Mandatory Digitalization Thanks to or Due to COVID-19: An Empirical Study on Distance Education in Turkey

COVID-19 Nedeniyle veya Sayesinde Zorunlu Dijitalleşme: Türkiye'de Uzaktan Eğitim Üzerine Ampirik Bir Araştırma

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Abstract

Even before Corona, it was already clear to us that digitization concerns us all. It permeates our everyday life at work as well as in private. Moreover, it increasingly determines the learning location "school", where meaningful digitization based on a well-thought-out strategy has top priority to create a contemporary educational environment. Due to the school closings due to the pandemic in spring 2020, the education system had to take measures as soon as possible to continue lessons in homeschooling or distance learning. This study evaluates how homeschooling works in the current exceptional situation and which weaknesses, challenges, and opportunities can be documented. The aim is to depict the current situation from two different perspectives, teachers and parents, and to be able to draw possible conclusions for learning after the Corona crisis. The results and findings of the homeschooling study are also may be used to plan future courses.

Öz

Dijitalleşmenin hepimizi ilgilendirdiği Korona salgını öncesinde de açıkça anlaşılmakla birlikte, teknoloji günlük hayatımıza sadece iş alanında değil sosyal yaşantımızda da nüfuz etmekteydi. Günümüzde ise dijitalleşme, çağdaş bir eğitim ortamı yaratmak için iyi düşünülmüş bir stratejiye dayalı değişimin en yüksek önceliğe sahip olduğu öğrenme yeri "okul"u, olması gerekenin aksine hızla, etkisi altına almaktadır. 2020 baharında salgın nedeniyle okulların kapanması neticesinde, eğitim sistemi, evde eğitim veya uzaktan eğitim şeklindeki derslerin devam edebilmesi için en kısa sürede yeniden planlanmak zorunda kalmıştır. Bu çalışma, mevcut istisnai durumda evde eğitimin nasıl ilerlediğini ve hangi zayıflıkların, zorlukların ve fırsatların ortaya çıktığını değerlendirmektedir. Amaç, mevcut durumu öğretmenler, okul müdürleri ve ebeveynler olmak üzere üç farklı perspektiften tasvir etmek ve Korona krizi sonrasında eğitime yönelik olası sonuçlara varabilmektir. Bu çalışmanın sonuçları ve bulguları, gelecek eğitim planlarına da ışık tutabilir.

1. Introduction

Digitization is one of the significant challenges for global and national education systems. In Turkey, too, individual digitization initiatives and countless projects of the Ministry of Education have been launched in the past. Since 2010, starting with FATIH project for education and EBA initiatives triggered the digital transformation to ensure the change in the information and knowledge society does not stop at education and sustainability in the change of communication, teaching, and learning through emerging digital and information technologies (Durnali et al., 2019). However, e-learning has found its way into schools rather slowly. After the minister's change, the EBA initiative concept was further

**Bu makalenin araştırma ve yayın süreci "Araştırma ve Yayın Etiğine" uygun şekilde yürütülmüştür.*

developed, and in 2015 the master plan for digitization was presented to introduce changes that result from advancing digitization gradually and, above all, across the board into the Turkish education system (Bolat, 2016). The coronavirus achieved within a short time, which both proponents of digitization, experts, teachers, and opponents of the digitization of teaching did not consider possible before. Many sub-projects, which according to the master plan, should have been implemented gradually by 2023, were implemented in a short period; other (important) parts were inevitably not taken into account (Mahmut, 2020).

Due to the school closings due to the pandemic in spring 2020, the education system had to take measures as quickly as possible to continue homeschooling or distance learning. After schools were closed or were only open to care for parents in systemically relevant professions, digital education experienced a real boost. Traditional teaching and learning methods took a back seat, and smartphones, tablets, and laptops suddenly became the most critical communication and knowledge transfer tools (Yucesoy-Ozkan et al., 2020). It remains to be seen whether this botch-up digitization will leave a lasting mark on the education system.

With the short-term changeover to learning at home, everyone involved in school life was surprised by a situation for which no manuals were available. Schools, especially school administrators, were faced with new challenges and the organization and coordination of the processes were essential factors that contributed to the success of teaching at home.

Especially when schools were required during the COVID-19 pandemic to carry out distance learning and online communication - and that already from primary level - teachers were forced to adapt their courses to these circumstances. Corona is proving to be the most effective training measure of all time - and that spanning the globe, through which people from all countries have changed habits and behavior in a short time (Iivari et al., 2020).

