technology opportunities revealed during the pandemic process are the compulsory supply of information technologies, especially digital literacy, and the strong technical infrastructure of the education system. Opportunities in education are mainly awareness of face-to-face education, high socioeconomic level, fast orientation process, execution of project studies and parent participation. The opportunities for education in the future are the experience of the pandemic process and the complementing face-to-face education with distance education. Opportunities for human and the environment are starting to be lost, especially the values, increasing the sense of responsibility, new routines and renewal of nature. The opportunities that schools have for physical and financial gain are the improvement of their physical settings, hygienic environment and savings. Opportunities for personal and professional development are also online in-service training, reading and postgraduate education.

Although **digital literacy** was found in all education levels except kindergartens during the pandemic process, it is a technological opportunity mostly obtained in general high schools. School administrators stated that there was an opportunity for administrators, teachers, students and parents to improve themselves in the use of information technologies during the pandemic process. They expressed their views on this issue as follows:

> *"It was an opportunity to educate ourselves. For example, let's say the digital world, we didn't know how to use it…[GL.MY-10]". "Our digital computing skills have increased a lot…all of our teachers have become information processors on this issue…[İ.MY-18]". "Keeping up with digital transformation has also been a very fast entry…[ML.MY-2]". "We have developed a lot as a computer. Since we had to, we developed distance education on new digital platforms… we also improved ourselves in digital content, we gave advice to our teacher friends… now we can do our lessons in a healthy way…we can present the necessary digital content to our students…[I.MY-9]". "I think that we have increased the speed of communication and the quality of communication with parents, students and teachers on information systems, social media, social communication networks… We have covered a great distance on informatics, and our teachers have improved themselves on computers and lectures, we, the*

administrators, interact with people in reaching out. We have all learned that we are making better progress in communication and information and data transfer, and that our students can complete the learning process without being with a teacher one-on-one from home…[O.OM-12] ".

Experiencing the pandemic process was an opportunity for the education of the future in high schools, although it is in all education levels except secondary schools during the pandemic process. School administrators stated that the pandemic process was an opportunity for teachers to conduct distance education-teaching services, for administrators to gain experience in practices in the process, and for similar crisis situations for the future. They expressed their views on this matter as follows:

> "We also gained an experience…in the next process…reaching students…parents…lesson planning, exam planning, we learned all in this process…[GL.MY-10]". "Because technology is so advanced and reveals the process of benefiting from it…the opportunity or opportunity to be prepared for future processes or to prepare more specific plans…[GL.MY-12]". In the following years, the infrastructure of a study related to distance education was formed. There was experience in this matter. At least, if online education was to be provided in addition to face-to-face education in the future, it would have such a contribution…[GL.MY-13]". "If such processes are to be experienced again in the future, we have gained experience in terms of organizing and managing the process…[İ.OM-2]". "We will see this in the coming years… I don't have time for our branch teachers' board meetings, I miss my class, parents' meetings… It will provide us with a great deal of knowledge to be held via ZOOM. It will save time and increase attendance. The current crisis will present us with many opportunities…[ML.OM-4]".

Complementing face-to-face education was an opportunity for the education of the future, which is mostly caught in vocational high schools, although it is in all education levels except secondary school during the pandemic process. School administrators stated that the gains obtained by distance education during the pandemic process would be a supporter and complement to face-to-face education in the future. They expressed their views on this issue as follows:

> "Even after the pandemic is over, we will return to formal education… to announce what we do and what we do… as an exhibition… We will continue to use this medium as effectively as we are now, in terms of creating a brand visually… [A.MY-19]". "It is an opportunity to do something in terms of distance education outside the scope of face-to-face education…an opportunity to shape the future or to use them in the future…[ML.MY-2]". "In the future… I think it will be very useful as a complement to face-to-face training [ML.OM-4]". "Even if the pandemic process ends, I think this distance education will continue somehow, at least in a supportive manner [GL.OM-8]". "I think this will come back to us as an opportunity in the future. Because we are now in the age of technology, even if the pandemic process is over, it is generally recommended that students do more homework and organize activities online, in fact… it will provide us with benefits in the long run…[İ.MY-20]".

Awareness of face-to-face education was an educational opportunity that is mostly caught in secondary schools and general high schools during the pandemic process. School administrators stated that the importance of school and teachers was noticed during the pandemic process, the awareness of the importance of face-to-face education at school increased, and the process was an opportunity to increase the dignity of teachers. They expressed their views on this issue as follows:

> "Teachers and schools are recognized by more people, the importance of schools increases, more teachers have the opportunity to be respected, appreciated and supported…[GL.MY-11]". "The school is a whole with its student, teacher, parent…[O.MY-15]". "Of course, both students, parents and all other stakeholders understood that education should be face-to-face in this regard…[ML.MY-2]". "Our parents, who could not spare time for school, understood the importance of school a little more…[O.OM-6]". "In this process… both teachers…we…both our students…and our parents…one of the things that the pandemic process has brought us is that the education at school is really important…[GL.OM-7]".

Improvement of physical settings was an opportunity for physical and financial gain, mostly in vocational high schools, although it is at all educational levels except secondary school during the pandemic process. School administrators stated that the pandemic process created an opportunity in terms of maintenance, repair and arrangement works for the physical spaces of the school that were delayed or could not be found due to the intensity of the normal process of the school. They expressed their views on this issue as follows:

> "Some opportunities have been obtained for the physical maintenance of the school… such as the maintenance of the warehouses, the placement…[ML.MY-1]". "The continuation of the summer maintenance for the school can now be done. As an opportunity…archiving organization, warehouse organization…[ML.MY-3]". "It was a great opportunity to improve the school's physical condition. Because during the day there are no teachers… students… personnel, the school building is empty. We worked in a very comfortable environment in order to improve the physical condition of the school together with the friends in our school's auxiliary services class... We organized such things, whether the school's archives… warehouses…[O.OM-11]". "In this process, we have done the maintenance and repair works of the school comfortably [GL.OM-16]".

Values to be lost was an opportunity for people and the environment, mostly in general high schools, although it was at all educational levels during the pandemic process. School administrators stated that during the pandemic process, there was an opportunity for people to think about the present and the future, to understand the value of each other, to understand values such as freedom, unity and togetherness, and to spare time for family members. They expressed their views on this issue as follows:

> "People…had the opportunity to review their behavior and habits…After the epidemic, they started to think about what kind of world they would like to shape their new lives…after the epidemic…they started to think about what kind of world they wanted…they started to listen to themselves more, to spend more time with their families… became the subject of…[GL.MY-11]". "In order for people to understand each other's values more… we all missed each other a lot… families missed each other… I think we got opportunities for unity and togetherness…that everything was empty…when health was an issue, everything could be pushed aside…[I.MY-18] ". It has been an opportunity for us to work alternately and flexibly and to take care of our family and children [O.MY-4]". "In this process, we realized how important freedom is for people…we realized how valuable the values we have so far are…[GL.OM-8]".

