



| Research Article / Araştırma Makalesi |

Opinions of School Administrators about the Educational Impact of the COVID-19 Pandemic

COVID-19 Salgınlarının Eğitime Etkisiyle İlgili Okul Yöneticilerinin Görüşleri¹

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Keywords

1. covid-19 pandemic
2. school administrator
3. distance education
4. transformation in education
5. school

Anahtar Kelimeler

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Abstract

Purpose: This research aimed to reveal the views of school administrators regarding the transformation of the COVID-19 pandemic on the basic concepts of education.

Methodology: This research was designed according to the descriptive phenomenological pattern, which is a type of qualitative research approach. The study group of the research consisted of 43 primary and secondary school administrators. These were school administrators who attended distance education for at least 6 months during the spring 2019-2020 and fall 2020-2021 outbreak during the COVID-19 outbreak.

Conclusions: Data were collected with a semi-structured interview form. The obtained data were analyzed with the descriptive and content analysis technique. These themes were the transforming school consisted of the main themes from the traditional classroom to a digital classroom, changing student, teacher competencies, changing course material. As a result of the research, it was concluded that the concepts of school and classroom ceased to be a physical space after COVID-19, that the teacher will not lose its importance in education after COVID-19, and even gained more importance, and the digital material in education was more technological.

Suggestions: According to the findings obtained as a result of the research, the changes COVID-19 has made in education can persist after the pandemic. For this reason, while it is important to gain the competencies that will be necessary for teachers and schools to keep up with this change, continuous development and transformation should be the basic roadmap.

Öz

Çalışmanın Amacı: Bu araştırma, COVID-19 salgınının eğitimin temel kavramları üzerindeki dönüşümüyle ilgili okul yöneticilerinin görüşlerini ortaya koymayı amaçlamaktadır.

Yöntem: Araştırmada nitel araştırma yaklaşımının bir türü olan betimleyici fenomenolojik desene göre tasarlanmıştır. Araştırmanın çalışma grubu 43 ilkokul ve ortaokul yöneticisinden oluşmaktadır. Bu kişiler, 2019-2020 bahar döneminde ve 2020-2021 güz döneminde COVID-19 salgını süresince en az 6 ay boyunca uzaktan eğitime devam eden okul yöneticileridir. Veriler yarı yapılandırılmış bir görüşme formu ile toplanmıştır. Elde edilen veriler betimsel ve içerik analizi tekniği ile analiz edilmiştir.

Sonuçlar: Bulguların analizi sonucunda sırasıyla; dönüşen okul, geleneksel sınıftan dijital sınıfa, değişen öğrenci, öğretmen yetkinlikleri, değişen ders materyali ana temalarına ulaşılmıştır. Araştırma sonucunda COVID-19 salgını sonrasında okul ve sınıf kavramlarının fiziksel bir mekân olmaktan çıktığı, öğretmenin COVID-19 salgını sonrası da eğitimdeki önemini kaybetmeyeceği hatta daha çok önem kazanacağı, eğitimde dijital ve teknolojik materyalin daha çok kullanıldığı sonuçlarına ulaşılmıştır.

Öneriler: Araştırma sonucunda elde edilen bulgulara göre; COVID-19 salgınının eğitimde yaptığı değişikliklerin bazıları salgın sonrasında da kalıcı olabilir. Bu nedenle öğretmenlerin ve okulların bu değişime ayak uydurmasına gerekli olacak yetkinliklerin kazandırılması önem arz ederken sürekli gelişim ve dönüşüm temel yol haritası olmalıdır.

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INTRODUCTION

With the introduction of COVID-19 into our lives, rapid change and transformation have taken place in all areas of our lives. This change and transformation have led to the formation of a new order in the world.

This new order necessitates different transformations and changes in the field of education. This is because of the basic concepts related to education; new competencies, responsibilities, and skills have been added to the content of school, classroom, teacher, student, and course material concepts with the pandemic. The COVID-19 pandemic has given us the opportunity to adopt online learning and technologies, as education systems need to adapt quickly to emerging changes.

After the COVID-19 pandemic, education had to be online, as in all areas of life. COVID-19 pandemic can be considered as an opportunity for teachers to change their classroom practices, prepare them to participate effectively in online learning, and improve their knowledge and skills. Developing countries, in particular, need to collectively make more effort to help teachers tackle the issues of "digital literacy," "digital justice," and "equality" in their professional development (Khlaif et al., 2020).