For now, it is not very clear which courses are thriving under the conditions of the corona pandemic and what experiences were made with homeschooling in times of Corona. There are also questions about how homeschooling works in times of prescribed distance learning, which weaknesses, challenges, and opportunities can be identified and documented, and whether conclusions can be drawn from this after the corona crisis. This paper presents one of the first results of the interviews with teachers and parents about the current situation to the best of our knowledge

2. Literature Review

Different terms are used for the current learning situation in media reporting and school administration; the context of the individual terms' meaning is not always clear. Homeschooling or distance learning can probably best be summarized under the term distance education. The term distance learning includes all forms of teaching and learning in which the teachers are regularly supervised over a distance (Davis, 2011). Since the school closings, the keywords homeschooling and distance learning have been continuously present. They denote the form of teaching carried out at Turkish schools during the corona pandemic, a variant in which teaching in the class is temporarily canceled and replaced by working at home and is supported with digital and traditional teaching media.

The following aspects are rated as essential for successful distance learning in the literature (Al Fadda, 2019; Hong and Jung, 2011; Ng, 2019):

Previous knowledge: It is advantageous if both the teachers and the learners have prior knowledge of information and communication technologies. If this is not the case, there are enough opportunities for teachers in further education and training that can be used (Rivero, 2002).

Technical implementation: The establishment of a suitable infrastructure is the essential requirement for distance learning success. The prerequisite for both teachers and learners is a device with an Internet connection. Furthermore, it must be considered which technologies and media can be used by the teachers and which can be used by the learners. Therefore, the choice of the right media must be carefully planned. The introduction of a corresponding learning platform is also crucial, as this supports the didactic approach and guarantees stability and accessibility. The learner must not deal with technical problems or long training phases due to complicated systems but must work quickly and easily with the content (Sandi et al., 2018).

Time resources: The time frame should be carefully planned and given by the teacher. It should be clearly defined in advance how much time the learners will need for an activity, what, and when something should be done. The teacher must also be aware of how much time is spent on preparation, distribution of materials, improvement, and feedback (Xu and Malinen, 2015).

Communication: Successful communication with the students is the first step towards the successful implementation of distance learning. It is necessary to make the right choice of communication tools so that all those involved can follow the mostly asynchronous communication in distance learning and receive all information and support working together on documents and artifacts of all kinds. Tools for communication, in which teachers create, present, and discuss something, are exciting (Rahman, 2020).

Didactic organization: An important point is planning which learning material is made available to the learners, to what extent, and how structured. Since the students cannot be dealt with immediately in the event of individual difficulties or questions, unlike in traditional courses, the media-supported offer must be very well considered and precise (Benigno and Fante, 2020).

Accessibility: Lack of hardware and access to (stable) internet connections are among the most critical reasons pupils cannot be reached digitally. Fair access to required resources for all students - regardless of the parents' economic situation- is critical for homeschooling success. Some also point out that parents need their digital devices for the home office themselves or that working at home does not have enough time and emotional resources to support their children adequately (Bozkurt, 2019).

Engagement: The teachers and employees of the schools have a great need for an exchange of experiences, materials, methods, and procedures with their colleagues. Cooperation and solidarity also become significant concerns that can express themselves in mutual support and enable congruent action. It also requires all colleagues, students, and parents' commitment and engagement in distance learning and digital solutions (de Oliveira et al., 2018).

Digital content: One of the factors that most affect the success of distance education is digital content. It may take a long time to digitize the course contents. The lessons taught with the traditional method should be supported with different methods during the distance education period. For this reason, it may not be sufficient to convert existing course materials to digital. On the other hand, it may not be possible to transfer all course contents to digital media. Weakness or lack of digital content negatively affects the material richness of distance education and creates curriculum transfer problems for both teachers and students (Laaser and Toloza, 2017).

Instructional design: Instructional design describes the systematic conception and provision of digital and physical learning environments. The starting point is the cognitivist conception of learning needs to develop teaching/learning scenarios. The planning and provision of teaching/learning scenarios are primarily based on a cognitivist understanding of learning and linked to computer-based or digital forms of teaching from the earliest days. Instructional design, therefore, functions as a "science of planning", within the framework of which learning needs and the teaching/learning infrastructure and resources are analyzed to conceptualize and provide a teaching/learning environment on this basis. Especially in distance learning, in which standardized forms of teaching and learning are used, Instructional Designs can develop added value via extensive use of technical means and the consequent application of organizational techniques and the resulting reproduction of optimized teaching material (Rumble, 2019).

Evaluation of student performance: It is intended to ensure the continuation of lessons in the case of quarantine, the quality of distance learning, and, above all, the valid assessment of student performance. Achieving these goals is a joint task. The school's educational mandate can only be successfully implemented if all those involved meet their obligations. A sound performance evaluation must always be guaranteed, and the teachers should give a well-founded assessment for each student (Xu and Yu, 2019).