A.3. Novelties Implemented by School Administrators in the Pandemic Process

The answers given by the school administrators regarding the novelties applied during the pandemic process were gathered under the themes of "education", "online management processes", "pandemic" and "lack of novelty". Accordingly, novelties such as online meeting in general, new standards for schools, online psychological counseling and guidance, distance education and online bureaucratic procedures came to the fore in the pandemic process in educational institutions (Table 4).

Table 4.

Novelties Implemented by School Administrators in the Pandemic Process

Themes	Sub-themes	f	Preschool (A)	Primary (İ)	Middle (O)	General High (GL)	Vocational High (ML)
Education	Online psychological counseling and guidance	**14**	1	1	1	8	3
	Distance learning	**12**	4	1	1	3	3
	Online practice exam	**11**			4	6	1
	Support programs	**9**	1			5	3
	EBA support point	**8**		1	4	1	2
	Academic content production	**6**				5	1
	New computing platforms	**5**	1		2	1	1
	pandemic education	**4**	1	2			1
	Tablet supply	**4**			2	1	1
	Online education courses	**3**		2		1	
	Project that complies with scientific criteria	**1**				1	
Online Management Processes	Online meeting	**15**		8	1	3	3
	Online bureaucratic procedures	**10**		3	2	1	4
Pandemic	New standards for schools	**14**	2	3	1	4	4
	Extra disinfectant material	**4**	1		1	1	1
	Newness of the process	**4**	1			1	2
	Role in support groups	**1**				1	
Lack of novelty	No novelty	**5**	1		2		2

Novelties implemented to online management processes during the pandemic process. online meetings and online bureaucratic procedures. Novelties applied to education were mainly online psychological counseling, guidance and distance education, online practice exams, support programs, EBA support point, academic content production, new computing platforms, pandemic education, tablet supply, online education courses and projects that comply with scientific criteria. The novelties implemented in terms of the pandemic were primarily bringing a new standard to schools, extra disinfectant material, newness of the process and support groups.

Online meeting was a novelty in terms of management processes in all educational institutions except kindergartens during the pandemic process. School administrators stated that they held online meetings with teachers and parents on different platforms during the pandemic process and that this was a novelty in terms of online management processes. They expressed their views on this matter as follows:

> "As the school administration… we held remote meetings with our teachers…[İ.MY-18]". "We held our meetings online…[İ.MY-9]". We held all the meetings at the school on different platforms… With the parents… We held the meetings with the teachers using digital infrastructures…[ML.OM-1]". "We held remote parent meetings, we were included in our teachers' parent meetings…[İ.OM-14]". "We held frequent meetings with parents and teachers [GL.OM-8]".

New standard for schools was a novelty implemented in all educational institutions during the pandemic process. School administrators, during the pandemic process, ensure that the criteria brought by the schools with the "My School is Clean Certificate" within the framework of the protocol of the Ministry of National Education with the TSE, all the practices made in schools on cleaning, hygiene, mask and distance, the disinfectant and fever-measuring instruments provided to the school, the use of all areas of the school. They stated that the disinfection process, the implementation of the LFIH (Life Fits Into Home) code and the isolation room were novelties in terms of bringing new standards to schools. They expressed their views on this issue as follows:

> *"We bought a disinfectant machine… How to treat students with this disinfectant, hand washing instructions… We put automatic disinfection machines, there are thermometers. There are disinfection tools in the classrooms…[İ.MY-22]". "Pedal bins in the classrooms…waste boxes and recycling bins were placed on each floor. More cleaning, hygiene and spraying...Warning information boards, visual signs and writings in the corridor and garden for social and physical distances... Areas showing the physical distance to the ceremony area in order to maintain the distance between classes during the face-to-face gradual education process... Fire measurement and disinfectant at the entrance by the security guard , LFIH code inquiry… Parents were not allowed into the school garden. Disinfectant was applied twice a week. One person was taken to the administrative chambers and interviews were held. Tea, etc. catering events were abolished or disposable cups were used…[O.MY-4]". "We implemented a lot of novelties, in terms of cleaning-hygiene. In terms of safety at school… isolation room… use of masks and gloves…our disinfectants…the use of cleaning materials, the places where they are used, their purposes, these are twofold different…[ML.OM-5]". "Even in our own room, we glued things in some places as soon as we sat down. We have made new arrangements in all the classrooms of the school…the library, the conference hall, etc…[GL.OM-16]". "We organized the school according to the pandemic process, we did our disinfection processes very well…[İ.MY-18]". "Aware of hygiene, physical novelties in hygiene, such as instruction tables, on the wet floors of the school, in the sinks, etc. We have carried out more rigorous procedures in places of interest…[ML.MY-1]". We did it in the criteria of "My school is clean certificate"…[A.MY-19]". "Our school is being disinfected…we received a clean school certificate…[GL.MY-11]". "In line with the information received from our ministry, we reviewed the entire current situation of our school. We have posted the necessary notices almost all over our school. We provided disinfectant materials…[ML.OM-1]".*

Online psychological counseling and guidance services were a novelty in education in general high schools, although it is at all educational levels during the pandemic process. School administrators stated that during the pandemic process, it was a novelty in terms of psychological counseling and guidance to increase the motivation of teachers and students, to ensure participation in distance education, to communicate with parents, and to make meetings and visits online. They expressed their views on this matter as follows:

> *"We tried to increase the motivation of our teachers… by saying that we will overcome this temporary process…[GL.MY-11]". "We tried to give our teachers in-service training, like in-school seminars…[GL.MY-21]". "Our psychological counselor teachers…in previous years…the emphasis was on unsuccessful students in*

schools…this year we did something different. Our advisor teachers called all of our students one by one… they called them to increase their moral motivation, they contacted them…[GL.OM-7]". "As long as distance lessons continue…rewarding our top 10 students…motivating our students in terms of increasing their adaptability…[ML.MY-7]". "We reach the parents of the students either via SMS or whatsapp message, either by the classroom teachers or by the guidance counselors…[ML.MY-5]". "We have had our teachers teach our students digitally… with their mentor teachers, they have been trained remotely at schools…[ML.OM-1]". "We held all our meetings as online meetings…we tried to support parents…in terms of moral motivation. As administrators, we all attended these meetings…[İ.MY-20]". "Remote home visits are now being made. There were home visits, which we did remotely [A.OM-13]".

Distance Learning was a novelty in education at all educational levels during the pandemic process. School administrators stated that the change in the way of education during the pandemic process and the transition to online education was the biggest novelty in terms of distance education. They expressed their views on this issue as follows:

"Online education as novelty…[GL.MY-11]". "The biggest novelty is Online lessons [O.OM-11]". "The primary novelty we have implemented during the pandemic process is the transition to online education, that is, our distance education is new for us... [A.OM-10]". "This new process imposed on us distance education rather than formal education in terms of education…[A.MY-19]". "We started distance education by organizing all our teachers in the first 5 days from 13 March 2020, when the pandemic started…[ML.OM-5]". "The distance education process was our way of education and our system in this period…[GL.OM-8]".

