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## Examining the Learning Losses of Students in the Covid-19 Process According to Teachers' Opinions

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### ABSTRACT

Although the Covid-19 pandemic was primarily a medical emergency, it had far-reaching effects on schools and their students. During the time of the pandemic, the regular schedule of classes had to be put on hold, and students had to adapt to circumstances with which they were not familiar. It is claimed that students suffer adverse consequences as a result of this scenario. Because of this, it is crucial to know how many academic opportunities students lost due to the pandemic. The study moves in this direction by collecting and analyzing teacher perceptions of students' learning losses during the Covid-19 process. The study, conceived as a phenomenology, involved 26 educators from a wide range of institutions, fields, and grade levels. The research utilized a simple and quick sampling strategy. The information was gathered with the help of a semi-structured interview form. Content analysis was performed on the collected data. Academic losses, loss of skill development, psychological losses, loss of equal education, loss of health and safety, and social losses have been revealed as the learning losses experienced by students during the Covid-19 process, as reflected in the opinions of the teachers. It is possible to devise social and cultural activities and educational support programs to make up for the student's social, economic, health, and educational setbacks.

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Keywords:

Student losses, Covid-19, distance learning

### 1. Introduction

Shortly after its occurrence, the Covid-19 pandemic impacted the entire planet, causing a shift in traditional roles. One of the institutions affected by this change has been the education system. As a result of the pandemic, there have been interruptions in the operation of corporate education, and governments have had to adapt their educational systems accordingly. Like other countries, Turkey had to take a break from face-to-face education in this process. Although face-to-face education was provided at some grade levels from time to time between March 2020 and June 2021 in Turkey, education services in general were carried out with distance education.

Due to the closure of schools, most students could not go to school for about a year during the Covid-19 process. Therefore, the tragic, economic and educational consequences of Covid-19, which started as a health crisis, have emerged (Kaffenberger, 2021). It is thought that the closure of schools in terms of education also causes significant learning losses (World Bank, 2020). Learning loss is the failure to retrieve the information stored in the long-term memory as desired in later times (Arı, 2004). It is estimated that learning losses occur after long vacation periods (Von Hippel, 2019). When the studies on learning loss are investigated, it is

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understood that they are mostly related to summer holidays (Kuhfeld, 2019; Slates et al., 2012; Von Hippel, 2019). However, it is thought that students who cannot follow their lessons adequately, do not have the sufficient technical infrastructure and have internet connection troubles during the Covid-19 process experience serious learning loss (Donnelly & Patrinos, 2021; Engzell, Frey & Verhagen, 2021).

School closures have given rise to the most significant deterioration in the history to the education system in more than 190 countries. This has affected 99% of the student population in low- and middle-revenue countries and 94% of students worldwide (United Nations, 2020). In addition, although the closure of schools causes learning loss, learning deficiency, social, emotional, and behavioral problems, as well as an increase in school drop-outs, it is anticipated that many individual and social losses will occur if learning losses are not compensated. Although efforts have been made to prevent learning losses through distance education while schools are closed, there are reasons for learning losses due to the limitations of distance education, the shortening of education periods compared to normal education, and the difficulties students face gaining access to education. An increase is considered to occur (TEDMEM, 2021). While education systems attempt different degrees of distance learning, it is thoroughly admitted that closing schools will both increase drop-outs and inequality among students, and lead to significant losses in learning (World Bank, 2020). These losses were also expected to negatively affect both students and nations economically in the future by following students to the labor market (Hanushek & Woessmann, 2020). Therefore, it is a necessity to determine the other losses experienced by students in addition to their learning losses.

One of the most significant aims of education is for the student to acquire and develop skills. Studies show that taking a long break from education suspends learning and causes loss of acquired knowledge and skills (Reimers & Schleicher, 2020). Being aware of the consequences of the long-term closure of schools during the Covid-19 pandemic process, the Ministry of National Education has prepared an approximate two-month compensation program to support the physical, social-emotional and academic development of students with scientific, social, cultural and sports activities during the summer vacation when diluted education or distance education activities are over (Ministry of National Education (MoNE), 2021). Despite this, research has shown that students have problems in accessing education during the Covid-19 process (Demir & Özdaş, 2020; Demir & Özdaş, 2021; Külekçi, Akyavuz & Çakın, 2020; Marin et al., 2020; Özdoğan & Berkant, 2020). It has also been demonstrated that school closures can reduce learning with significant long-term consequences (Khana & Ahmed, 2021). It is known that the Covid-19 pandemic caused learning loss, increased dropouts and increased inequality of access to education among students due to the closure of schools at all levels, almost all over the world. It is estimated that this will bring long-term costs on human capital and well-being in the future (World Bank, 2020). Although it was tried to continue education online during the pandemic, most students had difficulties in online learning. Especially poor children have experienced these difficulties more deeply in accessing distance education. He could not attend or follow the lessons because his technological opportunities were insufficient. They were not sufficiently motivated to fulfill their lessons and responsibilities (EBSAM, 2021).