This digitized revolution can enrich by combining educational goals and interests of digital addicted students (Ali, 2020). The five key lessons learned during the COVID-19 pandemic, a mandatory experience for many, are: Technology cannot replace a teacher's job, participation is as important as content, design matters, what the student does between classes is as important as what they do in the classroom. In fact, student-student interaction and self-study are more important than synchronized learning, which often involves an instructor (Murgatroyd, 2020a).

While it is observed that the COVID-19 pandemic rapidly affects every part of society, it is also noteworthy that a lot of research has started on this issue. In the field of education, there are many studies that investigate the effects of the COVID-19 pandemic and offer various solutions. These studies can be grouped under three headings as: "a) Inequalities caused by COVID-19 pandemic, b) problems encountered, and c) efforts of schools and their stakeholders to cope with the problems."

Distance education has made inequalities aggravated and visible in a multidimensional way. One of the studies that clearly revealed these inequalities was structured in June and August 2020 with 150 teachers, students, teachers association representatives, and parents working in primary and secondary education in five EU states (Belgium, Estonia, Greece, Italy and Poland). According to the results of this research, the barriers that caused inequalities were young age, lack of knowledge, learning autonomy, simultaneous use of digital technologies by family members (e.g., parent wire work), lack of technicality, lack of sufficient space or privacy to work at home, special education needs, low inequalities that often affect students with a socio-economic background or low socio-economic background were children with an immigrant background (especially ethnic minorities and refugees), and lack of study rooms or inadequate parental support. Also, a high-quality, fast and stable broadband connection can be added that not every student has equal access to digital education, especially in rural areas (Carretero- Gomez et al., 2020).

The limited or no internet access of families with low socio-economic status in rural areas has also affected students' readiness to learn (Alipio, 2020). This process has not only deepened inequalities. Schools, administrators, teachers, and students faced various problems. In this process, a new school leadership order without standards emerged. School administrators in the process; Preparation or improvement programs have had to lead their schools without an audit framework, key performance indicators, benchmarks, precedent, and a binding or helpful plan (Harris & Jones, 2020). The problems faced by the managers were lack of communication and knowledge, indifference of teachers, lack of planning, and technical inadequacy (Küleççi- Akyavuz & Çakın, 2020). On the other hand, the problems faced by teachers were communication, student learning, and issues with parents (Çakın & Külekçi-Akyavuz; 2020). In addition, during the COVID-19 pandemic, teachers were subjected to excessive communication load (Dilekçi, Limon, 2020). For teachers working in rural areas, the internet and technology had been limiting factors for distance education (Hamilton et al., 2020). In the study conducted by Khalif et al. (2020), it was stated that teachers were left alone in this process and had a lot of difficulties in this process, while they were not prepared for the planning of the lessons and they tried to find solutions by consulting each other and sharing their experiences. It is also emphasized that they did a lot of research on the internet to improve themselves and be more beneficial to their students, and it was seen that the COVID-19 pandemic process has deeply affected the education system. Students, on the other hand, experienced symptoms of malnutrition due to lack of access to school meals as well as anxiety due to the COVID-19 pandemic and symptoms of post-traumatic stress disorder for some students. After the schools closed, the mental and physical health of the students was greatly affected. Students needed support in the transition to "normal life" (OECD, 2020). The collected studies about the problems encountered in distance education are: the weakness of the online education infrastructure, the inexperience of teachers and the knowledge and technical deficiencies in preparing materials for students, the complex environment at home, the lack of suitable environment at home, and technological insufficiency (Murgatroyd, 2020b). Regarding the work done by the school stakeholders in this process, Ünal and Bulunuz (2020) conducted a research with science teachers and reported that teachers used Education Information Network (EIN) actively during the COVID-19 pandemic process and that distance education became more efficient with the widespread use of "live lessons." In another study, it was determined that teachers carried out supportive studies in classes in order to motivate their students to distance education during the distance education process, supported them to be hopeful for the future, made them feel the school was continuing, gave health exercises and encouraged them with good words (Çakın & Külekçi-Akyavuz; 2020). According to the results of the research conducted by Bozkurt (2020b), it has been found that the COVID-19 pandemic affects education both

directly and indirectly, and those radical improvements and strategic planning are necessary to ensure continuity in education regardless of the conditions.

