



## Analysis of Preschool Curricula Amid Covid-19 Pandemic and Post-Pandemic Period

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### Abstract

The purpose of this study was to examine the effects of the Covid-19 Pandemic on the implementation of the preschool curriculum from the perspective of teachers. The study, which was designed on a qualitative basis, was carried out with 31 preschool teachers determined with the purposeful sampling method. The data were collected via the interview form applied to the teachers who constituted the aforementioned study group. For the analysis of the data, content analysis was applied. For the analyses, the teachers' views were gathered under certain headings and coded. In the coding made by using the frequency technique, which is the complement of the qualitative data, the coding technique was used in accordance with the concepts obtained from the data. By combining these codes, certain themes were created. Next, the themes were described and interpreted with tables for easy understanding and explanation in line with the purpose of the study, and conclusions were drawn accordingly. On the other hand, it was thought that in the study, the technological addiction in question might be caused by the unconscious and misuse of these technologies rather than by the educational technologies used extensively during the pandemic process. The teachers constituting the study group predicted that human dimensions such as psychological and personality dimensions, self-care skills, and behavioral problems would come to the fore in relation to the pre-school curriculum in the post-pandemic period.

**Keywords:** covid-19 pandemic, preschool curriculum, preschool education, teachers' views

## **A. Introduction**

Regardless of age and level, formal education in schools is always conducted within the framework of a certain curriculum. This also applies to pre-school education, which is a planned and systematic formal education institution (Koçyiğit, 2007) since the objectives in preschool education can only be achieved with well-organized curricula (Sıddık, 2019; Bertrand, 2012; Morrison, 2012). However, the curriculum, which is a written learning plan (Şivgin, 2005), is not sufficient alone for the holistic development of the child (Aslan et al., 2016) or for his/her preparation for the society in which s/he will live (Şivgin, 2005). The achievement of the objectives of the curriculum is closely related to the implementation of the curriculum as much as to the curriculum itself because the transformation of the theoretical predictions in the program into the behaviors of the individual is possible with the teaching process, which is the implementation phase of the curriculum. Implementation of the curriculum is related to the three main elements of formal education: students, teacher, and the interaction with the curriculum. The intersection point of this interaction, which is called the teaching process, is the classrooms under the roof of the school. At least that's how it has been understood for many years. As this understanding continued for many years, face-to-face interaction with the context of time and place was seen as the nature of preschool education up until humanity confronted the Covid-19 Pandemic. The Covid-19 Pandemic has dealt a deep blow to the known meanings of face-to-face education and to the context of time and place in education.

The Covid-19 Pandemic, whose effects were seen in Turkey at the beginning of 2020, emerged in China in December 2019. Covid-19, which turned into a global epidemic (pandemic) in a short time, was defined as a new type of corona-virus by the World Health Organization (WHO) (TÜBA, 2020). The Covid-19 pandemic interrupted face-to-face education dependent on time and place in pre-schools as well as at all education levels in Turkey and in many other countries. According to the data of the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2020), the Covid-19 pandemic led to the closure of schools in 188 countries and caused an average of 92% of students to be deprived of face-to-face education (Can, 2020). In this process, a total of 25 million students in Turkey were affected. This number was 1,326,123 students at the preschool education level, which constituted the research topic of the present study (Bozkurt, 2020).

As in other education levels, the Covid-19 pandemic seriously damaged the familiar face-to-face education dependent on time and place in the context of pre-school education. Moreover, the Covid-19 pandemic has deeply affected the teaching process, which is the implementation phase of the program, one of the basic elements that make up the systematic formal education. Within this framework, it was not possible to implement the preschool curriculum, which was built on face-to-face interaction dependent on time and place. Instead, the preschool curriculum, which was built on face-to-face interaction dependent on time and place, had to be implemented through distance education independently of these, which means that with its implementation in virtual environment, the existing preschool curriculum, which was designed in accordance with face-to-face interaction dependent on time and place, transformed into something else