Although the bridging phase of distance learning on the part of the Ministry of Education has successfully started in many schools, different challenges have become clear for different schools over time. The Ministry of Education guidelines for distance learning for school administrators and teachers have been formulated as an orientation aid. According to the guidelines, school principals should install filing systems in the school's entrance area for parents if necessary. Teachers should, in turn, regularly

provide exercise materials (digital or on paper). The pedagogical objective of these materials is to consolidate, deepen and practice the learning content that has already been developed with the students in the classroom. According to the Ministry of Education, teachers should give regular feedback on the work of the students. Schools have developed various strategies and variants of distance learning to exchange and transfer learning materials and tasks. These range from the paper worksheet exchange system to working with learning platforms.

However, the most critical prerequisite for successful homeschooling in times of COVID-19 is functioning communication between school partners. In order to be able to keep in regular contact with pupils or their parents, schools must have communication facilities. Digital newsletters and e-mail traffic are ideal for this. According to the Ministry of Education, teachers should also be available to parents during consultation hours by e-mail and support them with questions relating to lessons or supervision. Learning and communication platforms should be used as uniformly as possible by all school teachers to overwhelm learners and parents. Communication channels that are also used in regular operations should also be used primarily. How extraordinary the current situation is can also be seen from the fact that currently - compared to a few weeks ago for school communication under these particular circumstances - apps for social networks (WhatsApp, Instagram, etc.) with similar functionality are limited to the resumption of regular school operations can be used to reach all those involved.

2.1. Current Studies on Homeschooling

Home teaching has been possible for over a century and a half, although homeschooling has so far been largely unexplored and the scientific data on distance learning is still somewhat limited. This situation changed in spring 2020, and the results of numerous national and international studies are now available.

Aristovnik and colleagues (2020) would like to record schools' current situation regularly as part of a mood picture on a global scale. A large-scale study has been carried out on higher education and COVID-19 and the current school and education challenges. The detailed and extensive results of the study are intended to contribute to the exchange of experience. Research findings show that the corona crisis endangers educational justice and equal opportunities in schools and harbors enormous digitalization opportunities in the educational context. According to Ngumbi (2020), "Students from socio-economically (highly) disadvantaged homes" are particularly at risk from the closure of educational institutions.

Another recent study (Bao et al., 2020) has focused on finding out how kindergarten children deal with the current situation and the home learning and what support they need to learn at home. The team also looked into difficulties associated with this due to the current learning situation and investigated whether new learning methods are opening up.

A systematic review study has been carried out by Jackson and colleagues (2014) to document school closures' effects. For this study, around 2000 simulation studies were identified to review and predict possible situations. In a recent study, Viner et al. (2020) focused on the COVID-19 situation and evaluated school closures' effectiveness.

Kaden's (2020) study dealt with how teachers see the Corona crisis in education. This single case study aimed to enlighten the everyday professional life of a rural K-12 teacher. Garbe and colleagues (2020) investigated parents' perspectives and obstacles for distance education during COVID-19.

The results of these studies would summarize that the distance learning phase offers both opportunities for a new look at education and harbors risks such as increasing educational injustice. Disadvantaged students are significantly affected by the school closings.

2. 2. Research Aim and Research Questions

With the pandemic period, the "sudden" education application remotely forced the education community and caught families and students unprepared. The abandonment of the traditional face-to-face training model brought along the need for various technological competencies and the necessity to keep up with the learning method changes and the hardware and infrastructure needs. Although there are many studies on distance education in the literature, the sample of these studies consists of individuals who

consciously prefer distance education. During the pandemic period, distance education started to be implemented as a compulsory practice for all stakeholders, not a choice. Therefore, this study's sample consists of individuals who unexpectedly have to adapt to distance education, contrary to other studies in the literature. This study examines how distance education is perceived by educators and parents during the pandemic period and reveals different perspectives, and aims to answer the following research question via quantitative methods:

Q1: "What impacts has distance education on the usual educational process?"

In this study, an analysis has been done on how homeschooling works in the current exceptional situation and which weaknesses, challenges, and opportunities can be documented. The aim is to depict the current situation from two different perspectives, namely from the point of view of teachers and parents, and to be able to draw possible conclusions for learning after the Corona crisis. The results and findings of the homeschooling study are also intended to be used, among other things, to plan future training courses. Therefore, the following research question is generated to be answered via qualitative methods:

Q2: "How distance education affected the educational experience?"

3. Methodology

The study's basis is a comprehensive research of thematically relevant empirical studies and empirically-based theories and models. Current studies are fascinating because, at the time of the corona pandemic, homeschooling or distance learning was carried out under different conditions than before 2020.