In the above-mentioned research and literature review, researchers have been asked about a single component among the components that make up the school regarding the effect of the COVID-19 pandemic on education. This research was based on the basic concepts of education in the COVID-19 pandemic. It aimed to determine the opinions of primary and secondary school administrators about the meanings of the concepts of "school," "classroom," "teacher," "student," and "course material." Findings obtained from this research is expected to guide policymakers, practitioners, and researchers.

The main purpose of this research was to reveal the views of school administrators regarding the transformation of the COVID-19 pandemic on the basic concepts of education. This basic goal has been tried to be reached with the following questions.

1. What are the opinions of school administrators about the concept of "school" transformed by the COVID-19 pandemic?
2. What are the opinions of school administrators about the concept of "classroom" transformed by the COVID-19 pandemic?
3. What are the opinions of school administrators about the concept of "teacher" transformed by the COVID-19 pandemic?
4. What are the opinions of school administrators about the concept of "student" transformed by the COVID-19 pandemic?
5. What are the opinions of school administrators regarding the concept of "course material" transformed by the COVID-19 pandemic?

METHOD

Research Model

This research was designed according to the descriptive phenomenological pattern, which is a type of qualitative research approach. The main purpose of the descriptive phenomenological design is to describe the perceptions and experiences of people (Saban & Ersoy, 2016, 59). This research was based on the basic concepts of education transformed by the COVID-19 pandemic. Schools, teachers, class, students, school administrators with the perception of their experience with the course material was designed to study in-depth and in accordance with the conditions of Turkey and in the context of schools.

Working group

Which school administrators to choose in the study were decided according to the maximum diversity and criterion sampling method among purposeful sampling methods. Purposeful sampling is important in increasing transferability in qualitative research. Criterion sampling is the study of situations that meet a predetermined criterion (Yıldırım & Şimşek, 2012). The study group of the study was determined on the basis of the primary and secondary school administrators who participated in distance education in the spring period of 2019-2020 and during the autumn period of 2020-2021 COVID-19 pandemic period and were administrators in schools where simultaneous or asynchronous education was conducted in the distance education system for at least 6 months.

Within the scope of the research, 43 primary and secondary school administrators from Ankara, Hatay, Malatya, Mardin, Sakarya, Gaziantep, and Batman provinces were reached. 27.1% (f=13) of the administrators who participated in the study were secondary school administrators, and 72.1% (f=30) were primary school administrators. The managers who participated in the research were 22.9% (f=15) female and 77.1% (f=28) male. Female administrators were mostly primary school administrators.

Data Collection and Measurement Tool

In the study, a semi-structured interview form called "the views of school administrators on the educational impact of the COVID-19 pandemic", which consists of open-ended questions developed by the researcher was used to collect the data. Before preparing the semi-structured interview form, the literature was reviewed by the researchers, and the questions that were thought to be included in the interview form were determined by the researchers. The prepared interview form was presented to two researchers and one assessment expert in the field of educational sciences, and after the necessary feedback was obtained, it was checked by a linguist to check the comprehensibility of the questions. Before applying the prepared form, it was applied to four primary school administrators and two middle school administrators. The final check was made to see if the questions were clear and understandable. After all these evaluations, the semi-structured interview form was finalized. Before the data collection tool was implemented, the participants were informed, their personal consent was obtained, and it was stated that the participation was voluntary. There were three questions in the interview form that indicated the personal characteristics of the manager participants. The data were collected via "Google forms," gathered between 16-21 December 2020.

Data Analysis

Interview texts were obtained by transferring the data obtained from the participants with the semi-structured interview form to the computer environment by the researchers. Managerial interviews recorded by the researchers were analyzed by two researchers and turned into a written text. Interview texts were analyzed using descriptive and content analysis techniques. While analyzing the interview texts, four steps were followed: bracketing, phenomenological reduction, imaginary diversification, and synthesizing meaning and essences (Giorgi, 2009) (cited in Yılmaz & Şahin, 2016). The following steps suggested to be used in the analysis of the data were followed in the study:

- 1- Naming/labelling
- 2- Sorting (screening and refining)
- 3- Reorganizing and compiling, and developing categories
- 4- Providing validity and reliability steps (Saban , Koçbeker, and Saban, 2007)

Content analysis technique was used in the analysis of the data obtained through the interview forms. Internal reliability was provided by direct quotations of the participants' expressions. In the research, firstly, themes and sub-themes were formed by combining similarity and different expressions. In order to ensure the reliability of the study, the opinions of 4 researchers working in the field of educational sciences were consulted in determining the themes and sub-themes. The managers whose opinions were consulted in the analysis of data have been given code numbers such as (İYE-K; OYE-K..1.2.) In order to ensure internal reliability, the findings were given through direct quotations without comment. For reliability in the study, the themes obtained as a result of the research data and analysis process were compared with the expert opinion and findings of the literature. The responses of the administrators to the interview questions were coded by the researchers. Three academicians who are experts in this field created coding and the consistency between the coders, who filled the interview code key for each interview form.