Online bureaucratic procedures were a novelty in management processes in all educational institutions, except kindergartens, during the pandemic process. School administrators stated that they communicated announcements, official articles and correspondence about teachers and parents online through different digital platforms during the pandemic process, and that this was a novelty in terms of bureaucratic procedures. They expressed their views on this matter as follows:

"We made all the announcements, correspondence and communication on the internet…[İ.MY-17]". "As the school administration, we have notified…notified…to our teachers via whatsapp, especially regarding the syllabus…we have published the class schedules…teacher schedules on our school website…we have informed…we have communicated…[ML.MY-5]". "We normally distributed petitions to all elective courses…in this process, we sent them from the Google survey application…[O.OM-12]". "While we have always had our parents send documents and have them signed, now we have practiced sending and receiving documents remotely…[İ.OM-14]". "On the subject of elective courses, online courses have been chosen… The school's web page has been used more actively. All announcements were made on the school's whatsapp page and the results were received…[O.OM-3]".

A.4. The qualities that school administrators should have in times of crisis or when something goes wrong

Responses of school administrators regarding the qualities they should have in times of crisis or when something goes wrong were gathered under the themes of "personal traits", "conceptual skills", "interpersonal social skills", "technical skills" and "professional skills" (Table 5).

Table 5.

Qualifications that school administrators should have in the times of crisis or uncertainty

Themes	Sub-themes	f	Preschool (A)	Primary (İ)	Middle (O)	General High (GL)	Vocational High (ML)
Personality Traits	Common sense, calmness, coolness	**12**	3	2	2	3	2
	Young, dynamic	**2**					2
	Humble	**1**	1				
	Self-sacrificing	**1**	1				
	Self-confident	**1**				1	
	Positive thinking	**1**					1
Conceptual Skills	Quick and analytical thinking	**9**	2	3	1	2	1
	Quick decision making and implementation	**8**	1	1	1	3	2
	Identifying and solving the problem correctly	**8**		3	1	4	
	Initiative, responsibility and risk taking	**7**	1	2		1	3
	Predictive	**4**				2	2
	Solution oriented	**3**	1		1	1	
	Learning from mistakes	**1**					1
	Determination	**1**		1			
Interpersonal Social Skills	Effective communication	**15**	1	1	3	5	5
	Leadership	**12**	4	5	1	1	1
	Cooperation	**10**		3	1	4	2
	Empathy skill	**8**	1	1	1	3	2
	Teamwork	**6**			2	3	1
	Democracy	**2**		1			1
	Being fair	**1**			1		
	Giving confidence	**1**		1			
Technical Skills	Crisis management	**10**	1	3	2	2	2
	Novelty and openness to change	**7**	2	1		2	2
	Organizing - coordination	**5**	2	2			1
	Using technological tools	**4**			1	2	1
	Planning	**3**		2		1	
	Time management	**2**		1			1
	Creating organizational culture and climate	**1**	1				
Professional Skills	Experience	**7**	2	1	2	2	
	Competence	**6**	1	1		2	2
	Merit	**4**	1		1	1	1

In this research, the managerial qualifications required in educational institutions in times of crisis or when something goes wrong came into prominence as follows; effective communication, leadership, crisis management, quick and analytical thinking, quick decision making and implementation, Identifying and solving the problem correctly, empathy skills, initiative, responsibility and risk taking, common sense, calmness and coolness. Interpersonal social skills that managers should have in times of crisis were effective communication and leadership, cooperation, empathy skills, teamwork, democracy, being fair and giving confidence. The conceptual skills that managers should have in times of crisis were the ability to think quickly and analytically, to make and implement decisions quickly, to identify and solve the problem correctly, to take initiative, responsibility and risk, to be predictive, to be solution-oriented, to see mistakes as learning opportunities and to be determined. The technical skills that managers should have in times of crisis were crisis management, openness to novelty and change, organization and coordination, using technological tools, planning, time management, creating organizational culture and climate. The personality traits that managers should have in times of crisis were prudence, calm and cool, young, dynamic, humble, self-sacrificing, self-confident and positive

thinking. In addition, other qualities that managers should have in times of crisis were experience, competence and merit as professional skills.

Although **effective communication** was emphasized in all educational institutions, it was an interpersonal social skill that managers should have in times of crisis, which was mostly indicated by managers in high schools. School administrators stated that having effective communication skills with all stakeholders is an interpersonal social skill that administrators should have in times of crisis. They expressed their views on this issue as follows:

> *"To be able to reach and address this complex, which includes everything from teachers to students, parents and assistant staff…to communicate with every part of the school even in times of crisis…[GL.MY-11]". "The ability to communicate…with the ability to communicate in accordance with different human structures…[GL.MY-12]". "Human relationship, communication is versatile in every sense…[O.MY-15]". "The one with good communication and dialogue…otherwise things get messy…it could become an even bigger crisis…[ML.MY-3]". "Communication skills are higher…[ML.MY-7]". "Constructive communication skills…[İ.OM-2]". "To be able to use and implement communication with teachers, parents and students in a timely manner…[O.OM-3]". "Communication skills that both apply the rules and have the ability to tell others that those rules should be applied…[ML.OM-4]". "The dialogue between teachers, parents and students definitely needs to be strong…[GL.OM-8]".*

Although **leadership** was emphasized in all educational institutions, it is an interpersonal social skill that administrators should have in times of crisis, mostly indicated by administrators in kindergartens and primary schools. School administrators stated that guiding, motivating, visionary, contemporary, innovative, unifying and constructive leadership characteristics were an interpersonal social skill that administrators should have in times of crisis. They expressed their views on this matter as follows:

> *"Must be a complete leader…[T.MY-15]". "Leader, able to lead…[A.MY-19]". "Decisiveness… planning ability… Must have high motivational power… Must be able to drag teachers, students, parents after it…[İ.MY20]". "Leadership…unifying, constructive, leader…[İ.MY-22]". "A visionary, contemporary who will be able to follow his staff as well… The person in the leadership position in the school… should be able to contribute to the development of the institution by anticipating the next steps. It should be able to give direction and speed to institutional development by paving the way for change and individuals, the system should not be blocked, it should work…[GL.MY-6]". "Able to act and lead with the staff…[İ.MY-9]". "There should be leadership qualities, in crisis situations, it should be a manager, not a manager. Because if you try to be a manager in a crisis situation, you cannot manage this crisis and you must have a sense of self-sacrifice and most importantly, you must not have a managerial ego…[A.OM-9]".*

Quick and analytical thinking was a conceptual skill that administrators should have in times of crisis, which is emphasized by administrators in all educational institutions. School administrators stated that having the ability to think quickly, evaluate events from multiple perspectives, and having analytical thinking was a conceptual skill that administrators should have in times of crisis. They expressed their views on this matter as follows:

> *"Definitely a serial thinker…[A.MY-16]". "A person who knows how to think multi-dimensionally, who does not always think about the good aspects, who can think about all sides of the cube…[İ.MY-18]". "Managers with quick thinking and analytical ability…[O.OM-12]". "Thinking fast and practical…[ML.OM-5]". "The power of analysis must be very strong… it needs to be able to analyze the events developing in the institution very well so that it can prevent them before a crisis arises…[GL.OM-7]".*

Quick decision making and implementation was a conceptual skill that administrators should have in crisis periods, which were specified by administrators in all educational institutions. School administrators stated that quick decision-making, implementation and evaluation according to situations and conditions were conceptual skills that administrators should have in times of crisis. They expressed their views on this issue as follows:

> *"Able to make quick decisions… times of crisis require the ability to make instant decisions. Our managers must make quick decisions…[ML.MY-1]". "Planning, making decisions and implementing everything instantly…[GL.MY-10]". "He should make a quick decision and be determined…[İ.MY-20]". "Considering every situation and circumstance while making decisions…[O.OM-11]". "Making decisions quickly…and while doing so, they do not make these decisions alone…if there are different boards, commissions within the institution or by*

communicating with individuals and taking these decisions very quickly…they should examine the positive and negative aspects of the decisions…they need to turn the decisions into action…[GL.OM-7] ".

Identifying and solving the problem correctly was a conceptual skill that administrators should have in times of crisis, which was emphasized by administrators in primary schools and general high schools. School administrators stated that identifying and solving the problem correctly was a conceptual skill that administrators should have in times of crisis. They expressed their views on this matter as follows:

"Has the ability to solve problems…[O.MY-14]". "The one who owns the problem and solves the problems in case of crisis…[İ.MY-9]". "It is more appropriate for the manager to identify the problem correctly and look for the solution in the right place rather than solving every problem…[İ.OM-14]". "The one who listens and understands the problems in an unbiased, unconditional, unbiased way…[GL.OM-8]".

Taking initiative, taking responsibility and taking risks were conceptual skills that should be possessed by administrators in crisis periods, which were mostly stated by administrators in primary schools and vocational high schools. School administrators stated that being able to take initiative, take responsibility and risk is a conceptual skill that administrators should have in times of crisis. They expressed their views on this matter as follows:

"Those who take initiative and decide on their own…[İ.MY-17]". "Able to take responsibility…[A.MY-19]". "To be managers who are able to take risks when necessary, and who can implement the measures related to the risk they take in the most appropriate way…[ML.MY-2]". "He who is more agile in taking risks…[ML.MY-7]". "He who reads correctly and takes initiative…and will do…[GL.OM-16]". "A person who has the ability to cope with risks and knows how to take the responsibility when appropriate…[ML.OM-5]".

Crisis management was a technical skill that managers should have in times of crisis, which is emphasized by managers in all educational institutions. School administrators stated that having crisis management skills is a technical skill that administrators should have in times of crisis. They expressed their views on this issue as follows:

"Able to manage crisis well…[İ.MY-18]". "The administration that will know crisis management very well… that can really have A-B-C plans, manage the crisis in a very short time or find a solution…[GL.MY-21]". "Successful managers skilled in crisis management… [ML.MY-7; İ.OM-2]". "The ability to manage a crisis…[O.OM-12]". "What a good manager should do in crisis situations is to take the necessary steps before the crisis…[GL.OM-7]". "Able to solve crisis management…[A.OM-10]". "It will vary according to the type of crisis… of course, this should always be ready for it. Because you cannot gain experience without seeing the crisis…[O.OM-11]".

Novelty and openness to change were technical skills that managers should have in times of crisis, emphasized by managers in all educational institutions except secondary schools. School administrators stated that openness to novelties, rapid changes and developments was a technical skill that administrators should have in times of crisis. They expressed their views on this matter as follows:

"So many things have changed…who can adapt quickly to change…[A.MY-16]". "Innovative, adaptable to all conditions…[İ.MY-18]". "As a vision…more open to development, open to novelty…[ML.MY-5]". "It is open to novelties and changes, not strictly adhered to by strict rules, so it will be able to adapt quickly to the situation. It should be able to give direction and speed to institutional development by paving the way for change and individuals, the system should not be blocked, it should work…[GL.MY-6]". "In times of crisis, it is more innovative like this…[ML.MY-7]". "The first is to have an innovative manager…[A.OM-10]".

Experience was another skill that managers should have in times of crisis, which was specified by managers in all educational institutions except vocational high schools. School administrators stated that reflecting their experience and experience on the field is a professional skill that administrators should have in times of crisis. They expressed their views on this matter as follows:

"First of all, he is an experienced manager…[GL.MY-10]". "Having had his experience before…[GL.MY-13]". "Knowledgeable and experienced…[İ.MY-17]". "You cannot gain experience without seeing the crisis, no one can say that they have experienced it without experiencing that moment of crisis… If you do it wrong, we can cause irreversible things…[O.OM-11]". "Experience and managers who can reflect this experience on the field…[O.OM-12]". "Experienced…guiding managers…Crisis management must be good…the more crisis management has

faced, the more advanced crisis management is…[A.OM-13]". "Experience is important…Crisis management can really only be eliminated with the experience of a school administrator…[A.OM-15]".

Commonsense, calmness and coolness were a personality trait that managers should have in times of crisis, which is stated by managers in all educational institutions. School administrators stated that being calm, cool and prudent was a personality trait that administrators should have in times of crisis. They expressed their views on this issue as follows:

"Cool, able to stop and think first…[İ.MY-18]". "Common sense, calm…[GL.OM-8]". "Calm, sensitive…[ML.MY-5]". "Cold-blooded… [GL.MY-6; A.OM-13]". "Should be calm…not react instantly to anything…[O.OM-11]". "You come out of the crisis with calmness, calmness, and abilities and you relax…[O.OM-12]". "The manager will be calm but not clumsy. Instead of panicking and making mistakes, he will stay calm and do his job quickly so that the crisis does not escalate, or the reason for another crisis when I try to solve a crisis…[İ.OM-14]". "It is very important to be calm and cool and have a perspective on the event. [A.OM-15]".

B. Findings Related to the Observation Result

In this study, the observations made using the semi-structured observation form and the field notes obtained during the research were limited to the schools included in the research in the 2020-2021 academic year and the time of the research (January-March). The structured observation criteria (21 criteria) for observation were gathered under four themes: practices for the prevention of contamination, supply of equipment and materials required for the pandemic, arrangement of settings and raising awareness of the pandemic (Table 6).

Table 6.