3. 1. Sample of The Study

The sample of the study includes 742 people, made up of teachers (n = 345) and parents (n = 397) (as of May 10, 2020). The survey took place from the beginning of April to mid-May 2020. Of the teachers surveyed, 285 respondents (83%) describe themselves as female, 55 respondents (16%) as male, and five respondents (1%) did not answer this question. In the parents' survey, 347 mothers (87%), 30 fathers (8%), and 20 people (5%) who did not provide any information about their role answered the questionnaire. Teachers of the following school types took part in the study: pre-school institutions, primary schools, Anatolian high schools, science high schools, vocational and technical high schools, private high schools, vocational schools, and universities.

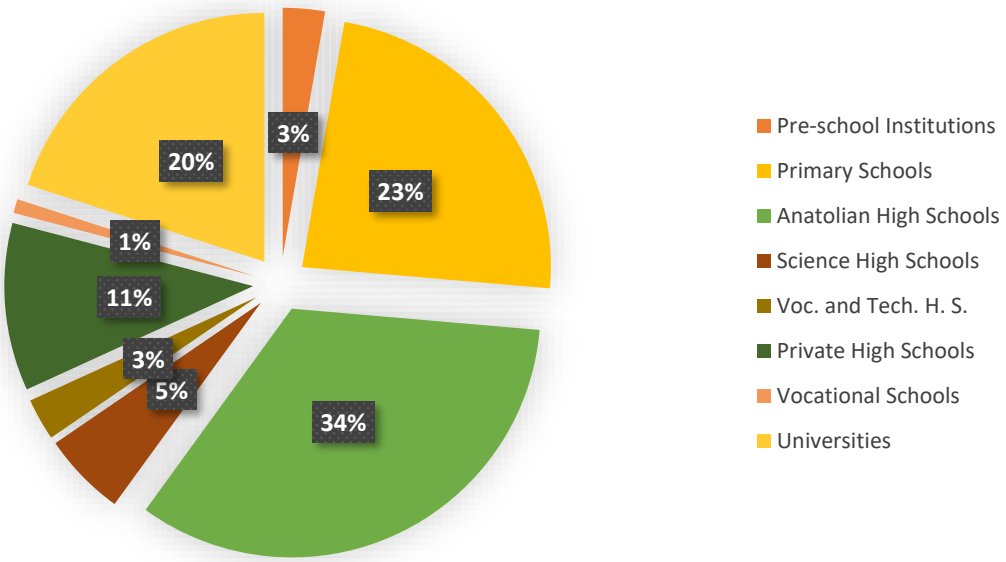

Figure 1: Distribution of Teachers by Type of School

Figure 1 presents that around 26% of those surveyed are in the primary school sector, around 37% are teachers at the Anatolian high schools, and 3% each work at pre-school institutions and vocational and technical high schools. 22% of those surveyed are from universities, 1% of the teachers surveyed teach at a vocational school, 6% work at a science high school, and 12% at a private high school.

3. 2. Data Collection

This study adopted survey research methodology and is devoted to *how parents, teachers, and school administrators experienced the distance learning phase in times of the corona pandemic* and *what conclusions can be drawn from regular lessons.*

Sakarya University Social and Human Sciences Ethics Committee has unanimously decided that this research is ethically appropriate at its meeting dated 09.12.2020 and numbered 29 (E-61923333-050.99- 29/29). An online survey was carried out to gather research data, and the link to the survey was shared on various social networks and platforms. Teachers, as well as parents, were asked to pass on the information. Participation was voluntary. Therefore, the resulting sample is an ad hoc sample and is therefore not a random sample for the population of all groups of people surveyed.

Since the participation in the study was voluntary, and it was mainly advertised and shared via social media and in media-savvy groups, it can be assumed that the survey was more likely to be completed by people who have a positive attitude towards digital media and distance learning with digital media.

Depending on the respondent group, the questionnaire comprises 19 multiple choice and two open-ended questions.

The following subject areas are dealt with in the study:

- Successful implementation of homeschooling
- Communication
- Media usage
- Challenges and obstacles
- Positive experiences
- Time resources
- Further training and previous knowledge
- Planned future use of digital media

	Cronbach's Alpha	**Composite Reliability**
Successful implementation of homeschooling	0,812	0,847
Communication	0,762	0,835
Media usage	0,784	0,841
Challenges and obstacles	0,801	0,844
Positive experiences	0,761	0,831
Time resources	0,797	0,843
Further training and previous knowledge	0,859	0,886
Planned future use of digital media	0,751	0,812

Table 1: Item Reliability and Validity

To keep the scope and thus the online survey processing time as low as possible, some constructs were recorded with just one item. In many cases, a four-point Likert scale (Strongly Agree, Agree, Disagree, Strongly Disagree) was chosen as the response format.