The codes with "consensus" and "difference of opinion" were determined by the coders. The reliability formula proposed by Miles and Huberman (1994) was used in calculating the reliability of the coding. In order to ensure internal consistency, the agreement rate between coders for each theme is expected to be at least 70% (Miles & Huberman, 1994; Patton, 2002). In the study, the data obtained in the research *"at the stage of providing validity and reliability were given in detail without any comments"* (Creswell, 1998; Merriam, 1998; Miles & Huberman, 1994).

FINDINGS

As a result of the analysis of the obtained data, five main themes were reached. These themes were respectively, "transforming the school, traditional classroom to digital classroom, changing student, teacher competencies, changing course material." Sub-themes and main themes related to the main themes are given in Table 1.

Table1. Main and Sub Themes

Main Themes	SubThemes
<i>"Transforming school"</i>	Perspective before the pandemic Post-pandemic perspective
<i>"From traditional classroom to digital classroom"</i>	Perspective before the pandemic Post-pandemic perspective
<i>"Changing student"</i>	Perspective before the pandemic Post-pandemic perspective
<i>"Teacher competencies"</i>	Pre-pandemic duties and responsibilities Post-pandemic duties and responsibilities
<i>"Changing course material"</i>	Pre-pandemic course materials Post-pandemic course materials

Transforming School Main Theme

This main theme is divided into two sub-themes: The pre-pandemic perspective and the post-pandemic perspective. Administrators who participated in the research stated that the pre-COVID-19 pandemic school existed spatially, and then this situation disappeared, and the school thought lost its characteristic spatially. Direct quotations expressing the thoughts of the managers are as follows.

OYE6 *"Post-COVID-19 school (open) physical area where hygiene, cleanliness, and mask rules are applied without exception. However, there is no school concept in the distance education process, unfortunately. "*

İYE12 *"The educational institution where the planned education is done face to face, the educational institution where the planned education is followed by the institution and made online."*

İYE30 "The school, which was a spatial teaching home before, later turned out that thoughts about the place of learning were gradually demolished and learning separately from space was possible.

İYK42" The concept of school does not mean before or after COVID-19 for me. School is an institution where education and training continue. "

İYK 35" Although there were deficiencies in the education system, teacher and student were integrated under the roof of the school before the pandemic, and the curriculum of the courses was implemented in that atmosphere. After the pandemic, the concept of school was lifted. Most of the students and parents could not be disciplined. School atmosphere, unfortunately, did not occur.

"OYE32 "Before the school is the living organism, and then after it is a soulless body."

Administrators stated that before the COVID-19 pandemic, the concept of school was more of a physical space, that all activities of education and training took place in this space, and that the concept of school comes to mind first when it comes to learning and education. In summary, School before the pandemic is a concrete concept. It was stated that after the COVID-19 pandemic, it was understood that the concept of school ceased to be a physical place and that education and training could take place without being dependent on a physical location. In summary, After the pandemic, the concept of school has started to become a virtual concept.

From Traditional Classroom to Digital Classroom Main Theme

This main theme is divided into: The pre-pandemic positive/negative perspective and post-pandemic positive/negative perspectives. Administrators who participated in the research revealed that the concept of class was not spatial, as revealed by COVID-19. It can be stated that the concept of class was viewed more positively before COVID-19. Direct quotations expressing the thoughts of the managers are as follows.

İYE12 "The place where face-to-face training takes place online after COVID-19."

İYK14 "The concept of class is not spatial."

İYE19 "Before dreams were shaped, an area where hopes flourish. Next is the dead city, emptiness, and hollowness. "

İYE25 " Classroom "= A room in the school, before the COVID-19 pandemic, "Classroom" = Phone, Tablet, computer after the COVID-19 pandemic.

İYK41 "Everywhere is a classroom."