In this situation, when the relevant literature is investigated, it is understood that there has not yet been enough work on the learning losses in the pandemic process (Baz, 2021). Therefore, it is seen that there has not been enough work on the learning losses in the Covid-19 pandemic process yet. However, it is necessary to determine the learning losses experienced by the students and to make the necessary studies to compensate for the learning loss. In this context, the study is important in determining students' learning losses during the Covid-19 pandemic. It is thought that determining the skill losses experienced by the students as well as their learning losses will contribute to the field. The consequences of the research will provide scientific data to teachers, school administrators and ministry officials for the support and make-up trainings to be organized for students. In this respect, the study is important because it is among the first studies to determine the students' learning losses based on teacher opinions during the Covid-19 pandemic in Turkey. In this context, the purpose of the research is to examine the learning losses experienced by the students during the Covid-19 process according to the opinions of the teachers. Within the scope of this general purpose, the learning losses caused by the Covid-19 process in terms of students have been revealed based on the ideas of the teachers.

## 2. Methodology

### 2.1. Research Model

In this study, the phenomenology design was used. Phenomenology is a qualitative research design that focuses on phenomena that we are aware of but do not have in-depth and detailed understanding (Yıldırım & Şimşek, 2018). In the phenomenology design, information about the phenomenon is searched through the experiences of individuals (Patton, 2002). In this context, teachers' opinions regarding students' learning losses during the Covid-19 pandemic process were sought in the research. Thus, it is aimed to obtain detailed data about the learning losses experienced by the students in this process.

### 2.2. Research Process

The main processes followed in the research are shown in Figure 1.



Figure 1. The Research Process

### 2.3. Research Sample

The study group of the research consists of 26 teachers who provide both online and face-to-face training during the Covid-19 process. Participants were determined by easily accessible case sampling, one of the purposive sampling methods. In purposive sampling, the researcher uses the judgment of who will be selected, and takes into the sample the people or groups that are most suitable for the purpose of the research (Balçı, 2009). The purposeful sampling method is a sampling approach that allows for in-depth study of situations that are thought to have rich information (Patton, 2002). The easily accessible sampling method was chosen because the researchers came together with the selected teachers during their graduate education, got to know the participants in the study group, could reach the participants more easily, and gave speed and practicality to the research. Data related to the study group are shown in Table 1.

Table 1. Data on the Characteristics of the Workgroup

Variable	Subvariable	f	Variable	Subvariable	f
Education Level	Lisans	26	Gender	Male	10
	0-5 year	6		Female	16
	6-10 year	10		High School	8
Seniority	11-15 year	7	School	Middle School	10
	16-20 year	3		Primary School	8

### 2.4. Data Collection Tools and Procedure

Research data were obtained with a semi-structured interview form. The researchers developed the semi-structured interview form by reviewing the literature. The form included four questions about personal information and one question about the purpose of the research. Two instructors as well as researchers checked the questions. In addition, to check the comprehensibility of the interview form, it was applied to

three teachers before the application. In the interview form, the teachers were asked what kind of losses the students experienced during the Covid-19 process.

Research data were collected in the spring term of 2021. Research data were collected about one year after the pandemic so that teachers would have a sufficient opinion on this issue. According to Yıldırım and Şimşek (2018), asking only one question in data collection provides researchers with a flexible approach to the subject they want to research, but also allows the subject to be discussed in detail. In this direction, only one open-ended question was asked to the participants during the data collection process, allowing them to be flexible. The data collection tool was distributed to the participants in hard copy and they were asked to answer the question. During the course of answering the questions, necessary explanations were provided to the participants, and their questions were also addressed. The participants' information was analyzed by the researchers within the context of the research objectives.

To ensure the validity and reliability of the research, the recommendations in the literature were taken into account (Clement, 2000; Creswell, 2020; Merriam, 2009; Shenton, 2004). The criteria of confirmatory sampling and informed consent for participation in the research were met, ensuring the validity of the interview form used. Analyzing the collected data in detail and explaining how the researcher reached the results are among the important criteria of validity in qualitative research (Yıldırım & Şimşek, 2018). To increase the validity of the research, the research process and the procedures performed in this process were explained in detail; the findings are presented with tables and pictures. While presenting the findings, some quotations from the teachers' opinions were presented directly.

## 2.5. Data Analysis

Content analysis method was used in the analysis of the research data. The content analysis method, aims to reach the concepts and relationships that can explain the gathered data. In content analysis, similar data are brought together within the framework of themes and organized in a way that the reader can understand (Yıldırım & Şimşek, 2018). In this direction, the following process was followed in analyzing the research data: At the beginning of the analysis, the data obtained were dumped and then coded considering the concepts obtained from the data. The coding was done separately by the researchers. From the obtained codes, meaningful wholes were formed. The themes were created by reviewing the codes in the obtained themes. Reliability calculations were made to count the consistency between the codes while coding. The "Percent Concordance Formula" developed by Miles and Huberman (1994) was used in the calculation. In accordance with this formula, the calculation was made as follows:  $\text{Reliability} = \frac{\text{Concordance}}{(\text{Agreement} + \text{Disagreement})} \times 100$ . A compliance percentage of 70% or more is sufficient for coding reliability (Yıldırım & Şimşek, 2018). Thanks to this formula, it was determined that the coding agreement percentage of the researchers was 0.89. The findings obtained from the research were converted into tables and figures. While presenting the findings, some of the teacher's views were coded and given directly. In the coding of opinions, the letter (T) indicates the teachers, and the number indicates the degree of the teacher in the research. For example, T26 refers to the twenty-sixth teacher. Finally, conclusions are drawn from the findings.