The open-ended questions, in which the challenges and positive experiences with homeschooling were described, were answered by around half of the respondents from both the teachers and the parents in

the context of free-text fields in the online questionnaire. A category system consisting of inductive categories was developed for evaluating the open questions. The category system with the codes was discussed and revised as part of the evaluation.

3. 3. Data Analysis

Qualitative and quantitative data were collected within the scope of this research. Qualitative data were analyzed using the QDA Miner software. The most common words and word groups in the texts were examined and reported among the research findings.

SPSS software was used for the analysis of quantitative data. The answers given to the quantitative questions were subjected to frequency analysis according to the participant groups, and the results were reported.

4. Findings

4. 1. Quantitative Results

4. 1. 1. Evaluation of Homeschooling

The question about teachers' and parents' assessment of how well homeschooling works in times of the corona pandemic proves that this challenging process is carried out efficiently. Most of the responses were above 6 on a 10 point Likert scale for teachers, where 10 was excellent.

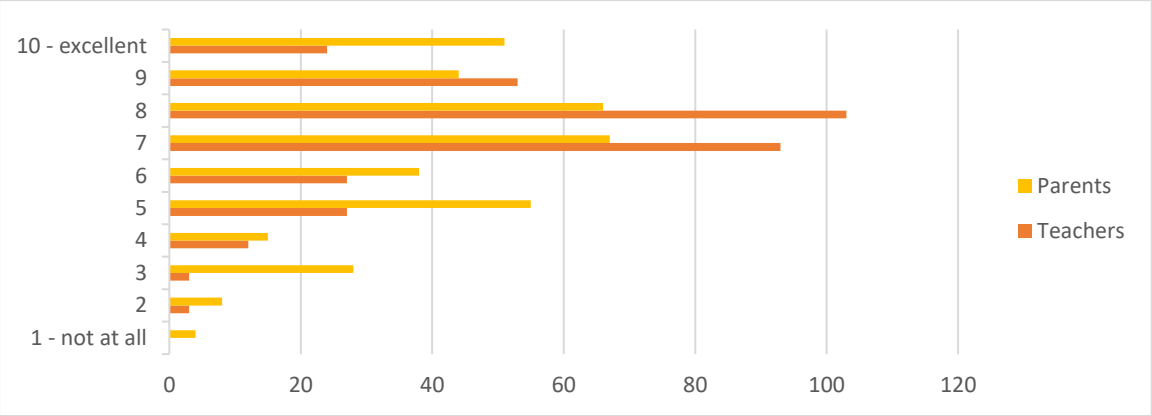

Figure 2: Evaluation of Homeschooling

While the parents' assessment is spread across several answer options, teachers tend to rate homeschooling as working well. 79.13% of teachers (273 respondents) give ratings between 7 and 10 compared to 57.43% of parents (228 respondents). It is noticeable that more parents (51 respondents / 12.85%) in contrast to teachers (24 respondents / 6.96%) rate homeschooling as working exceptionally well.

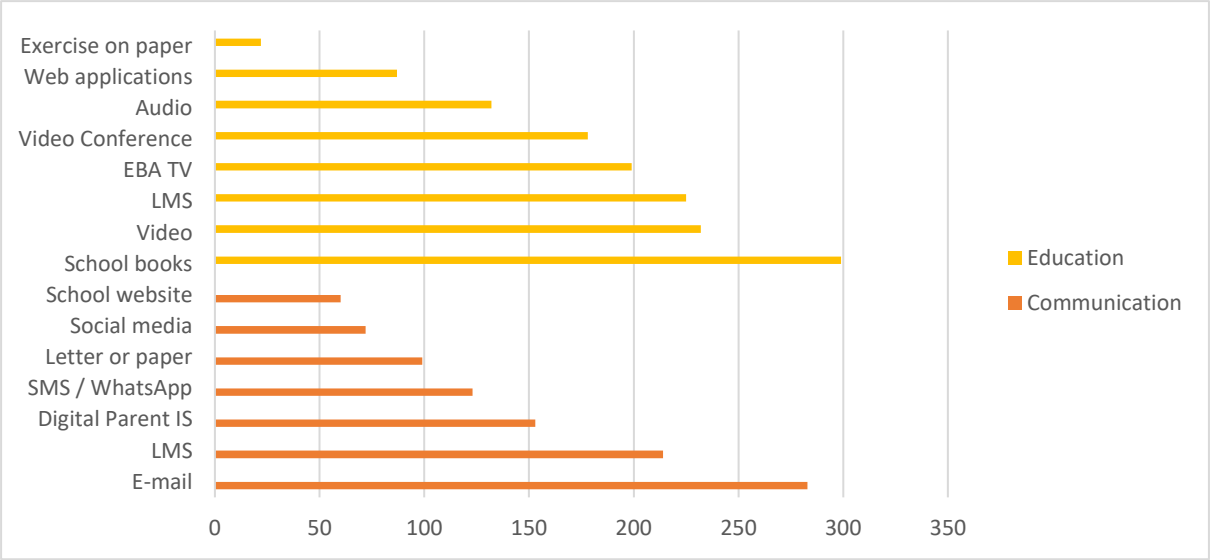

Figure 3: Media Preferences of Teachers

The usage of digital tools and media increased in the pandemic period because of distance education and working requirements. The form of communication takes place in distance learning, and the media preferences of teachers for homeschooling were examined within the research to identify the extent to which traditional or digital media are currently being used.