due to its distorted nature. The reason for this transformation is that curricula differ in line with the theories and understandings and the sources they are based on (Temel & İmir, 2010). Thus, the curriculum was designed on the basis of face-to-face interaction dependent on time and place, yet with the curriculum which was implemented in the virtual environment and which thus had a context changed, preschool children were deprived of the opportunity to experience the curricular activities by interacting with their teachers and friends. In this era, although it is claimed that virtual technologies provide the experience gained through face-to-face education (Baukal, 2013 cited in Yamamoto & Altun, 2020), this was not confirmed by the fact because serious complaints and reproaches regarding this issue are being received from almost every sector. As a matter of fact, according to Dewey, Piaget and Montessori, who are important educational thinkers, learning is an achievement that is possible by practicing and doing (Akay, 2013; Oktay, 2010, 161; Sakarya, 2019). However, although learning by doing and experiencing constitutes the nature of especially the education of preschool children, the virtual education environment based on the combination of education and technology seems to be an inevitable reality. This reality does not only depend on extraordinary developments that interrupt face-to-face education such as the pandemic but also seems to be the necessity in the 21<sup>st</sup> century (Özgüzel, 2018). According to experts studying on this subject, even if the pandemic disappears, virtual education will not pass; on the contrary, it will become the main ground of education (Yamamoto & Altun, 2020). Even if this prediction is not fully realized, it could be easily stated that the Hybrid Model, in which face-to-face and virtual environment are used together, will be put into practice. In terms of the topic of the present study, what needs to be discussed here is not to compare face-to-face education and virtual education but to achieve correct construction of the hybrid model in pre-school education, which is likely to come to the fore in the post-pandemic period. For this, it is quite important to benefit from the experiences regarding the Covid-19 Pandemic period (Anderson 2020, Zimmerman, 2020 cited in Bozkurt, 2020), which is the biggest social experiment in history tested on 1.6 billion students. In the light of this experience, what is to be done is to analyze the damages caused by the Covid-19 Pandemic on pre-school education and to plan how these damages will be compensated. In this respect, the perceptions, views and suggestions of the teachers, who are the practitioners of the curriculum and careful observers of students in the teaching process and who have experienced the Covid-19 pandemic, can guide the analysis in question.

In this context, the following questions were asked to the preschool teachers about the program as a result of the pandemic process and post-pandemic, which formed the general framework of the research.

- 1- Whether the current preschool program is sufficient?
- 2- Whether the pandemic has affected preschoolers?
- 3- How will the pandemic affect students in the future?
- 4- Post-pandemic pre-school education predictions?
- 5- Technology-based preschool predictions?

## B. Research Methodology

This study was designed and conducted using the qualitative design. In the study, purposive sampling compatible with this design (Grix, 2010, Marshall & Rossman, 2014 cited in: Baltacı, 2018) was used. While creating the purposeful sample, the classification conditions were determined as follows: the participants worked in pre-school education institutions in Şanlıurfa and Diyarbakır in the 2020/2021 Academic Year and experienced the Covid-19 Pandemic process. In accordance with this classification, a total of 31 preschool teachers were included in the study group. Thus, the three criteria for the selection of the sample in qualitative research, namely selection of the group to be studied, their characteristics and sample size, were met. Information about the teachers who constituted the study group is presented in Table 1.

Table 1: Personal information about the preschool teachers who constituted the study group

Personal Information	n	%
Gender	Female	27
	Male	4
Educational Background	Graduate	24
	Post-graduate	7
Professional Experience (Year)	1-5	7
	6-10	7
	11-15	16
	16 and longer	1
<b>Total</b>	<b>31</b>	<b>100</b>