Analysis of Observations in Schools Regarding the Pandemic Process

Themes	Observation Criteria
Practices to prevent contamination	Measurement with thermometer
	Life Fits Into Home (LFIH) code query
	Mask use
	Following social distancing rules
	Parents are not allowed in the school garden
Supply of equipment and materials for the pandemic	thermometer device
	Disinfectant machine/hand sanitizer
	Sufficient hygiene material
	replacement mask
	Closed waste bins/pedal bins
Arrangement of settings	Teachers' room/administrative rooms
	Classrooms and other departments
	open/closed areas
	EBA support room
	Waiting/isolation room
	Social distancing signs/symbols
Raising awareness of the pandemic	Mask usage rules
	Infection/hygiene rules
	Social distancing rules
	Cleaning/hygiene guidelines, checklists
	Information and training on the official website

It was observed that all of the observation criteria were complied with during the pandemic process in all schools included in the study. However, at the time of the research, it was observed that due to the lack of face-to-face training, the security guards were not present in most of the schools during this process and the LFIH (Life Fits Into Home) code query was not put into action. Only a kindergarten

and a vocational high school (vocational training center) security guard and a general high school by the relevant deputy director of the LFIH code inquiries were put into action.

The field notes obtained during the observation were as follows: It was observed that the support personnel of the school are working effectively, and the works for the renovation, maintenance and repair of the school and the improvement of the physical spaces continue, that the use of social distance and masks was observed by the administrators and employees at the school, that the students and teachers who came to the school followed the social distance rules, that physical distance and the number of people were taken care of in the administrative rooms and in the meetings to be held during the time they were at the school and that the "My School is Clean" certificate was obtained in all schools and the criteria were met.

During the observation, while waiting to meet with the principal in a primary school, I witnessed the resolution of a small uncertainty and crisis process. This is how it happened:

> *(The mother was Russian and the father was a Kazakh family meeting with the school principal. Since the family did not speak Turkish and the principal did not speak Russian, there was a problem with the language. The principal tried to communicate a little in English, but it did not work. Then they dictated the conversation on the internet and began to communicate through translation into Russian. they stated that they wanted to teach this school and they wanted help in this regard. The principal stated that they encountered such a problem for the first time. He called the District Directorate of National Education about how the procedure works. He got information about what should be done. (Equivalence conditions, residence, transfer procedures, etc.) The family's uneasiness disappeared, but the principal also stated that a teacher who speaks Russian could be more beneficial for the student in terms of the student's interests. They showed it.)*

During the interview and observation in a vocational high school, an application made by the school administration was seen in order to increase participation in distance education.

> *(There were many gift packages in the administrator's room in order to reduce absenteeism and increase the rate of participation in the lesson. Different gifts were prepared every week for the students who were in the top 10 in participation in distance education and EBA courses. For example, hairdresser's kit, books, etc. Also, teachers and teachers It was learned that the tablets provided by the school administration among themselves will be delivered to the students who do not have an intermediary for access to education).*

C. Findings Related to Document Review

Document analysis was limited to the schools included in the research in the 2020-2021 academic year and the time of the research (January-March). It was seen that some process-specific documents such as pandemic criteria, those who were caught/contacted with the epidemic, distance education, partial face-to-face education, access to education were prepared, unlike the normal functioning processes in all educational institutions, in the pandemic process "Table 7". It was stated that these criteria were prepared as a document in all schools within the scope of the Ministry of National Education's "my school is clean" document, the implementations were carried out and they were monitored and supervised by the senior management. In addition, school administrators also stated the importance of the epidemic tracking module application, which was sent to their mobile phones, regarding the students who are caught / in contact with the epidemic in preventing transmission.

Table 7.

Analysis of the Documents Prepared by School Administrations Regarding the Pandemic Process

Document Types	Documents
Pandemic criteria	"My School is Clean" certificate
	Pandemic Action Plan
	Risk group map
Infected / Contacted	Outbreak Tracking Module File
	Executive
	Teacher
	support staff
	Student
Distance Learning	Live lesson schedules
	Course attendance information
	Using the EBA support point
Partial face-to-face training	Split class lists
	Petitions of teachers/students to attend courses
	Optional participation parent petitions
Access to education	Student lists without internet access
	Student lists without technological tools

Discussion and Conclusion

In this study, the problems experienced in educational institutions during the current Covid-19 pandemic process, the opportunities created by this process and the determination of the novelties specific to this process, as well as the characteristics of the administrators in the crisis and uncertainty periods in general, were examined in terms of the opinions of school administrators.

From past to present, the world has been the scene of many crises (wars, natural disasters, accidents, epidemics, etc.) and crises have been overcome by taking necessary precautions every time, these crises have been well analyzed and lessons have been learned, good practices have been developed, creating turning points in the history of humanity and shaping the future given. The global Covid-19 pandemic, which creates a butterfly effect all over the world, affects individual and organizational, national and international, micro level to macro level, especially health, education, economy, politics, etc. While catching all sectors unprepared, it also brought managers face to face with this unpredictable and sudden uncertainty and crisis period. What problems were experienced in the reflections of this process on educational organizations, what could be the opportunities captured during this crisis in terms of education and management, and what could be the novelties applied in this process to protect health, ensure welfare, and maintain an egalitarian and effective education formed the basis of the present study. In addition, in the context of the management of this process, it was based on the study to reveal the qualities needed by the managers whose roles were recognized and which were needed in times of crisis and uncertainty.

In this study, it was found that the pandemic process brings along multidimensional problems such as management processes in educational institutions, distance education, access to education, health, social and psychological, and some of these problems had quite remarkable aspects. The problems identified in this study showed parallelism with international reports (World Bank,2020; OECD,2020; UNESCOc,2020) and some study results in the literature (Buheji&Ahmed,2020; PHA, 2020; Saavedra,2020; Sarı & Nayır, 2020).

It is was found that the problems related to the management processes during the pandemic process were the lack of financial resources, the adaptation process, the lack of communication and personnel, especially the lack of planning. The uncertainties brought by the pandemic as the basis

of the problems experienced in planning, the coordination, timing and implementation of the decisions made by the decision makers in this process, as well as the uncertainty experienced by the school administrators, who are the implementers of these, due to their inadequacy in terms of both knowledge and financial resources to manage such an extraordinary process, moreover, only It can be said that it arises from the responsibility of waiting and implementing the decisions to be taken. In addition, some of the problems in the management processes are that parents, students and teachers (OECD, 2020; UNESCOc, 2020) who are caught unprepared for emergency distance education / distance education as well as administrators can adapt to the process and have problems in communicating between all stakeholders. On the other hand, although the interruption of learning during the pandemic process (World Bank, 2020; OECD, 2020; UNESCOc, 2020) is a global problem, the problems experienced in the creation, continuity and development of distance learning in this regard (OECD, 2020; UNESCOc, 2020). It also tested the experience, management and leadership skills of the managers to determine the correct and effective solution. As every crisis period has its own characteristics, the crisis period created by the pandemic process, which has global effects, has revealed the necessity of evaluating it within the framework of its unique characteristics at both macro and micro levels, and making rapid and effective interventions. Such crisis periods require an effective crisis leadership with effective communication skills in order to prevent crisis, eliminate risks and minimize the damage caused by the crisis in all organizations (Hittle & Leonard, 2011). From the point of view of educational institutions, in addition to the duties and responsibilities and managerial skills of school administrators in their normal processes, in crisis periods, a strong school leadership that requires minimizing individual damage in terms of both organizational and all stakeholders, and solving all physical and psychological problems caused by the events and situations that arise in the process. also requires (Smith and Riley, 2012). The Covid-19 pandemic process has once again demonstrated the importance of situational leadership skills in practices for school leadership (Harris, 2020). Therefore, the pandemic process has shown the coordination and organization problems caused by the lack of planning, lack of communication and decision-making in the management processes in educational institutions; In such crisis periods, giving initiative to school administrators within certain frameworks (accountability, transparency, justice, equality, etc.), making legal arrangements that provide flexibility for schools to make policies, plans and practices in accordance with their own conditions and structure are considered important in terms of ensuring the effectiveness of management processes.