## 2.6. Ethical

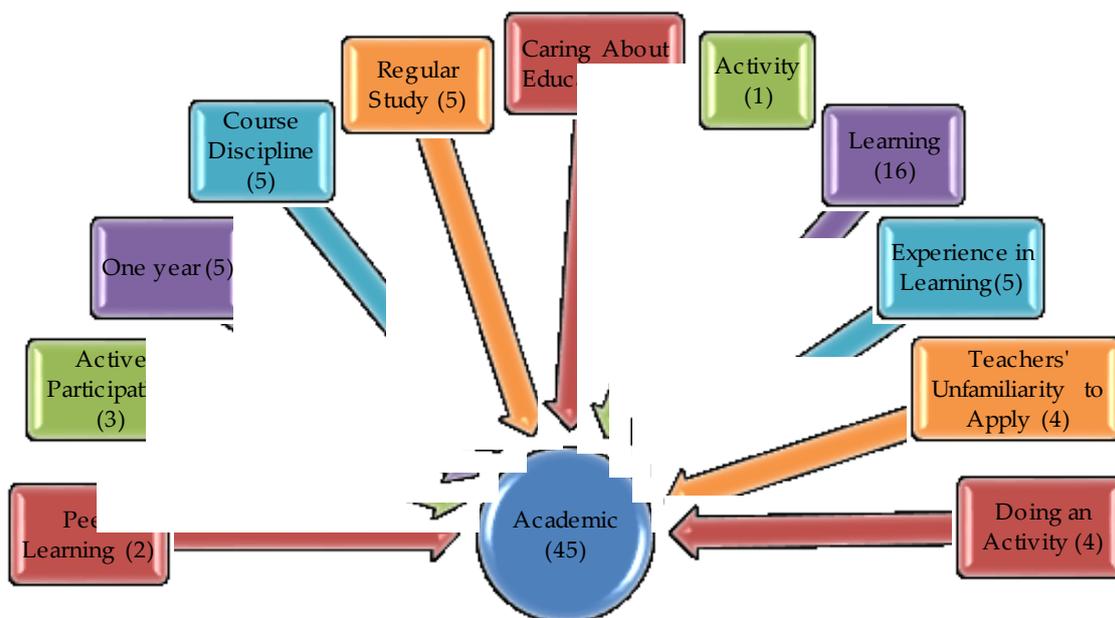
Ethics committee approval was obtained for the research. Name of the Board: Mardin Artuklu University Scientific Research and Publication Ethics Committee Board Date: 04.05.2021. Number of Sessions: 2021/4-28

## 3. Findings

As a result of the data analysis, six themes related to the learning losses of the students during the Covid-19 pandemic process were determined. These themes were named as academic, skill development, equal education, psychological, health and safety, and social losses. The findings related to the learning losses and some of the teachers' opinions regarding these findings are presented below.

### 3.1. Academic Losses

Figure 2 presents the results of an analysis conducted using the perspectives of the participating educators to determine the academic losses that their students incurred as a result of the COVID-19 process.



**Figure 2.** Academic Losses of Students in the Covid-19 Process

As seen in Figure 2, according to the teachers' opinions, it was revealed that the students experienced 11 academic losses during the Covid-19 process. These losses are conceptualized as peer learning, active participation, one year, course discipline, regular study, caring for education, activity, learning, experience in learning, teachers' unfamiliarity with practice and practice. During the Covid-19 process, the students moved away from school, the majority of them did not attend training, the students with the opportunity received support but the students without the opportunity did not receive support, there were differences in knowledge and learning between those who attended training and those who did not, and although some students attended classes, their home environment was not suitable. In addition, it was expressed that due to the environment and conditions of the students, they did not study regularly and did not carry out studies to reinforce the education they received. Students see the process more as a holiday and do not attach importance to distance education, and even if they are alienated from education during this period, there are no activities to increase their interest and motivation. For this reason, it was stated that students experienced a learning loss of one academic year, first and second graders experienced a greater learning loss in this process, and at least one year of academic loss was experienced.

On the other hand, the academic losses experienced by the students were due to the fact that the teachers were unfamiliar with distance education. Teachers cannot use the methods and techniques they use in face-to-face education in distance education. Additionally, since they do not have distance education experience, they have problems in distance education and difficulty conducting distance education. Distance education offers limited opportunities compared to face-to-face education, the lessons are knowledge-based, and the students are only listeners and remain passive. Therefore, they do not find the opportunity to learn by living and experiencing. Therefore, they do not practice in learning and do not gain experience. Since distance education is not suitable for sports, dance and music education, the teaching of applied courses is insufficient. However, they could not learn from each other because they were not in the same environment with their peers. Some of the sample teacher opinions are presented below:

*"They saw the pandemic process as a holiday rather than a state of emergency. They did not attach the necessary importance to the education provided..." (T5)*

*"The unsuitable physical environment and conditions of the student negatively affected his motivation and regular work." (T8)*

*"Since the teachers do not have distance education experience, the new situation made the teachers nervous and while trying to adapt to distance education, disruptions occurred during the lesson." (T9)*