OYK31 "The classroom is a physical place and can be everywhere, but it is something that has a soul for the child."

İYE20 "The beautiful place where we have a free interaction with our children, we enjoy the most, sometimes smiles and sometimes burst into laughter. It is the place where we make chestnuts at the stove, the constant sharing, and where we dream of opening up to new worlds and fit many things in them. I, unfortunately, continue to continue all these beauties with distance education."

Administrators stated that before the COVID-19 pandemic, the managers defined the concept of the classroom more as a physical space with interaction and spirit. However, after the COVID-19 pandemic, it was stated that the classroom was transformed from being a physical space to a digital environment with interaction and spirit.

Changing Student Main Theme

This main theme is divided into: The pre-pandemic perspective and post-pandemic perspective subthemes. Administrators who participated in the research viewed the student concept negatively after COVID-19. They stated that the student had difficulty. Direct quotations expressing the thoughts of the managers are as follows.

OYE7 "The student is a demand in the old term. Student: It is the person who demands something and wants to learn. This process has increased students' responsibilities. Our children who follow their programs and work daily will be real students. "

İYE13 "While students were who came to the classroom before COVID-19, but there were those who wanted to learn afterward."

İYK16 "The generation that learns to adapt."

İYE19 "The joy of the school, little people hungry for learning. Then he lost hope, a ball of problems. "

İYE20 "Our children, with whom we shared instant feedback before COVID-19 are unfortunately on the screen nowadays. Of course, it makes us happy that they are good, but unfortunately, the students of this generation will probably get the most negative effect in distance education.

İYE25 " student "= individual willing to learn "pre-COVID-19 outbreak" student " = unwilling to learn."

İYE32 "Before, he lived in school, that he is an individual and that he is an important value. After the pandemic, he cannot breathe."

OYE31 student is being talked not learning about as the only after the child who attends school, but not going to school."

İYE35" Before the pandemic, students were coming to their school wearing their school uniforms, sitting on their desks, attending classes, getting better discipline in the classroom atmosphere, and adapting better to education. Technological impossibilities after the pandemic, lack of attendance required to attend a live lecture, lack of attendance, monotony of being in front of the

screen for a long time, a decrease in the classroom dominance of the teacher, no anxiety about grades caused the students to behave more comfortably, and the responsibility of the student decreased."

Before the COVID-19 pandemic, the administrators defined the student as the individual who was willing to learn more, better disciplined, and the joy of the school. After the COVID-19 pandemic, the administrators defined the student as the individual whose responsibility was reduced, who could not benefit from education due to technological or different impossibilities, and who realized the learning with his own will and self-control.

Teacher Competencies Main Theme

This main theme is divided into two sub-themes, these were: Pre-pandemic duties and responsibilities and post-pandemic duties and responsibilities. Administrators who participated in the research stated that the concept of the teacher was talked about more after COVID-19, and the teacher should give more places to learn technology. Direct quotations expressing the thoughts of the managers are as follows.

İYE27 "During the process, more concepts, knowledge, and technology words entered our lives. I understood that the major stakeholder of post and pre-process education is again the teacher. "

OYK31 "The teacher is everything, including a babysitter after the teaching role, but if you do not know technology, you are in trouble."

İYE32. "Giving his competencies directly and efficiently, after the pandemic, those who cannot reach the desired efficiency and professional satisfaction."

İYE34 "The necessity to follow technological developments in education has become more prominent. I think that learning should be made simpler and more understandable, and now the education model should be discussed with small groups rather than large groups. "

İYK39 "The teacher had no difficulties in demonstrating his talents by focusing before COVID-19. After COVID-19, when his own life anxiety was added to everything else, he changed to distance education with fear. "

OYE15 "The teacher, who is at the center of learning, lost this position with this process. "

İYE13 "While pre-COVID-19 teachers mostly adhere to classical and familiar methods, they have sought or developed new methods and techniques that will facilitate learning afterward."

According to administrators, before the COVID-19 pandemic, the teacher was the individual who felt more at the center of learning, professional satisfaction, and efficiency. After the COVID-19 pandemic, the teacher was an individual who needed to know technological techniques and methods, was still at the center of education, but could not sufficiently felt professional satisfaction and efficiency.

Changing course material Main Theme

This main theme is divided into two sub-themes: Pre-pandemic course materials and post-pandemic course materials. Administrators who participated in the research stated that the concept of course material was digital material after COVID-19. Direct quotations expressing the thoughts of the managers are as follows.