It was found that the problems related to access to education during the pandemic process were mainly due to the inadequacy in the use of technology and the inadequacy of technological tools, the lack of technological infrastructure and the large number of individuals. The problems of access to education identified in this study are emphasized in international reports (World Bank, 2020), and with the results of some studies in the literature (Ali, 2020; Alipio, 2020; Bozkurt, Jung, Xiao, Vladimirschi, Schumer, Egorov …Paskevicius, 2020; Sarı and Nayır, 2020) are supported. It is stated that during the pandemic process, there are problems in education all over the world in terms of not being able to reach technology, insufficient technological tools and inadequacy of using technology (OECD, 2020), and this situation reveals inequalities in access to education (World Bank, 2020). OECD (2001) states that the digital divide, which is an indicator of the difference between geographical areas, businesses, households and individuals with different socio-economic levels in terms of accessing information and communication technologies and using the internet, causes an information gap. This digital divide (Hargittai, 2003), which is described as the difference between those who can reach digital technologies and those who cannot, or those who use digital technologies and those who cannot, increases its impact rapidly in countries and societies as well as in different educational institutions in the same region (Zhong, 2020). On the other hand, the pandemic process shows that both students (Alipio, 2020) and teachers (Ali, 2020) need digital competencies and skills in crisis situations (Deshmukh, 2020), but they do not have these competencies and skills enough (Bozkurt et al. .,2020). Similarly, Sarı and Nayır (2020) state that technological inadequacies, inaccessibility to technology and technological inadequacies of teachers are technology-related problems experienced during the pandemic process. It is stated that there is a digital education platform such as EBA (Education Informatics Network) in our country during the pandemic process (Özer, 2020), according to 2018 PISA

data, there is an effective online learning portal in Turkey and teachers use digital technological tools in teaching (Moreno and Gortazar, 2020). Again, in the ETF-European Education Foundation (2020) report, it is stated that the Turkish Education System is shaped on the "2023 Education Vision Document", using e-platforms and ICT (information communication technology)-based programs, as well as mobile service providers providing free internet connection during the pandemic process. It is emphasized that online platforms accelerate access to distance education (ETF, 2020). Although it was stated in some indicators that the necessary infrastructure for distance education was available in our country, it was found that the situation in the field was not like that, the inadequacy in the use of technology, the inadequacy of technological tools due to the large number of individuals and the problems of access to education due to the lack of infrastructure. In this process, within the scope of the studies carried out on technology addiction and its harms for children and its negative effects on academic achievement, parents' being prejudiced against technological tools, having a limited number of technological tools and internet infrastructure as well as socio-economically disadvantaged families had access to technological tools and internet connection. It can be said that the difficulties they experienced in accessing were caused by them. In addition, the high number of students or teachers who received education at the same home during the pandemic process was among the reasons for the problems in accessing education due to the lack of technological tools. Although the Ministry provides some opportunities such as the establishment of EBA support points, tablet supply and internet connection in order to provide access to education in schools, it shows that it is not enough to solve the problems of access to education. While this process increases the inequality of opportunity in accessing distance education (Saran, 2020), the increase in the digital divide also increases learning inequality and poverty in education (Moreno and Gortazar, 2020). In the statement made by UNICEF (2020b), it is stated that the risk of dropping out of school for disadvantaged children increases and the importance of taking the necessary precautions is emphasized. In this regard, deficiencies in access to education can be eliminated by creating a "digital desert map" of places (region, school, student, etc.) that need digital access (Beaunoyer, Dupéré, & Guitton, 2020).

It was found that the problems related to the distance education process during the pandemic process were the lack of practice, decrease in quality, indifference, lack of measurement and evaluation, application differences between schools and cyber security-related problems, especially absenteeism. The problems regarding the distance education process identified in this study show parallelism with international reports and some studies in the literature. In this process, some of the problems related to the distance education process are that parents and teachers are caught unprepared for distance education, difficulties in creating, maintaining and developing distance learning (OECD,2020; UNESCOc,2020), the emergence of learning losses (World Bank, 2020; OECD, 2020). ; Saavedra,2020) and the increase in school dropout rates (World Bank, 2020; Saavedra,2020; UNESCOc, 2020). In this process, while the concern that the priority of the companies producing educational technologies is to make profit rather than increasing the quality of education (Mirrlees & Alvi, 2020), ethical concerns about the management of digital data, which emerges very quickly, also increase (Kerres, 2020). Moreover, in this process, it was found that many countries did not have any detailed policies to ensure the security of rapidly growing digital footprints (Teräs, Suoranta, Teräs, & Curcher, 2020). In this research, it was found that the students' inadequacy in terms of having technological tools (PC, computer, tablet, smart phone, unlimited internet connection, etc.) and using technology in educational institutions constitute the basis of the problems experienced in accessing distance education. However, in this process, the low participation rate of students in distance education even though they had sufficient equipment and competence, and in the distance education process, only theoretical teaching and lack of practice as well as students' indifference caused the quality of education to decrease. In this process, both the inability to carried out the one-to-one practice activities required in early childhood and basic education not only caused a decrease in the quality of the upper education level for the schools where placement is made by central examination, but also caused the lack of practical training carried out with school-industry cooperation in vocational high schools, and in the future. This will lead to employment and qualified workforce problems. In addition to stating that it is responsible for the entire curriculum by the Ministry during the pandemic process, applications such as

leaving distance education optional, passing classes without a measurement and evaluation process and not failing in absenteeism increase absenteeism and are effective in decreasing the rate of attendance and therefore the quality of education and training.