### 1. Data Analysis

In this study, the data were collected with an interview form developed by the researcher. For this, a draft item pool was created as a result of literature review and interviews with five preschool teachers working in Diyarbakır. In the second stage, these items were presented to the opinions of two preschool experts and three educational science experts from the Education Faculty of Harran University. According to the feedback from the experts, the necessary corrections were made, and the interview form consisting of four personal information questions and seven open-ended questions related to the research topic was finalized. Thus, validity was determined by ensuring compatibility between the research purposes and the interview form, which aimed to determine the related views of the teachers. In content analysis, validity depends on the compatibility between the aims and tools of the study (Gökçe, 2006, Bilgin, 2006 cited in Karadağ, 2014). The reliability of the interview form was ensured by looking at the correlation between the coders (Yalçın, Yavuz, &lgün Dibek, 2015). In this respect, by looking at the divergence between the participant teachers' views they reported through the interview form, two forms with very divergent views from the general lane were eliminated, and reliability was determined by bringing together the compatible forms. The

use of multiple coders in qualitative research and the compatibility between these coders are considered to increase reliability (Creswell, 2016). In addition, for the purpose of increasing the reliability of the research (Merriam, 2013), in the analysis phase, the views of the participants in the interview form were often associated with direct quotations. The purpose in content analysis in qualitative research is to gather similar data within the framework of certain concepts (codes and categories) and themes and to organize and interpret them in an understandable way (Yıldırım & Şimşek, 2013). In this way, after trying to ensure the validity and reliability of the interview form, the ethics committee permission was obtained from the university where the researcher worked, and this form was submitted to the views of the study group via Google Drive due to the conjectural reasons caused by the Covid-19 Pandemic. In order to obtain healthy data in line with the research purpose, attention was paid to voluntary participation in the study. At the end of the process, which was open to participation for 45 days in the web environment, two of the 33 forms filled were eliminated because they were not found appropriate. Eventually, a total of 31 forms were analyzed.

The data collected in this way were analyzed using traditional content analysis in line with qualitative research and with the purpose of the study. Traditional content analysis is the technique in which coding categories are derived directly from text data to interpret the meaning from the content of text data (Kıral, 2020). In accordance with this analysis technique, the views of the participant teachers in their answers to the open-ended questions were first gathered under certain headings, and the codes with the most basic word characteristics common in these views were created. Three types of coding are mentioned in the literature: a) coding based on predetermined concepts, b) coding based on the concepts derived from the data, and c) coding within a general framework. In this study, "coding based on the concepts derived from the data" was used. This coding is the type of coding valid for research on non-theoretical topics (Strauss & Corbin, 1990 cited in Uysal, 2013). While conducting the content analysis, the codes and themes produced from the views of the participants were interpreted by comparing them with similar research results in order to increase the objectivity of the study.

While creating the codes, the frequency technique (Holsti, 1969 cited in Uysal, 2013) was used as a complement to the qualitative data. In the second step, the codes produced from the views of the participating teachers were converted into the categories of genre and style in these views, yet it was not possible to obtain regular categories. This may be not only due to the demographic characteristics of the participants such as different provinces, gender, working at school but also due to the virtual interview environment (Google Drive). As a matter of fact, it is stated in the related literature that skipping the category creation stage will not harm the nature of the qualitative study and even that this stage can be combined with the "Theme" (Karataş, 2015). Therefore, in the analysis, first coding was done, and the themes were then created accordingly. In this process, the codes produced via the views of the participating teachers were brought together and themes were produced as common titles. At the last stage, in line with the research purpose, the codes, frequencies and themes were presented in tables for easy explanation and

understanding (Arıkan, 2004, Balcı, 2001 cited in Uysal, 2013). Following this, the data in these tables were described and interpreted in the light of the related literature and with the support of the direct views of the participating teachers to draw conclusions. Coding was used in direct quotation from the views of the participant teachers. According to the example of "F<sub>11</sub>PG<sub>1</sub>:", the meaning of this coding was as follows: Here, "F" referred to female teacher; "M" to male teacher; "11" to his/her number in the study group; "UG" to undergraduate; and "PG" to post-graduate. In addition, "1" indicated professional experience by year (11-5 Years, 2, 6-10 Years, 3, 11-15 Years, 4 16 Years and longer).