*"This year's first and second graders will continue their lives as a lost generation." (T10)*

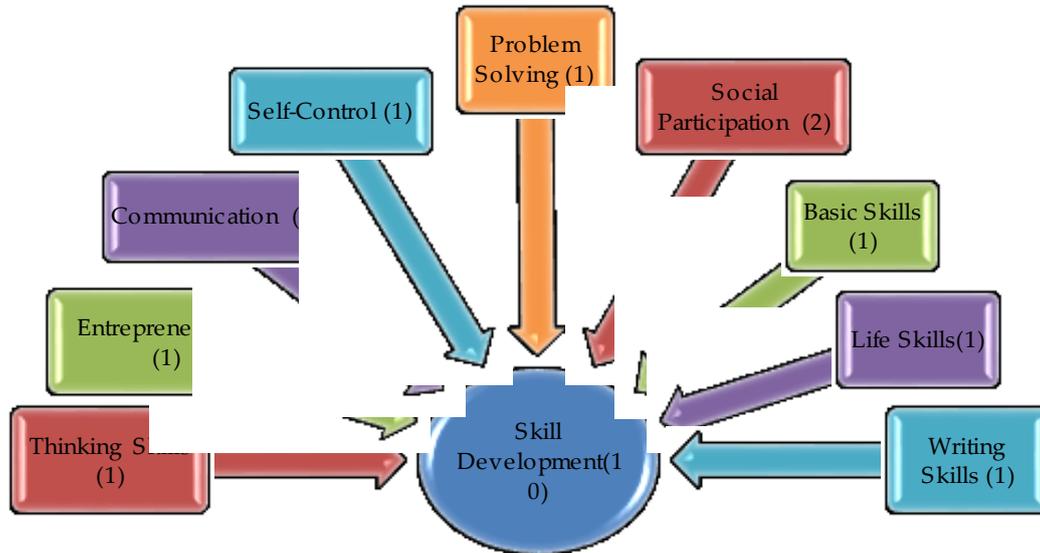
*"Students have become uncommunicative listeners, spending all their time at home." (T12)*

*“Students should learn the achievements by living and trying. It is very difficult to create educational experiences in the electronic environment where they are at the center.” (T13),*

*“Perhaps one of the most permanent methods of learning, peer learning, could not be realized. Effective group activities could not be done.” (T26)*

### 3.2. Skill Development Losses

The findings regarding the skill losses of the students during the Covid-19 process are presented in Figure 3:



**Figure 3.** Students' Loss of Skill Development in the Covid-19 Process

As seen in Figure 3, the losses of the students in terms of skill development during the Covid-19 process were determined as thinking skills, entrepreneurship, communication, self-control, problem-solving, social participation, basic skills, life skills and writing skills. It was stated that with the suspension of face-to-face education, students lost or could not develop their creative, critical, analytical thinking and assertiveness skills. The students' communication skills were weakened, they could not fulfill their responsibilities and had difficulty in controlling themselves. Since the students are not given the opportunity to practice in distance education, they also experience a loss in their problem-solving skills. In addition, it was expressed that social participation skills weakened due to being away from the school and classroom environment. Likewise, vital skills such as sharing, coping with problems and competition that can be gained through face-to-face education are not acquired through distance education. Another loss is the writing and notebook organization skills that first-year students should acquire. Some of the sample teacher opinions are presented below:

*“Students who were just learning to read and write had problems with writing and notebook layout.” (T12)*

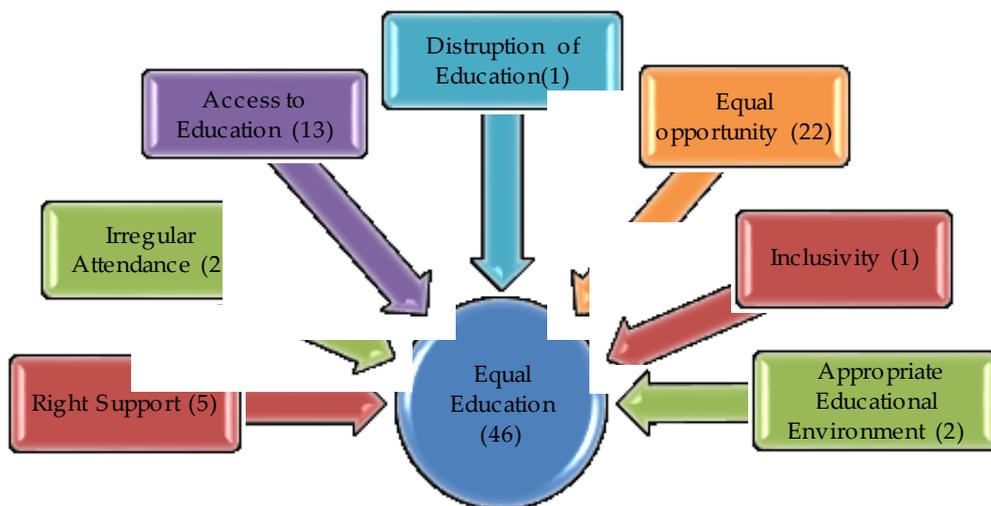
*“I think students have self-control problems.” (T19)*

*“In face-to-face education, students enter the school and classroom culture very early, socialize, make friends and acquire social skills. This did not happen in distance education. In face-to-face education, a student was learning to share while having lunch, cope with bullying, and compete in a sporting event. In this respect, it is difficult to gain such vital skills in distance education.” (T22)*

*“In this process, all students who have reached education or not have atrophy in their thinking skills such as creative thinking, critical thinking and analytical thinking.” (T23)*

### 3.3. Loss of Equal Education

According to the opinions of the participating teachers, the results regarding the loss of educational equity experienced by distance education students during the Covid-19 process are presented in Figure 4.