It was found that the problems experienced in educational institutions in terms of health, social and psychological effects during the pandemic process were contagion anxiety, lack of socialization process, central exam anxiety, mainly negative psychology, meaninglessness of school and unhealthy diet. It was found that individuals experience trauma and anxiety in terms of social and psychological destruction such as the risk of contamination and death, losing their relatives or staying away from them during the pandemic process (Allen, Rowan, & Singh, 2020) and even their anxiety levels increase (Cao, Fang, Hou, Han , Xu, Dong, & Zheng, 2020; Rajkumar, 2020). The pandemic process has led to an increase in students' learning loss and school dropout rates, as well as an increase in nutritional problems (Saavedra, 2020), and teachers, students and parents feel bad (World Bank, 2020; OECD, 2020; UNESCOc, 2020). While the closure of schools during the pandemic process caused many students to experience negative emotions (Karalis & Raikou, 2020), this process also shows that the quality indicator in education and training should focus on social and affective learning rather than focusing only on academic cognitive learning outcomes (Zhu & Liu, 2020).). In addition, this process will not only increase the interest, understanding and empathy expectations that individuals need as in normal times (Noddings, 2002), but it will be possible to increase the quality in the distance education process by developing models that take into account the emotional needs of the learners as well as their educational needs (Baran & AlZoubi, 2020; Robinson, Al-Freih & Kilgore, 2020). In this process, Zoom fatigue (Degges-White, 2020; Wiederhold, 2020), which is attributed to Zoom as one of the most used information platforms in the transfer of synchronous content in face-to-face education, causes negative situations such as low motivation, apathy and burnout, both for students and teachers. In this process, psychological support of parents and teachers is as critical as protecting the welfare and mental health of children deprived of socialization activities (UNESCO, 2020b). In this process, although the Ministry of National Education has published guidelines on social and psychological resilience for all stakeholders and created a psychosocial support line for students, it also shows the fact that these will not be enough, this process will take longer and it is not possible to compensate. The pandemic process includes rethinking the education system, reviewing the functions of schools, as well as the duties and responsibilities of all its stakeholders; It necessitates the development of policies to meet health, social and psychological needs.

In this study, it is stated that the management opportunities created by the problems experienced in educational institutions during the pandemic process brought along multidimensional opportunities such as technology, education, future, physical and financial gain, human and environment, personal and professional development, and that these opportunities had remarkable aspects for today and the future.

Opportunities for technology caught in the pandemic process were seen as the compulsory supply of information technologies, especially digital literacy, and the strong technical infrastructure of the education system. It is stated that the technology skills of teachers and students have increased during the pandemic process, and teachers have improved both their technical skills and pedagogical skills in order to use digital devices in education (World Bank, 2020; OECD, 2020; UNESCOc, 2020). Sarı and Nayır (2020) also state that the technology skills of teachers and students have increased in this process, and characterize them among the 21st century learning-teaching skills. Within the scope of 21st century skills, learning and novelty, digital literacy, life and career skills are the skills that learners should have in line with both the aims of education and the needs of the new age (Trilling & Fadel, 2009). In this study, while digital literacy stands out as a technological opportunity in the pandemic process, this skill is not only limited to teachers and students, but also includes students at all levels of education, teachers, administrators and parents, so this process also contributes to a compulsory and rapid digital transformation in society. In addition, it required the compulsory supply of information technologies in this process, on the one hand it was seen as a high-cost economic burden, on the other

hand, it provided technical support in the acquisition of digital-literate skills. However, the fact that there is a digital education platform such as EBA and educators who can use it during the pandemic process in our country was seen as an important advantage in providing a sustainable education in this process (Özer, 2020). Similarly, according to 2018 PISA data, it is stated that most of the school administrators have an effective online learning portal in Turkey and that teachers use digital technological tools in teaching and have technical and pedagogical competence in this regard (Moreno & Gortazar, 2020). Again, in the ETF-European Training Foundation (2020) report, it is stated that the Turkish Education System is shaped on the "2023 Education Vision Document", using e-platforms and ICT (information communication technology)-based programs, as well as mobile service providers providing free internet connection during the pandemic process. It is emphasized that online platforms accelerate access to distance education (ETF,2020). In this study, it was found that the strong technical infrastructure of the education system is an opportunity, besides making academic content production and updates, it is critical to take macro and micro-level measures to reduce the inequality of opportunity in the access of disadvantaged students to distance education, to prevent the digital divide and to eliminate learning inequality and poverty.

The opportunities obtained in terms of education during the pandemic process were seen mainly as awareness of face-to-face education, high socioeconomic level, fast orientation process, execution of project studies and parent participation. From an educational point of view, this process ensures that the importance of schools and teachers' roles in society is recognized, supported, respected and appreciated; It also provided an increase in cooperation and interaction among teachers (Winthrop, 2020). In addition, this process has brought the obligation of all stakeholders to adapt to the process very quickly, and it has been an opportunity for parents to gain competence while increasing parent participation rates in education. In this process, it was found that there is an opportunity to prepare projects that are difficult to carry out due to the limited time and opportunity that need to be carried out at school level or individually in the normal education-teaching process. On the other hand, while the high socioeconomic status of schools and students was seen as an opportunity in terms of access to education during the pandemic process, this process shows the importance of developing and implementing policies to minimize the differences between schools by increasing the opportunities of schools in disadvantaged regions and to increase the welfare level of all segments of the society.

The opportunities for the future in the pandemic process were the experience of the pandemic process and the complementarity of face-to-face education with distance education. It will continue to benefit from the experiences lived in this process, special arrangements for education and training, and the gains obtained when normal face-to-face education is returned after the pandemic (Bozkurt, 2020; Daniel, 2020). Russell (1999) states that there is no significant difference between face-to-face education and distance education when information technologies and distance education in education are structured correctly and effectively. Similarly, according to the Equity in Interaction Theory, which includes learner-learner, learner-teacher or teacher-content interaction, it is considered sufficient to provide high-quality educational interaction in any of these interaction types for a meaningful and effective learning experience (Anderson, 2003). Sarı and Nayır (2020) also state that the pandemic is an opportunity for alternative education structures such as preparing for the crisis period in schools, developing distance education programs and creating new online learning platforms. In this study, it was found that experiencing the pandemic process is an opportunity to be prepared for similar crisis periods in the future and in terms of process management. In addition, this process is an opportunity to access alternative online education platforms, distance education programs that can be used on these platforms, and academic content produced. However, in order for distance education to continue as a complement to face-to-face education in the future, it requires the redesign of the education system by evaluating it multidimensionally, and the development of blended/hybrid learning or hybrid-flexible learning models or future models combining distance education and face-to-face education.

Opportunities for personal and professional development during the pandemic process were online in-service training, reading books and graduate education. In this process, the Ministry

increased the variety of online in-service training courses it was implemented before, and the use of digital platforms needed in the process, access to academic content, effective use, etc. increased. It offered online-in-service training opportunities. This process can be seen as an opportunity for personal and professional development, both through online in-service training and individual initiatives of teachers.

Opportunities for people and the environment during the pandemic process, especially the values that began to be lost, are increased awareness of responsibility, new routines and renewal of nature. While this process causes institutions, organizations and individuals to leave their usual comfort zones, it can be considered as an opportunity to revisit their lives that they could not think about due to the intensity of their lives, and to give a new direction to their lives after the process (Buheji & Ahmed, 2020).

In addition, in this process, the opportunities that schools had for physical and financial gain were seen as improving their physical spaces, hygienic environment and savings. Establishing a hygienic environment in schools for the pandemic crisis, taking measures to prevent contagion and raising awareness of the pandemic was seen as an opportunity for schools to reach certain standards. In addition, the closure of schools and the absence of students in schools were considered as an opportunity both in terms of reducing wear and consumption expenditures of physical spaces and improving physical spaces by maintaining, repairing and arranging schools.