The majority of teachers (283 teachers / 82.03%) stated that they communicate with parents and children via e-mail. Almost two-thirds (214 teachers / 62.03%) also use learning management systems or platforms. 153 respondents (44.35%) also use digital parent information systems as a communication medium.

In the current situation, both digital and traditional media are used, with school books being used most frequently by teachers for homeschooling (299 respondents / 87.67%). 199 respondents (57.68%) made the tasks and exercises available to their students via EBA TV. More than half of the teachers (178 respondents / 51.59%) stated that they hold video conferences via Skype, MS Teams, or Zoom. 232 respondents (67.25%) also use videos to convey learning content digitally. Giving exercises on paper is only used by 22 teachers (6.38%) for homeschooling.

Average time spent on school issues on school days (students)

Responses	Frequency
Less than 1 hour	13
1-2 hours	100
3-4 hours	183
More than 4 hours	81

Teachers spend more time due to homeschooling (teachers)

Responses	Frequency
Strongly agree	242

Agree	72
Disagree	26
Strongly disagree	5

Table 2: Average Time Spent for School

The time spent by teachers, children, and adolescents for school has expected to be changed during the pandemic period. As the time spent for school changed, this would affect both the teachers' and the students' daily routines. This issue has been evaluated in order to gain an insight into pandemic period experiences. According to the parents' information about the hours their child spends on average on school-related matters on school days, 113 parents (28.46%) stated that their child spends less than two hours a day on schoolwork and learning (Table 2). As part of the time resources scale, the time required for school matters from the teachers' point of view after the switch to homeschooling was investigated. The change in the daily routines arises from the planning and provision of materials, which can be seen particularly in Table 2.

The table clearly shows that the time required for the vast majority of teachers (314 respondents / 91.01%) has increased due to homeschooling. Only five respondents (less than 2%) state that they currently do not spend more time planning and providing materials.

4. 1. 2. Teachers' attitudes towards digital media

Digital literacy and the tendency to learn and use digital devices are among the most critical success factors for sufficient distance education. Therefore, using the scale of usability of digital media/learning platforms, the teachers' attitudes towards digital media and the use of learning platforms in the course of distance learning were questioned.

The majority of the teachers (248 respondents / 71.88%) strongly agreed that digital media/learning platforms help make homeschooling easier. This finding proves the adoption tendency of teachers towards digital sources, which enables structured distance education.

Teachers were also asked whether their students received the same support level as usual when schools were closed due to digital media and learning platforms. For the teachers, an approximately equal distribution of the answers to the statement "My students get the same support as usual" over the two categories "Tends to apply" with 125 answers (36.23%) and "Tends to disagree" 123 responses (35.65%) observed.

Both the teachers and the students covered a significant distance in their knowledge in digital media and e-learning. The study examined the knowledge acquired so far, and 166 of the respondents (48.12%) stated that they had previous knowledge and had already received further training. 25 respondents (7.25%) have never attended any further training in this area to date. The source they preferred for further training was also investigated. Around half of those surveyed took advantage of the advanced training courses for teachers both in person and in the form of online training courses. However, the majority of those surveyed (305 teachers / 88.41%) took further training in the form of self-study.

Supporting the teachers and the students in the pandemic period was necessary to ensure qualified education and curriculum delivery. The Ministry of Education serves several sources for the community, as is mentioned before, but technological support or digital skills enhancement was also very critical to deliver efficient training. This research examined if the teacher accepted the support offers and, if not, which way they preferred to improve themselves.

The findings proved that most teachers (298 respondents / 86.38%) researched or accepted support from the school management and the teaching staff (202 respondents / 58.55%). 140 respondents claimed that they got advanced training or watched video tutorials from teachers. The projects support only 37 teachers for homeschooling guidelines, and 20 stated that they got assistance from the Ministry of Education.

4. 2. Qualitative Results

4. 2. 1. Obstacles to Successful Homeschooling

In the context of multiple-choice questions, the possible obstacles that could impair the successful implementation of homeschooling were identified from the teachers' and the parents' perspectives. With an open-ended question, further information was collected about fundamental challenges that have arisen since the switch to distance learning. The qualitative data was thematized via topic extraction, and the responses about challenges are reported with their frequency of co-occurrence.