### C. Findings and Discussions

#### 1. Adequacy of the Current Preschool Curriculum

The overall purpose of this study was to evaluate the preschool curriculum in the context of the Covid-19 pandemic and post-pandemic based on teachers' views. In this respect, it would be useful to take a look at the related perceptions of the participants before their views because the participants' views, which meant their ideas and judgments about the preschool curriculum (TDKBS, 2020), were not independent of their cognitive perceptions, which were the antecedents of their ideas and judgments. The participants' views about a subject develop depending on the sub-perception processes such as understanding, comparing, and interpreting the curriculum in the context of the Covid-19 Pandemic (Agarwal, 2009 cited in Taşkıran, 2010: 16). Therefore, before analyzing the participants' views about the preschool curriculum, it was important to determine their perspectives regarding the curriculum. Table 2 presents the related views of the participants.

**Table 2:** Teachers' Perceptions Regarding the Current Preschool Curricula

Theme	Code	Frequency (f)
Adequacy of the Curriculum	Adequate	13
	Inadequate	7
	Partly adequate	6
<b>Total</b>		<b>26</b>

The Theme named "Curriculum Adequacy" was determined via the responses given by the participants to the first question in the interview form. The code with the highest frequency that created this Theme was "Adequate" (f=13), which was followed by "Inadequate" (f=7) and "Partly adequate" (f=6), respectively. Accordingly, it could be stated that half of the teachers who answered this question had positive perceptions regarding the current preschool curriculum. Remembering that there is a linear relationship between the practical success of a curriculum and the teacher's attitude towards the curriculum (Karaman & Bakaç, 2018), it could be stated that this ratio was not sufficient. In related studies, the possible reasons for this were listed as teachers' lack of understanding the curriculum well (Siddık, 2019, Şıvgın, 2005), application problems (Tükel, 2017) and

physical problems (Can & Kılıç, 2019). The views of the participants could give a detailed idea about the reasons why their perceptions regarding the adequacy of the current preschool curriculum were not high. In relation to this, F<sub>4</sub>UG<sub>3</sub> reported her view saying "...it is not, stereotyped learning methods should be abandoned", while F<sub>11</sub>UG<sub>3</sub> said "...education could be given in more natural environments". In addition, F<sub>1</sub>UG<sub>1</sub> and F<sub>15</sub>UG<sub>1</sub> pointed to "lack of opportunities", while M<sub>19</sub>PG<sub>3</sub> drew attention to the qualification of the teacher. G<sub>27</sub>UG<sub>3</sub> and G<sub>28</sub>UG<sub>1</sub> also emphasized the lack of equal opportunities. Based on these findings, it could be stated that the perceptions of the teachers regarding the current preschool curriculum were not at the desired level. Among the reasons for this were the teaching methods, the educational environment and opportunities and the qualification of the teacher.

## 2. The Effects of the Covid-19 Pandemic on the Implementation of the Preschool Curriculum

The Covid-19 pandemic had profound influence on the implementation process of the preschool curriculum as in other education levels. In the study, these effects were discussed in two respects: current effects and future effects. The codes and themes produced based on the responses of the participants to the questions directed in this regard can be seen in Table 3.

**Table 3:** Effects of the Covid-19 Pandemic on Preschool Curriculum

Theme	Code	Frequency (f)
<b>Current effects of the pandemic</b>	It influenced socially	12
	It influenced in terms of communication	10
	It influenced in emotional respect	6
	It did not have any influence	2
<b>Total</b>		<b>30</b>
<b>Future effects of the pandemic</b>	It will hinder social and language development	9
	It will have negative influence on readiness	7
	It will hinder emotional development	6
	It will lead to technological addiction	6
	It will not have any influence (It will be forgotten)	2
<b>Total</b>		<b>30</b>