**Figure 4.** Equal Education Losses of Students in the Covid-19 Process

As seen in Figure 4, the losses experienced by students in terms of equal education during the Covid-19 process were determined as correct support, irregular participation, access to education, disruption of education, equal opportunity, inclusiveness and appropriate education environment. It has been expressed that students do not have the same opportunities in terms of infrastructure, technological equipment, regional opportunities, number of siblings and economic situation in distance education during the Covid-19 process, and this creates inequality of opportunity in education. In addition, in cases where the number of siblings is more than one, technological tools are not enough for everyone, and therefore, the student cannot attend all classes regularly. In addition, it was indicated that students do not access education regularly due to unsuitable conditions in rural and rural areas, lack of internet access or weak internet signal strength and power cuts. The majority of the students were not reached because attendance was not compulsory or they dropped out of the courses voluntarily, therefore the education did not cover all students. In addition, there was no one to help the student at home and there was no suitable educational environment. However, it was also indicated that the parents gave wrong help in this process and that this help created difficulties, for example, in teaching reading. Some of the sample teacher opinions are presented below:

*“In regions where internet infrastructure is not sufficient, students experience deprivation. Not every student has the same opportunity to access distance education materials (tablet, internet, computer, mobile phone, etc.).” (T1)*

*“Misapplications of parents who assume the role of teachers create situations that are difficult to compensate for in the future.” (T3)*

*“Those with more than one sibling had to use technology tools in turns. Therefore, they could not participate actively in every lesson.” (T5)*

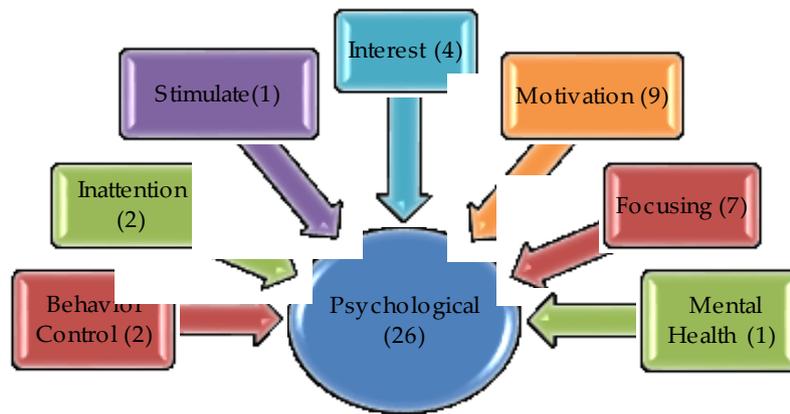
*“The fact that there is an unequal economic distribution in Turkey has further increased the inequality of opportunity in the distance education process.” (T6)*

*“One of the losses experienced during the pandemic process manifests itself as inadequacies in the home environment and lack of parental support.” (T8)*

*“Most of the students could not be reached. Sometimes they left the class because they were bored.” (T12)*

### 3.4. Psychological Losses

The findings regarding the psychological losses of the students during the Covid-19 process are presented in Figure 5:



**Figure 5.** Psychological Losses of Students in the Covid-19 Process

As seen in Figure 5, the psychological losses of the students during the Covid-19 process were determined as behavioral control, lack of attention, stimulation, interest, motivation, lack of focus, and mental health. It was stated that with the Covid-19 process, problems such as fear and anxiety emerged in students, which negatively affected their mental health. It was also expressed that students felt a lack of attention in the process, which negatively impacted their engagement in class and their learning. Students' unwillingness to learn causes them to be unmotivated. In addition, it was emphasized that in distance education, the lessons were taught irregularly, scattered, and without interaction, and students were interested in extracurricular situations. This causes a loss of focus in students.

On the other hand, there was a loss of interest due to the fact that attendance in the courses is not compulsory, the courses are knowledge-based, and low grades are received in the virtual exams. In addition, the irregular teaching of the courses and the thought that remedial training will be done for the subjects covered in distance education cause a loss of motivation in the students. Some of the sample teacher opinions are presented below:

*"The greatest losses of the students in this process are the decrease of the desire to learn, the unwillingness and the lack of motivation for teaching as before." (T1)*

*"In distance education or distance communication, the student cannot focus on a subject." (T2),*

*"Students who stay away from their friends and teachers are psychologically affected negatively. They lost motivation and had behavioral disorders." (T3)*