Teachers' perspective	
Responses	**Frequency**
Lack of digital devices	222
Multiple burdens of parents	208
Lack of time management	180
The ability of students to work independently	170
Overload on students	147
Lack of motivation among the students	137
The readiness of parents for motivation and support	126
Lack of printer device	122
Living conditions	121
Internet connection	118
Prior knowledge of e-learning	66
Other	19
Parents' perspective	
Responses	**Frequency**
Multiple burdens of parents	244
Lack of motivation among the students	162
Lack of time management	130
Lack of contact with the teachers	114
The ability of students to work independently	108
Overload on students	86

Internet connection	44
Lack of printer device	43
Lack of digital devices	36
Living conditions	30

Table 3: Obstacles to Successful Homeschooling

Two hundred twenty-two teachers (64.35%) see the students' inadequate digital devices as the most significant challenge for successful homeschooling, followed by the additional burden on parents due to work, family, and learning at home (208 respondents / 60.29%). On the other hand, parents see no obstacle to successful homeschooling in the technical equipment - only 36 parents (9.07%) share the teachers' opinion. The greatest challenge for parents is their additional workload (244 respondents / 61.46%), whereby this information corresponds to that of the teachers. The children's lack of motivation is also an obstacle for parents to successful homeschooling (162 respondents / 40.81%).

The parents' vast majority describe the enormous double burden that homeschooling in connection with the parents' home office brings with it as a "challenge every day". A single mother reports that she has to "work in the home office, teach two children (1st and 2nd grade), cook, ...". Many responses refer to the children's lack of motivation to concentrate or complete the tasks at all and how difficult it is to "motivate children to do their tasks quickly" and explain: "The difference between homework and homeschooling is for them are incomprehensible". Many parents see themselves as overwhelmed by their teacher role, which they now had to take on for a short time, and put it this way: "We are not teachers, we are 'only' the parents. Everything that teachers convey is better accepted." They also emphasize that the children's lack of social contact with their friends is problematic. Another aspect that seems quite challenging is the immense amount of time it takes to organize the learning material and assignments. In contrast, the actual time it takes the children to study and work (Figure 6) appears to be relatively small.

4. 2. 2. Positive Experiences Since the Switch to Homeschooling

The responses about the positive experiences were gathered via open-ended questions. The topic extraction presented that four aspects came up most frequently. First of all, it was clear that the children were independent. It was formulated that "the child has become more independent and learns to organize itself". Secondly, free time management was cited as a very positive experience, because it would result in "relaxed, cooperative, happy, interested children who are allowed and able to work at their own pace", because "learning can be divided differently" and after the "Biorhythm" can be worked on. Most of the parents found learning together and the insight gained into their children's subject matter and skills as an enormous enrichment. The fourth aspect worth mentioning was developing and promoting digital skills and dealing with digital tools. Another statement read: Digital skills have been improved. Furthermore, no pressure to perform and motivation on the part of the children were mentioned as positive experiences, and the extraordinary commitment of many teachers, who contribute a large part to the successful implementation of distance learning, was emphasized.

On the teachers' side, most of them see the development and promotion of digital skills in themselves, in the staff, and the students as a positive aspect through the measures of the prescribed distance learning: "We have a mega-project on the subject of digitization in everyday life We would never have practiced that much in this area otherwise." Many of the teachers report positive feedback and appreciation for organization, material, and general homeschooling from parents and students and describe the positive side effect, the increased contact to the parents, like this: "The contact became more intensive" and praised a "very positive, new way of working with the parents". Some teachers report that this form of teaching is an opportunity for weak and introverted students because "Children who otherwise only stand out in silence and just manage the minimum, suddenly become very hardworking and creative". It has often been pointed out that individual support is made possible through distance learning. Some also

cite the free time management, the improvement of their courses, and the students' creative work as positive.

The results clarify that there is currently a clear commitment to e-learning and learning with digital media among teachers. Most teachers (287 respondents / 83.19%) would like to continue using digital media and learning platforms in their future courses. Only nine respondents (2.61%) reported that they do not get support from digital platforms after the Corona crisis ended.

5. Discussion and Conclusion

Due to the school closings because of the pandemic in spring 2020, the education system had to take measures as soon as possible to continue lessons in homeschooling or distance learning. After the schools were closed, digital education experienced a real boost. Traditional teaching and learning methods took a back seat, and smartphones, tablets, and laptops suddenly became the most critical communication and knowledge transfer tools. Whether this "botch-up digitization" will leave a lasting mark on the education system remains to be seen.