According to Table 3, the views of the participants about the effects of the Covid-19 Pandemic on the implementation of the pre-school curriculum revealed two themes: "Current Effects of the Pandemic" and "Future Effects of the Pandemic". Among these, the

codes that constituted the theme of Current Effects of the Pandemic were as follows: 'It influenced socially' (f=12), 'It influenced in terms of communication' (f=10), 'It influenced in emotional respect' (f=6) and 'It did not have any influence' (f=2). According to these findings, the participants thought that the Covid-19 Pandemic hindered the social, communication and emotional development of children by negatively affecting the implementation of the pre-school curriculum. The reason for hindering social development could be the fact that just as revealed by Civelek and Uyanık (2020: 163), the activities to be done as group activities were carried out as individual activities due to the pandemic. In relation to this, F<sub>5</sub>PG<sub>3</sub>'s view of "Yes, it affected. Preschool institutions were seen as institutions that would console children..." was remarkable in that the participant emphasized the mission imposed on preschool institutions other than education in this process. In addition, F<sub>27</sub>UG<sub>2</sub>'s view of "...because children are about to forget the concept of school. The dependency on the phone and tablet has increased exponentially. Children watch online classes as if they are watching television..." reveals the negative effects of the Covid-19 Pandemic on the implementation of the preschool curriculum. Among the participants, M<sub>19</sub>PG<sub>3</sub>, pointed to another dimension of the problem, saying "Yes, it prevented physical activities". Moreover, F<sub>30</sub>UG<sub>1</sub>, referring to another dimension of the problem, said, "... preschool children are in the concrete period and cannot understand abstract things correctly like adults, which causes these children to experience anxiety." In this respect, for the purpose of reducing the negative effects of the Covid-19 pandemic on children, which interrupted the implementation of the preschool curriculum, it is evidently important to inform them about this process because, due to their level of cognitive development, young children may have difficulty understanding and naming epidemics and may make anxiety-provoking judgements from an unrealistic point of view (Ercan et.al., 2020).

According to Table 3, the codes that constituted the second theme, "Future Effects of the Pandemic", were as follows: 'It will hinder social and language development' (f=9), 'It will have negative influence on readiness' (f=7), 'It will hinder emotional development' (f=6), 'It will lead to technological addiction' (f=6) and 'It will not have any influence (it will be forgotten)' (f=2). According to these findings, it could be stated that the participants were of the opinion that the pandemic would negatively affect the child in the future in social, linguistic, mental and emotional respects. It could also be stated that in this period, they had concerns about the potential of technology-based education to lead to technological addiction in children. According to three of the participants (F<sub>9</sub>UG<sub>3</sub>; F<sub>15</sub>UG<sub>2</sub>; F<sub>17</sub>UG<sub>1</sub>), it was possible for the pandemic to cause problems of trust and sharing in children in the future, and two of the participants (F<sub>25</sub>PG<sub>3</sub>; F<sub>26</sub>PG<sub>3</sub>) thought that the pandemic was likely to lead to anxiety, fear and panic in children. These could be seen as the details of the emotional development problems that the pandemic may cause in the future. As a matter of fact, it is pointed out that pandemics are traumatic situations with negative effects on the physical and mental health of all individuals (Perçinel-Yazıcı & Yazıcı, 2020). In addition, in related studies (Akoğlu & Karaaslan, 2020), it was reported that unpredictable and uncertain



situations such as the pandemic had psychosocial effects on children in the medium and long term.

### 3. Preschool Education in the Post-Pandemic Period

As in other education levels, it is a serious concern where preschool education can evolve at the end of the pandemic period (Post-Pandemic period). An important reason for this is the bewilderment and problems caused by being caught unprepared for the Covid-19 pandemic. Therefore, in order not to experience similar problems, it is important to foresee the possible forms of preschool education after the pandemic. The codes and themes obtained via the responses of the participants to the question directed about this in the study can be seen in Table 4.