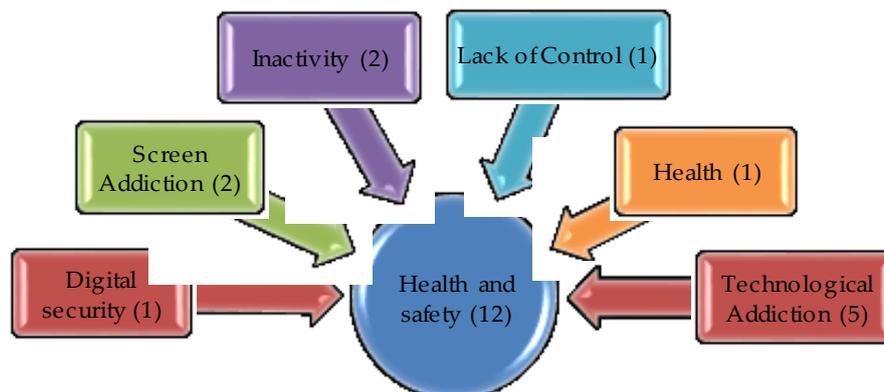
*"The fact that the lessons were one day in the morning and one in the afternoon (to reduce the intensity in EBA) created an indiscipline in the student. This made it difficult to focus on the lesson." (T4)*

*"An unusual pandemic can lead to various mental problems by causing fear and anxiety in children." (T21)*

*"There is a decrease in the interest and motivation of the students participating in distance education." (T22)*

### 3.5. Loss of Health and Safety

The findings regarding the health and safety losses of the students during the Covid-19 process are presented in Figure 6:



**Figure 6.** Health and Safety Losses of Students in the Covid-19 Process

As seen in Figure 6, the health and safety losses of the students during the Covid-19 process were determined as digital security, screen addiction, inactivity, lack of control, and health and technology addiction. In this process, students became more open to internet dangers and endangered their safety. In addition, screen addiction occurs because students spend a lot of time in front of the screen. Because students do not leave the house, they stay in front of the computer for a long time are inactive and experience health problems. However, it has been noted that students are left unsupervised in an environment exposed to dangers such as the internet and that parents do not control students in this process. The following are examples of some of the teachers opinions:

*“Students who spent this process sitting at home without doing any activity remained inactive.” (T4)*

*“Some parents didn’t even feel the need to supervise their own children.” (T5)*

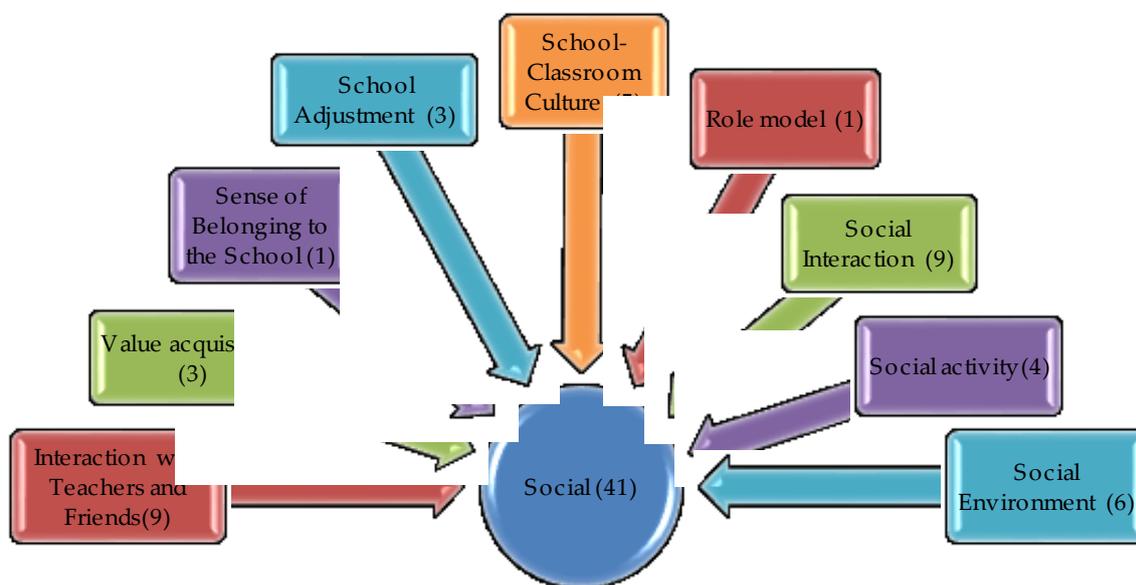
*“Students are exposed to the dangers that the internet can bring.” (T7)*

*“Children are sentenced to very long hours in front of the screen.” (T11)*

*“With the distance education process, technological tools, smart-phones and the internet have become the center of life for students. They had to spend hours with phones and computers in their hands.” (T17)*

### 3.6. Social Losses

The findings regarding the social losses experienced by the students during the Covid-19 process are presented in Figure 7:



**Figure 7.** Social Loss of Students in the Covid-19 Process

As seen in Figure 7, social losses of the students during the Covid-19 process were determined as interaction with teachers and friends, value acquisition, sense of belonging to school, school adjustment, school-classroom culture, role model, social interaction, social activity and social environment. It was stated that with the pandemic, students were deprived of the school’s social environment where they communicated and cooperated with each other, and they lost the school classroom culture. In this process, they avoided social activities such as playing games and having fun. Students become asocial because they do not interact with their teachers and friends. In addition, students’ social and cultural gains were negatively affected because they moved away from their role models. Also, moral learning and gains such as cooperation and sharing, which can only be gained by living, are negatively affected. As the length of stay at home increases, students, especially primary school students, have difficulty adapting to school. This situation weakens the sense of belonging to the school. Some of the sample teacher opinions are presented below:

*“The school provided an environment for students to socialize. With the pandemic, this situation has disappeared.” (T6),*

*“Due to the pandemic, students stay away not only from their schools, but also from their friends and teachers. Therefore, students cannot achieve some social gains.” (T13)*

*“Student staying at home moved away from the school climate as they spent time with computers and social media.” (T14)*

*“Children who were in front of the screen for a long time were deprived of various social activities.” (T18)*

*“There are problems in the adaptation of students to the school, and the socialization of students and their relationships with each other are affected.” (T20)*

*“Students lagged behind in terms of values because they did not observe their role models well enough.” (T26)*

#### 4. Conclusion and Discussion

In the research, the opinions of teachers about the learning losses of the students during the Covid-19 process were examined. According to the teachers' opinions, it was revealed that the students experienced academic losses, loss of skills, loss of health and safety, losses related to equal education, psychological losses and social losses in this process. In their study Engzell, Frey, and Verhagen (2021) stated that students who learn at home make little progress and that long school closures in countries with weaker infrastructure lead to greater learning losses. In the study, students learned less during quarantine compared to a normal year; It was observed that they experienced significant learning losses in the areas of mathematics, spelling and reading. However, in this process, disadvantaged students were disproportionately more affected. In addition, the learning loss dimension was found to be around 60% in less educated households compared to the general population. Therefore, it is predicted that when schools start face-to-face education again, disadvantaged children will find themselves behind their peers (Cooper et al., 1996). As Özer et al. (2020) stated, there is a risk that inequality between advantaged and disadvantaged students will increase much more during the pandemic process. Thus, the suspension of face-to-face education during the Covid-19 pandemic appears to raise anxieties over students' learning (Engzell, Frey & Verhagen, 2021).

According to the teachers in this study, one of the learning losses experienced by the students during the Covid-19 process is academic losses. Teachers stated that students experienced academic losses under 11 headings in this context. These losses are expressed as peer learning, active participation, loss of one-year time, course discipline, regular study, care about education, activity, learning, experience in learning, teachers' unfamiliarity with practice and practice. A document review shows that there are learning losses in the Covid-19 process (Sarı and Nayır, 2020). In the study conducted by Can (2021), 71.8% of Turkish teachers stated that they experienced learning loss in students' reading comprehension, interpretation and inference gains during the Covid-19 process. The academic losses experienced by the students in this process are the lack of infrastructure (Demir & Özdaş, 2020; Yılmaz et al., 2020; Zhang et al., 2020); inadequacy of technological tools such as computers and tablets (Bostan Sarıoğlu, Altaş & Şen, 2020; Özdoğan & Berkant, 2020); It is considered to be caused by reasons such as lack of internet (Bayburtlu, 2020; Kavan & Adıgüzel, 2021; Turan, 2020) and technical problems (Keskin & Özer Kaya, 2020; Turan, 2020).

The research, it was revealed that students experienced losses in terms of skill development during the Covid-19 process. It was stated by the participants that these losses were skills such as thinking skills, entrepreneurship, communication, self-control, problem-solving, social participation, basic skills, life skills and writing. In curricula, students can learn both at national and international level; It is talked about that the abilities they will need in their personal, social, academic and business lives should be gained. It can be seen that the programs aim to teach participants skills such as communication in their native language, communication in languages other than their own, mathematics proficiency, science and technology competence, digital competence, learning how to learn, social competencies, taking initiative and entrepreneurialism, and cultural awareness and expression (MoNE, 2018). Students' school attendance is fun and increases social skills and awareness. However, the closure of schools, even for a short period of time, may cause negative consequences for skill development (Burgess & Sievertsen, 2020). In order to gain competencies and skills, students need to encounter different activities inside and outside the school (Özdaş, 2019). In studies on skills acquisition (Bacanak, 2013; Gömleksiz & Kan, 2009; Selanik Ay & Acar, 2106), it is mentioned that students should actively participate in the learning-teaching process. It can be said that the closure of schools during the Covid-19 process and the fact that the lessons were held with distance education tools generally prevent activity-based studies.

Participants stated that the distance education process causes inequalities for students. These inequalities are losses such as access to education, disruption of education, equality of opportunity, inclusiveness and not having a suitable education environment. The negative effects of the pandemic process differ according to socioeconomic status. In this process, the closure of schools further increased inequalities among students (Haeck & Lefebvre, 2020). Problems such as not having technological tools, insufficient infrastructure for accessing education, not having physical space suitable for active learning (Pollock, 2020), and inadequacy of digital or printed materials (Kavan & Adıgüzel, 2021) are among the main causes of inequality. Another study mentioned that between two and nine percent of students may drop out of school due to schools being closed during the Covid-19 process (Dorn et al., 2020). The fact that the students were separated from their teachers caused a disruption in the relationship as well as the interaction that normally exists between the two parties. Students took part in educational activities at home with the support of their families, choosing those activities in accordance with the physical and technological opportunities available to them at that location. Students, who were generally deprived of teacher support due to the closure of schools, participated in the education process within their own means. This situation has highlighted the risk of learning loss especially for disadvantaged students (Özer et al., 2020). It is estimated that especially disadvantaged students living in rural areas and having difficulty accessing education experience more losses.