The digitally supported homeschooling or distance learning, as it was carried out in the context of the school closings in Turkey due to COVID-19, does not involve most conventional teaching processes due to its short-term introduction that usually takes place on-site, can be compared. However, if the results are evaluated, it is still primarily rated positively by the parents and even more so by the teachers. Based on the teachers' positive attitude towards digital media shown in the study and the intention to continue to use them, the prerequisites for digital learning also seem to be given for future learning processes. According to the study, digital media have arrived in teaching both supposed digital natives and digital immigrants. The study confirms that teachers of all age groups are now more media-savvy than is commonly reported in the media. Other studies in the literature, even if it has not been examined during the COVID-19 period, also supported the educators' predispositions to distance education (Shin, 2003; Yorke, 2004; Alhabeeb and Rowley, 2018).

Even if the phase of distance learning revealed challenges concerning educational justice and equal opportunities, it also offers opportunities for a new look at education. The task now is to use the boost that digitization has received in education and to anchor digitization in the education system in the long term. As a result, even though the COVID-19 period brought many problems with unpredictable global consequences, the efforts carried out for decades in digitalization and the spread of digital has reached their goals quickly (Schneider and Council, 2020; Nadeak, 2020).

When it comes to digitalization and the remote maintenance of transactions, the first thing that comes to mind is the technical infrastructure possibilities (Leontyeva, 2018). In the first phase of homeschooling, most schools focused primarily on distance learning (technical) introduction. It quickly became apparent that in addition to technology, the organization of distance learning and the consideration of didactic principles are central aspects for successful distance learning. In the next step, there is, therefore, the need to give more thought to didactics. The time of distance learning has shown that it is no longer a question of whether digital media should be used in lessons. Since the "use of technology alone does not guarantee an increase in quality in the education system", media-competent teachers are required who use digital media in a didactically meaningful way in the classroom and who have the didactic potential digital media. Therefore, teachers' main challenge is to design distance learning courses with meaningful activities so that the students do not lose focus on their learning goals and their motivation is maintained. The difficulties in designing distance education materials appear in the literature to support this study's findings (Xiao, 2017; Viberg and Grönlund, 2017; Marek, Chew and Wu, 2021). In addition to learning success, staying in contact in the phase of distance learning is also essential. Social contact and exchange with one another is also an essential task of the school.

According to the study, blended learning courses and virtual learning will be even more in demand in the future, which is why it will be necessary to develop further the already extensive training and other educational offerings for teachers so that the digitization path that has started after the corona crisis can continue in everyday school life can be. It is evident that teachers trained in media education will be indispensable for digital learning and need a modern, high-performance IT infrastructure and professional support (Zheng et al., 2018). Suppose pupils are to learn with digital media, through and

through digital media and despite digital media and become media-competent members of our society. In that case, innovative teaching and learning formats must be implemented in schools over the long term, for which the creation of a media development plan as part of a school development process will be indispensable.

Framework conditions for digitally supported teaching, future-oriented training, further education and training, professionalism and willingness to innovate, and the willingness to develop yourself and your teaching, are condition factors for successfully implementing digital media in schools. The knowledge gained during school closings probably means that the social aspect is valued more highly in traditional teaching times, and it becomes clear that successful learning and teaching in schools are heavily dependent on the skills of the teachers and didactic concepts. However, one can assume that digitization and communication, and information technologies are becoming increasingly important in shaping schools' development and teaching in a forward-looking manner (Pettersson, 2021). Digital media will increasingly change the school as a place of learning in the future, but learning is and will remain a social process, and it is the people, never the programs, that determine the quality of a school.

It should not be forgotten that there are several limitations of this study. The participants were only asked based on their expectations and ideas. For the study's quantitative findings, data gathering regarding their expectations or ideas was limited with the survey questions. As a result of this relatively structured object of investigation, the data were subject to a high degree of limitation. Furthermore, the chosen procedure can capture a current basic setting, but it cannot be predicted how the participants would react if current conditions continue to be implemented in the future. This would have to be researched in a field study. There is also an imbalance in the study sample so that the results are difficult to transfer to the population. For the qualitative research, some of the test participants were very open and positive about certain statements, while the other part ultimately rejected them. This makes the data less meaningful. Also, only people who live in Turkey were surveyed. The results, therefore, only relate to Turkey and cannot be transferred to other countries.

Future research may investigate how one can continue the digitalization path in everyday school life after the Corona crisis. The ability to act appropriately and independently, starting from primary school, should be firmly anchored in school education. Teachers should continuously reflect on their media skills and, if necessary, take advantage of advanced targeted training to expand their digital skills.

Compliance with Ethical Standards

Conflict of Interest: The authors declare that there is no conflict of interest.

Ethics Committee Permission: The ethical suitability of this research is approved by Sakarya University Social and Human Sciences Ethics Committee (09.12.2020 - E-61923333-050.99- 29/29).

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