**Table 4:** Predictions Regarding Preschool Education in the Post-Pandemic Period

Theme	Code	Frequency (f)
<b>Post-Pandemic Preschool Education</b>	Education with psychological and personality dimension	4
	Education focusing on behavioral problems	4
	Education according to self-care skills	3
	Education according to new trends	3
	It will be as in the past	2
<b>Total</b>		<b>16</b>
<b>Technology-Based Preschool Education</b>	No, it is not possible	12
	Yes, it is possible	8
	It is partly possible	6
<b>Total</b>		<b>26</b>

According to Table 4, two themes named "Post-Pandemic Preschool Education" and "Technology-Based Preschool Education" were determined via the participants' predictions regarding preschool education in the post-pandemic period. The codes that constituted the first theme were as follows: 'Education with psychological and personality dimension' (f=4), 'Education focusing on behavioral problems' (f=4), 'Education according to self-care skills' (f=3), 'Education according to new trends' (f=3), and 'It will be as in the past' (f=2). When these codes were examined, it was found striking that there was a great similarity between the participants' predictions regarding preschool education for the post-pandemic period and the objectives of the current curriculum. The objectives of the current preschool curriculum could be said to include ensuring children's development of body, mind and emotion, allowing them to acquire good habits, preparing them for primary school and allowing them to speak Turkish correctly and beautifully (MNE, 2013). The participants' predictions regarding the post-pandemic similar to the current

curriculum objectives could be regarded as their expectations in a sense. Looking at these expectations, it could be stated that mostly the human-related dimensions were emphasized. Examples of this included the following: F<sub>9</sub>UG<sub>3</sub>'s view of "Their feelings like love, compassion, sharing, etc. should be supported" and F<sub>14</sub>UG<sub>1</sub>'s view of "A bit more focus should be on self-care skills". In relation to focusing on children's behavioral problems in the post-pandemic period, F<sub>15</sub>UG<sub>2</sub>'s prediction of "There will be children with behavioral problems" was remarkable. Therefore, it could be stated that the related predictions of the participants were in line with the values of the 21st century (Genç & Eryaman, 2007), in which the rediscovery of human values will be important.

In addition, when the codes that constituted the theme of "Technology-Based Preschool Education" were examined, it was seen that the participants did not consider the prediction of technology-based preschool education to be likely [(No f=12 and Partly f=6)]. Based on these findings, it could be stated that the participants did not foresee technology-based preschool education for the post-pandemic period. This may be due to two possible reasons. First, the participants did not adopt pure technology-based education for preschool education. For example, F<sub>5</sub>PG<sub>3</sub>'s view of "It is partly technology-based. We can neither abstract it nor say that technology is our sine qua non" was important. Similarly, F<sub>7</sub>UG<sub>2</sub>'s view of "...preschool education could be supported with technology, but I think technology should never be in the center" and F<sub>22</sub>UG<sub>2</sub>'s view of "...Preschool education should be face-to-face and interactive, but it should also be supported with technology" were parallel. In relation to this, the following view of F<sub>29</sub>UG<sub>2</sub> clearly reflects the participants' expectation that preschool education should be technology-supported rather than purely technology-based: *"Preschool education can be more productive by allowing practical, face-to-face and teacher-student communication. Of course, education could be more efficient with the use and support of visuals, music, and other similar technologies"*. In relation to this, F<sub>30</sub>UG<sub>1</sub> went a step further and said "Yes, it should be. If the ratio of use of technology in preschool education had been higher before the pandemic process, children would not have been affected so much in terms of education."

The second possibility was the participant teachers' negative experiences in distance education during the pandemic. However, it is a fact that our country, just like the rest of the world, was caught unprepared for this process and that there were thus many deficiencies not only in relation to the curriculum content and its presentation but also regarding the technological equipment during this time. This situation should not be ignored in the experiences of the teachers in the study group because although it does not replace face-to-face education, the opportunities provided by technology-based education, which offers richer content and faster access to education (Firat, 2016: 143) with all its well-organized dimensions, cannot be ignored. It could be stated that the teachers who constituted the study group did not consider technology-based preschool education to be possible because they did not have the potential to predict the future. This situation could be said to be supported with the fact that nearly half of the participants did not express any views about the form which pre-school education can evolve into in the post-pandemic period; that three of the respondents referred to the generally accepted

prediction of “new trends”; and that two participants thought nothing would change in the post-pandemic period. Examples of this included F<sub>5</sub>PG<sub>3</sub>'s view of “Everything will become stable after the pandemic. I don't think it will be bad” and M<sub>20</sub>PG<sub>2</sub>'s view of “...the approaches existing in the world should be taught, and specialization in at least one approach should be ensured.”