OYE7 "In fact, all kinds of materials that affect learning and education are indispensable that should be used whenever the place and time comes. The use of different materials has brought new perspectives to our teachers and students. "

OYK17 "While 3D materials were important before, now the importance of digital materials has increased."

İYE3 "Previously, emotional education was a part of us. Afterward, it became the technology is part of our life. "

İYE13 "While the course material was available in the school pre-COVID-19, afterward everything that facilitates learning has been material."

İYK16 "Materials that keep up with changing events."

İYE11 "It is a good education with sufficient materials beforehand, and it's like a patchy built house afterward."

According to administrators, more course materials were materials that can be used within the school before the COVID-19 outbreak. The materials used after the COVID-19 pandemic were mostly technological and digital materials.

DISCUSSION, CONCLUSION, AND RECOMMENDATIONS

In this study, which aimed to reveal the views of school administrators regarding the transformation caused by the impact of the COVID-19 pandemic on the basic concepts of education, five main themes were formed based on the findings. These themes were "the transforming school," "traditional classroom to digital classroom," "changing student," "teacher competencies," and "changing course material." Based on these main themes, the sub-themes were the pre-pandemic perspective, post-pandemic perspective, pre-pandemic duties and responsibilities, post-pandemic duties and responsibilities, perspective of pre-pandemic course materials, and post-pandemic course materials. The findings of the main themes are:

"The transforming school" and "traditional classroom to digital classroom"

The concept of school and classroom that existed spatially before COVID-19 in the main theme of the transforming school and traditional classroom to a digital classroom, after COVID-19, it has been concluded that everywhere can be schools and

classrooms than spatially. This result is consistent with Zhao's (2020) study, which stated that COVID-19 is an opportunity to rethink education findings. Rethinking should not be about improving the school; it was stated that post-COVID-19 schools and education should be reshaped with the questions of "what," "how," and "where" to learn. Because COVID-19 broke the taboo that the concept of school and classroom is a spatial place. Your school and classroom have shown the whole world that there can be any place where students and teachers interact. COVID-19 introduced the necessity of redefining the concepts of school and classroom. In addition, with a changing leadership order in this process, the school management has assumed a collective unifying role to sustain everything and everyone, based on distributed collaboration and without networked national standards (Harris, 2020b).

In summary, each component that makes up the school has been under the influence of this transformation with the change made by the COVID-19 pandemic.

“Changing student”

It has been concluded that students who came to school before and after COVID-19, children who want to learn and who can adapt. Also, findings showed that there were many problems the students have faced.

At the beginning of these problems, the students had to spend most of the day in front of the screen. Unfortunately, students who have not developed self-control may not have learned. Therefore, COVID-19 has been an opportunity for students who can realize learning.

A 13-year-old student who spoke to the New York Times newspaper made statements supporting this finding. According to Mintz (2020), a 13-year-old student has attended distance education lessons since March -23- 2020 and learned more in distance education than the lessons given in the classroom. Because this student stated that *“there were no distracting students and teachers who could not manage the classroom”* in the classroom. The student further stated that the distance education process improved his weaknesses and strengths, communicated with other learners online, and improved himself by watching the subjects he could not learn on a recorded basis. Some students stated that distance education gave them the freedom to move, fewer distractions than the classroom, and they could focus more on the lesson (Carretero Gomez et al., 2021).

In the COVID-19 pandemic, the entire responsibility of learning belongs to the student (Bozkurt, 2020b). The COVID-19 outbreak has shown that students' digital competencies were not sufficient (Deshmukh, 2020). Another study (Alipio, 2020) determined that Filipino students did not have the basic skills to operate computers and were not ready for online learning. These results have highlighted three concepts that COVID-19 should have in students. The student who has these concepts of "self-control," "flexibility," and "willingness to learn" has fulfilled all its responsibilities. Thanks to the desire to learn and the flexibility provided by distance education, and the student's self-control, learning continued outside of online hours.

“Teacher competencies”

It was found that the teacher should not lose its importance in education before and after COVID-19 and should use technology very well with new methods and techniques after the pandemic, and the technological competencies of teachers are not sufficient. Deshmukh (2020) and Bozkurt (2020b) concluded that during the COVID-19 pandemic, the digital competencies of teachers were not sufficient and that schools and teachers are not ready to adapt to the transition from traditional face-to-face learning to online learning (Beng, Wardle, Collie 2020). Hutinger, Robinson. and Schneider (2004) stated that individuals using technology are as important as technology in distance education. They underlined that successful technology use depends on teachers' wealth level and technology knowledge and that technology will not have an impact on curriculum and learning when teachers are uncomfortable with technology and its use. This pandemic process may indicate that even the latest technology in education cannot replace the teacher.