In this study, it was found that the novelties applied by school administrators in educational institutions during the pandemic process were applications for education, online management processes and the pandemic process.

In the pandemic process, novelties applied to online management processes were seen as making all meetings online and maintaining bureaucratic procedures online. In terms of applications for the pandemic process, the novelties were primarily bringing a new standard to schools, providing extra disinfectant material and the pandemic process being new. The novelties implemented in education were mainly providing online psychological counseling, guidance and distance education to all stakeholders, conducting online trial exams, providing support programs, creating an EBA support point, developing academic content production (academic support, e-book, digital fascicle, etc.). .), new information platforms (EBA, EBA Web portal, EBA TV, Live classroom systems, Zoom, etc.), pandemic education, tablet supply, online training courses and projects that comply with scientific criteria. The pandemic process made it necessary to conduct online exams without adequate validity and reliability studies for measurement and evaluation, instead of traditional exams or tests so far (d'Orville, 2020). The application of technology-oriented solutions within the scope of distance education to solve the problems experienced in education during the Covid-19 pandemic process is not seen as a situation specific to this process (Mishra, Koehler, & Kereluik, 2009; Rushby, 2013; Teräs, Suoranta, Teräs, & Curcher, 2020) ; Weller, 2020). The important thing is to establish a meaningful balance between technology and pedagogy in line with the objectives determined in the distance education process (Anderson, 2009).

In this study, it was found that the qualities that managers should have in crisis situations or when something goes wrong were multidimensional as personality traits, conceptual skills, interpersonal social skills, technical skills and other competencies.

It was found that the interpersonal social skills that managers should have in times of crisis, especially effective communication and leadership, cooperation, empathy skills, teamwork, democracy, being fair and giving confidence. The conceptual skills that managers should have in times of crisis were the ability to think quickly and analytically, to make and implement decisions quickly, to identify and solve problems correctly, to take initiative, responsibility and risk, to be foresighted, to be solution-oriented, to see mistakes as learning opportunities and to be determined. The technical skills that managers should have in times of crisis were crisis management, openness to novelty and change, organization and

coordination, using technological tools, planning, time management, organizational culture and climate. The personality traits that managers should have in times of crisis were prudence, calm and cool, young, dynamic, humble, self-sacrificing, self-confident and positive thinking. In addition, it was found that other qualifications that managers should have in times of crisis were experience, competence and merit. In order to manage sudden crisis periods, leaders act with principles such as anticipating and preparing for the problem in their decision processes, recognizing and anticipating the signals of the problem, determining the content and scope of the problem, directing employees with confidence and determination, informing about what has been done to solve the problem, and turning the crisis into an opportunity for change (DeChurch, Burke,Shuffler, Lyons,Doty, & Salas, 2011; Heifetz, Grashow, & Linsky, 2009; Mitroff, 2004; Muffet-Willett & Kruse, 2008). According to Mulder and Stemerding (1963), in times of crisis, leaders need to be more assertive, directing and determined than ever before. Managers are expected to exhibit more problem-solving, guiding and less supportive behaviors during crisis periods in non-profit organizations (Peterson & Van Fleet, 2008).

On the other hand, in crisis situations in military organizations, leaders need to be more directive, autocratic and target-oriented (Mulder, Ritsema van Eck, & de Jong, 1970). According to O'Brien and Robertson (2009), in times of crisis, while the competencies that leaders should possess are defined as originality, agility, endurance, foresight, self-control, intuition and creativity; according to Smith and Riley (2010), they are defined as coping with uncertainty, strong thinking skills, willingness to question events in different ways and holistically, flexible and quick decision making, rapid transformation skills, cooperation, determination, taking risks and taking initiative when necessary. In times of crisis, leaders generally act quickly and predictably, while at the same time evaluating all alternatives and carefully evaluating the measures taken and the side effects of their possible consequences (Netolicky, 2020). However, it is very difficult to predict what the best solutions, best actions and their possible effects might be in times of crises such as the Covid-19 pandemic, which have global effects and uncertainties. (Harris and Jones, 2020). From the perspective of educational organizations in this process, Harris (2020) emphasizes that school administrators should be a strong school leader based on situational leadership practices during the pandemic process, while Hargreaves (2020) states the importance of being a school leader who can balance technology and pedagogy in addition to rapid digital transformation skills.

Recommendations

While the biggest global social experiment in the world history in educational organizations with the pandemic occurred naturally with approximately 1.6 billion students (Anderson 2020; Zimmerman, 2020), it was found that the effects of this process would continue for many years. In this case, changing and transforming the existing business models, strategies and values of organizations; they need to design and implement radical changes that can realize the digital transformation towards workforce, culture and technology by coming consciously, coordinated and deeply (Brooks & McCormack, 2020). In addition, the pandemic process also reveals the need for managers with dynamic abilities, which are characterized as the ability to sense, learn and re-evaluate, who can realize rapid digital transformation (Teece, 2007). However, the rapid digital transformation brought about by the pandemic process needs to be realized not only in the technical infrastructure of educational institutions, but also in the minds of all stakeholders and to carry the vision of the institution to the future. Therefore, managers are expected to have leadership roles such as managing change and transformation, adapting quickly, being open to novelty and change, order and disorder, and bridging today and the future in chaos environments caused by crisis and uncertainty situations such as pandemics (Tetenbaum, 1998).

What needs to be done primarily in the Covid-19 pandemic process is to learn from the epidemic that is experienced and is being experienced in all fields, especially health, politics, economy and education at the individual and organizational, national and international, micro and macro levels. It is of great importance to analyze the problems experienced in this process, to transform the gains obtained through experience into opportunities, to develop applied novelties and good practices, in terms of rethinking

existing policies, planning and administrative practices for crisis management processes, both on a global, national and institutional basis. In this context, with the legal regulations to be made by policy makers, giving initiatives to school administrations and education leaders in certain frameworks in times of crisis (accountability, transparency, justice and equality, etc.), bringing flexibility in policies, planning and implementations specific to their institutions, fast and accurate effective decision mechanisms. It should also be seen as an important opportunity in terms of the operation and effectiveness of management processes. Therefore, it is thought that the detection of the problems experienced during the Covid-19 pandemic process, the opportunities obtained, the novelties applied, and the investigation of the managerial qualifications that managers should have in such crisis and uncertainty periods will be effective in overcoming the micro and macro level crises that may occur in the future. In this study, management and administrator qualifications in crisis periods during the pandemic process were examined only based on the perspectives of school administrators. The same study can be done with different sample groups, including senior administrators, teachers, students and parents, or with a more comprehensive and holistic perspective that includes all of them.

NOTE: The qualitative dimension, which was the first stage of the multi-phase mixed design, was completed in the research. Then, the quantitative dimension, which is the second stage, will be continued and scale development work will be carried out.

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