#### **D. Conclusion and Suggestions**

##### **1. Conclusion and Suggestions Regarding the Teachers' Perceptions of Current Curriculum**

About half of the teachers constituting the study group had positive perceptions regarding the current preschool curriculum. Considering the fact that positive attitudes of teachers are quite important for the success of a curriculum in practice (Tan-Şişman & Kerkez, 2019: 264), it could be stated that this level of perception is not sufficient. According to the related views of the participant teachers, the reasons for this included the teaching methods, educational environment and opportunities, and teacher qualifications. What is striking here is that these reasons were mostly related to the implementation phase of the curriculum. This was probably related to the low level of curriculum literacy knowledge and skills of the teachers and the lack of physical infrastructure and equipment of schools because a teacher with a low level of curriculum literacy cannot be expected to fully understand and implement the curriculum (Erdamar, 2020). The implementation of a curriculum, which is closely related to the quality in education, has a direct relationship with the teachers' full and correct understanding of the curriculum and their ability to put it into practice (Baş, 2016). Of course, for this, the curriculum in question must be applicable in real situations (Karaman & Bakaç, 2018). In this respect, based on the teachers' views, it could be stated that the current preschool curriculum was not fully compatible with the realities of Turkey in terms of both physical infrastructure and equipment and related access opportunities. Regarding this, it would be beneficial for the Ministry of National Education (MNE) to improve the practical conditions of the current curriculum at this level by organizing activities to increase the curriculum literacy knowledge and skills of preschool teachers. Another possible reason why the current curriculum perceptions of the teachers constituting the study group were not at the expected level could be the characteristics of the teachers such as their philosophical and pedagogical beliefs because it is known that teachers' beliefs are regarded as an important factor that determines in-class teaching behaviors (Pajares, 1992 cited in Murat, 2018, Ekinci & Tican, 2017). In this respect, it is suspected there is a mismatch between the beliefs of the teachers constituting the study group and the philosophical and pedagogical nature of the curriculum they implemented. In relation to this, the research results in the literature pointing to this inconsistency justify this suspicion (Karaman & Bakaç, 2018; Akyıldız, 2018; Özdemir, 2013).

## **2. Conclusions and Suggestions Regarding the Effects of the Covid-19 Pandemic on Preschool Education**

The Covid-19 Pandemic, which has transformed the 2020-2021 period into virtual education in Turkey as well as in the whole world, has deeply affected all education levels (Balci, 2020). To give an idea, according to UNESCO data, in April 2020, 1.6 billion children and young people (91% of students) from pre-school to higher education worldwide were adversely affected by the pandemic (Boğar, 2020). According to the teachers participating in the present study, the Covid-19 pandemic had negative effects on the implementation phase (teaching process) of the pre-school curriculum, and these negativities will have reflections upon the future. The most important all is the negative impact on the social development of children, which was followed by communication skills and emotional development. The participant teachers listed the future possible negative effects of the pandemic as social and language development, readiness level, emotional development and technological addiction. Similarly, it was reported in related studies that the pandemic harms the educational and social development of children and that this may cause mental, social, emotional and behavioral problems in the short and long term (Günay, 2020; Çelik, 2020). With the effect of the pandemic, the school has ceased to be the known school, and unfortunately, the house where education is conducted from distance did not serve as the school (Bulut, Çakıcı & Yazgan, 2020).