The COVID-19 pandemic has made new competencies mandatory for teachers. These are excellent domain knowledge, competent computer knowledge, communication skills, clarity of expression, emotional connection with students, other skills required to deal with the demands of online platforms, ability to solve minor problems during and after online, virtual classroom experience, patience, empathy, attentiveness to students, excellent presentation skills addressing a specific subject, and proper use of existing teaching-learning tools with user-friendly features are additional skills found to manage the online teaching process. These are critical strategies involved in motivating students, collaborating and team teaching, and creating an online classroom (Mishra, Gupta, Shree, 2020). In short, COVID-19 is a digital transformation that requires teachers to acquire new skills and competencies (Beng, Wardle, and Collie, 2020). In summary, the COVID-19 pandemic has proven once again that teachers are the foundation of education, as well as being a digital transformation that requires teachers to acquire new skills and competencies.

“Changing course material”

Pre-COVID-19 materials were usually created in school teaching materials. Afterward, it was found that digital tools and all kinds of materials that facilitate learning were used. This result fits with the finding that distance education cannot be achieved without the necessary tools and technology (Ascough, 2002). Adopting an online learning environment is not just a technical

issue. It is pedagogical. Therefore, adequate preparation of teaching materials and curriculum and assessment knowledge in online education is very important. Technology is just a means of transfer to the learner and requires closure. Therefore, in online education, Cross collaboration between teaching, content, and technology teams is required. It is a pedagogical transformation that requires rapid mobilization for students and teachers outside the classroom (CoSN, 2020). Course materials are not only concrete technologies, i.e., computers, smartphones. It also consists of educational theories, approaches, and strategies, which are abstract technologies for the use of technological materials. Therefore, one of the points to be considered after the COVID-19 pandemic is the use of the invisible side of educational technologies, that is, abstract technologies, in education together with concrete technology (Bozkurt, 2020a). After the COVID-19 pandemic, the change in teaching materials has transformed teaching methods and techniques. The success of concrete materials will depend on the effective application of abstract technologies.

After the COVID-19 pandemic, it became clear that new competencies were introduced where the concepts of “teachers,” “students,” “schools,” “classrooms,” and “lesson material” changed, everywhere could be schools and classrooms, but in this spirit that school function requires a soul, which is made up of student and teacher interaction. While using more technological materials as course material, preparing these materials and directing students to these materials are among the competencies of teachers. Crisis management with technology has been placed at the top of teaching competencies. The teacher should be competent to use technology well and make correct and clear decisions according to the situation. In addition, it is thought that distance education will be permanent after COVID-19. As we gradually emerge from COVID-19, most will remain the same, but many more distance education gains will probably change permanently (Bates, 2020). Online learning can become a financial imperative for sustainability (Murgatroyd, 2020c). Therefore, the gains gained as a result of the transformation of the changes brought by the COVID-19 pandemic to education should be clearly developed. Innovation and technological developments in education should be followed by teachers, and necessary in-service training should be given by the Ministry of National Education. Students and teachers should be supported technologically and psychologically in this process, teachers and students should be taken out of certain platforms, and non-governmental organizations should be included in education in order for distance education to be a truly live lesson. Policies should be developed to reduce inequalities in education and to prevent children from being left behind in education. As a result, some of the changes the COVID-19 pandemic has made in education may also be permanent after the pandemic. Continuous development and transformation should be a basic roadmap in order to gain the competencies that will enable teachers and schools to adapt to this change. In this study, the transformation of the COVID-19 pandemic on school, classroom, teacher, student, and the course material was examined through the opinions of school administrators. Researchers can study these concepts with different stakeholders of the school and with different working methods.

EIN (Educational Information Network): An online social education platform developed by the Ministry of National Education. This platform and EIN TV were used in distance education

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We hereby declare that the study has not unethical issues and that research and publication ethics have been observed carefully.

Researchers' contribution rate

The authors formed the research idea together. The first author took part in the literature review, data collection, data analysis, data interpretation, and reporting. The second author took part in reporting the research.

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