Participants stated that students experienced psychological losses during the distance education process. These losses revealed that they expressed an inability to control their behavior, lack of attention, lack of motivation, indifference, lack of focus and negative effects on mental health. Infectious diseases also affect the physical and psychological health and well-being of individuals. In the early stages of the pandemic, the physical consequences of the virus were emphasized, but mental health was not emphasized much. Mental health is important. Because the effect of the pandemic on mental health may last for years (Aşkın, Bozkurt & Zeybek, 2020). With the outbreak of the epidemic, students had to cope with various problems such as survival, academic difficulties and stress (Sood & Sharma, 2021; United Nations, 2020). This situation has highlighted the fact that they live with anxiety and fear for a long time and experience the psychology of illness (Görgülü Arı & Hayır Kanat, 2020). Factors such as restricting individuals' freedoms and the fear of losing loved ones also bring about psychological wear (Ekiz, İlman & Dönmez, 2020). In addition, the thought that the psychological effects of the pandemic will continue as well as its social effects (Görgülü Arı & Hayır Kanat, 2020) causes this uneasiness to increase even more. Therefore, it is predicted that during the opening of schools, students will have difficulties in adapting to the school, may have difficulties complying with the school's rules, and may experience physical and emotional problems.

Within the scope of the research, the participants stated that students experienced losses in subjects such as digital security, screen addiction, inactivity, lack of control, and health and technology addiction during the pandemic process. Health problems have negatively affected the perception of control of the Covid-19 outbreak (Ekiz, İlman & Dönmez, 2020). While digital technology offers ways to connect socially, overuse of digital devices can be negative in the long run. Research results indicate that a long time spent in front of a screen causes negative effects on health (Pandya & Lodha, 2021). In addition to the physical health problems directly caused by the virus during the pandemic, mental health problems such as anxiety, panic and anxiety occur due to the pandemic (Aşkın, Bozkurt & Zeybek, 2020). With the increased digital use, surveillance and privacy issues have also gained importance (De, Pandey & Pal, 2020). The fact that students continue their education with distance education tools has brought along the risk of encountering important problems such as technology addiction, cyberbullying, and violation of the use of personal data (Bayburtlu, 2020; Talan & Aktürk, 2021). Another issue that the participants emphasized is screen addiction. It is predicted that long-term exposure of students to the screen will have negative effects on issues such as obesity and eye health in the future.

Participants stated that in distance education during the Covid-19 process, students experienced losses in areas such as interaction with teachers and friends, value acquisition, sense of belonging to the school, adaptation to school, school-classroom culture, modeling, social interaction, social activity and social environment. The closure of educational institutions hinders providing basic services to children and communities (United Nations, 2020). Students need to be interconnected with their peers by establishing deeper relationships, and an intimacy that fosters a sense of security, togetherness and trust. However, situations such as the closure of schools and forced isolation caused changes in learned social habits (Serrano Sarmiento, Sanz Ponce &

González Bertolín, 2021). The limited social interactions that occurred during the pandemic created new routines where strict social and physical distance measures are applied. With the spread of the epidemic, curfews were imposed in almost all regions; schools, shopping malls etc. places of activity that require people to gather and interact have been closed (De, Pandey & Pal, 2020). It is thought that the social isolation created is at a level that can harm students' health, behavior and academic performance (Lessard & Schacter, 2020). Research indicates that losing or having to vary certain habits and routines negatively affects people's physical and psychological states and psychosocial stress (Wang, et al., 2020). It is thought that the social losses of students in a period when schools are closed and social isolation during the pandemic may cause some negativities both in their social relations and in adapting to the environment.

As a result, one of the problems that schools, teachers and parents have to deal with during the pandemic is the learning losses experienced by students. It is a fact that schools are closed almost all over the world during the Covid-19 process and as a result, students experience learning losses. It is expected that school administrators, teachers, students, parents and other persons/institutions will take measures to determine which areas students have lost in the Covid-19 pandemic and contribute to compensating for these losses.

## 5. Recommendations

When the research findings were examined, it was concluded that the students experienced learning losses in academic, skill development, equal education, psychological, health and safety and social areas during the pandemic process. According to these results, measures can be taken at school level to prevent losses. In order to make up for the academic losses of the students, make-up training can be held during the school opening periods and during the summer holidays. Counseling services can organize psychosocial seminars for students at all grade levels. Information seminars can be held for parents and teachers to make up for these losses. Skill workshops can be opened in schools to compensate students for their skill loss and to help students socialize. For this, local and national studies can be carried out to determine the responsibilities of the stakeholders and to enable the stakeholders to fulfill these responsibilities.

This study, examined teachers' opinions in depth with a qualitative research approach. The research was carried out based on teacher perceptions. Data collection based on teachers' perceptions is an important limitation of this study. This situation can bring about subjectivity. Another limitation of the research is the collection of data during the Covid 19 process. Trying to detect learning losses in a certain period of the process is an important limitation for the research. Another limitation of the research is the collection of data from a single province. However, the researchers tried to reduce the effects of this limitation by reaching out to teachers working at different educational levels as much as possible.

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