The teachers in the study group also drew attention to technological addiction among the above-mentioned negative effects of the pandemic and their future reflections. Indeed, the relationship between technology and education was one of the most discussed issues after the epidemic during the pandemic process. In these discussions, the focus was on many dimensions such as whether technology is an opportunity or a threat. What was not mentioned in these discussions was the fact that, as Engler (1972) puts it, technology is an integral part of education in our era (cited in Sayan, 2016). However, in 2020, which was mostly a virtual education year, technology-based education (here the virtual and digital technologies) was compulsorily tested in the form of distance education in almost all countries and at all education levels, showing that the reality in question is not simple but has many different dimensions. One of these dimensions is that the advantages and disadvantages of technology-based education depend on the way it is used. As a matter of fact, according to Göken & Turan (2020), the risks such as addiction caused by technology-based education are related to lack of its conscious use. Therefore, as mentioned by the teachers in this study, it was possible that the inappropriate use of technology in technology-based distance education which condemns children to the screen and keyboard during the pandemic process might lead technology addiction in children. The fact that these inappropriate usages are caused by the system, curricula, families and children does not change the situation. It seems that the risk and problem of technology addiction during and after the pandemic will be on the agenda of the school as well as of the parents (Öztürk, 2020). What needs to be done should be to organize awareness and educational activities such as "We Protect Children from the Virtual Enemy" in order to raise awareness of parents, as the Near East University did. It would be beneficial for both

the Ministry of National Education and the school administrations to provide preschool teachers with training on understanding the relationship between technology and education and using educational technologies correctly.

### **3. Results and Suggestions Regarding the Preschool Education Predictions for the Post-Pandemic Period**

In Turkey as well as in the whole world, the effects of the Covid-19 Pandemic are still alive, and discussions have started on what could happen in the post-pandemic process. In this, the total education system was caught unprepared for the pandemic in the course of time. In this respect, open and distance education will become the main source of learning after the pandemic (Can, 2020), and predictions and estimations about education are of great importance in terms of taking the necessary precautions and determining the role of technology in education (Bulut, Çakıcı, & Yazgan, 2020). Moreover, this is among the main functions of educational institutions. Education is an institution that prepares people for the future (Özgüzel, 2018). In the study, according to the predictions of the teachers who made up the study group, the following dimensions will come to the fore in pre-school education in the post-pandemic period: Psychological and personality dimensions, behavioral problems and self-care skills. What is striking here is the great similarity between these predictions and the objectives of the current preschool curriculum. This similarity might be related to the visionary structure of the current preschool curriculum, which foresees the present and the future. However, the structuring of a curriculum in a way to meet the needs of today and the future without being exposed to any change is against the nature of the curriculum, which is quite a dynamic process (Özdemir, 2009). In the study, it was a remarkable result that the post-pandemic predictions of the teachers who constituted the study group overlapped the requirements of the 21<sup>st</sup> century education characteristics, which are said to be human-oriented (Genç & Eryaman, 2007). The fact that the study group teachers did not foresee pure technology-based education for the post-pandemic period could be related to the fact that they found technology-supported face-to-face education, or the hybrid model, more suitable for the pre-school education level. As a matter of fact, the most effective model for the teaching-learning process is neither the traditional approach nor the pure technology-based approach. What is actually essential is to take the prominent features of both approaches and to use them together (Gülbahar, 2005). In this respect, instead of denying virtual and digital technologies (Sirer, 2020), which are a reality of today's education, the "correct" learning technologies should be associated with the "correct" learning strategies (Singh & Reed, 2001, cited in Kök, 2018) so that the effectiveness of the preschool curriculum can be increased. At this point, the hybrid education model, which blends face-to-face education with virtual and digital education opportunities (Selçuk, 2016), has the potential to provide significant expansions for pre-school education.

According to the findings obtained from the research; nearly half of the teachers who participated in the research stated that they found the current education program partially sufficient and insufficient. In addition, the teachers stated that there were problems in

social, communicative and emotional aspects in the implementation of the preschool education program during the pandemic, and that after the pandemic, it would have negative effects on students' social, language and emotional development resulting from the pandemic, technology addiction and readiness. In addition, the participants talked about pre-school education after the post-pandemic; They predicted that education would be reshaped according to behavioral problems, self-care skills, new trends, psychological and personality dimensions. Finally, more than half of the preschool teachers who participated in the research stated that a technology-based education program could be applied after the pandemic due to the effect of the pandemic.

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