

Examining the effect of technology integration on behavior management in preschool period

Özge Özel^{1*}  Betül Ersoy² 

¹ Early Childhood Education, Faculty of Education, Mehmet Akif Ersoy University, Burdur, Türkiye.

² Master's Student, Early Childhood Education, Faculty of Education, Mehmet Akif Ersoy University, Burdur, Türkiye.

Article Info

Keywords

Preschool period,
Behavior management,
Technology use,
Classroom management,
Undesirable behaviors.

Article History

Received 14.04.2024
Received in revised form
08.08.2024
Accepted 19.08.2024

Article Type

Research Article

Abstract

This study aims to examine the effects of behavior training provided using technology on the behaviors of preschool children who have difficulties in behavior management or who have behaviors that need to be improved. The study was designed as action research, which is one of the qualitative research methods. By convenient and purposive sampling, the participants include 2 preschool teachers and 10 preschool children working in kindergartens affiliated with the Ministry of National Education (MoNE) in Antalya province. In the study, two sessions of semi-structured interviews, one before and one after the training, were used as data collection tools to determine the students who had difficulty in behavior management and to determine the behavioral changes in children after the training process. The observation method was used to collect data on the behavior change process of children who received technology-supported behavior management training. The data was analyzed by applying the descriptive analysis method. The results were explained under the themes of teachers' views on classroom management and the difficulties they experienced in classroom management, undesirable behaviors in the classroom environment, practices to eliminate undesirable behaviors and ensure classroom management, and alternative suggestions for classroom management. Depending on the research results, suggestions for teachers and researchers were also presented. In classroom management, undesirable behaviors in the classroom environment, practices to eliminate undesirable behaviors and ensure classroom management, and alternative suggestions for classroom management. Depending on the results of the research, suggestions for teachers and researchers were also presented.



1 Introduction

Effective and efficient classroom teaching and learning activities constitute a large part of learning. Some situations must be controlled for effective and efficient educational activities. Teachers have important duties here. An effective teacher is a person who knows how to teach and how to solve the problems encountered in this process, as well as determining and practicing how to apply what he/she knows (Açıköz, 2003).

Cite: Özel, Ö., & Ersoy, B. (2024). Examining the effect of technology integration on behavior management in preschool period. *Pedagogical Perspective*, 3(2), 211-226. <https://doi.org/10.29329/pedper.2024.50>

*  Contact: ozgeozel@mehmetakif.edu.tr

© 2024 The Author(s). Published by Pedagogical Perspective. This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.



For effective and efficient teaching, classroom environments should be ready for this situation. Some situations should be under control so that students can receive information in the classroom. The most important of these is classroom management. Teachers' skills in classroom management are very important. However, sometimes teachers have difficulties in classroom management, and no matter how developed these skills are, they experience disruptions in education and training. Student behavior is one of the most important factors that disrupt educational activities and affect the flow of education (Ataman, 2003). Students show undesirable behaviors in the classroom environment, which creates difficulties for teachers in classroom management. These behaviors are behaviors against discipline that negatively affect classroom interaction and are generally undesirable in the classroom (Çakır et al., 2010). There are various strategies that teachers use to eliminate these behaviors. These strategies vary from teacher to teacher and even from student to student, depending on the reason for the emergence of the behavior, the frequency of the behavior, the time of the behavior, and the nature of the various factors affecting the behavior. For this reason, the teacher should analyze this situation well when faced with a behavioral problem and try to direct attention to positive behaviors without drawing attention to negative behaviors (Gangal et al., 2019)

Many reasons can cause behavioral problems. Factors such as traumas experienced by children in early periods, socio-economic-cultural differences of the family, living environment, sibling and peer group variables, family attitudes, and screen and technology addiction can affect undesirable behaviors and disrupt educational activities. Recently, it is known that the widespread use of technology, especially by children, has led to behavioral changes in children. The long time allocated to technological games and screen addiction limits the time children spend together, reducing group games and face-to-face interaction. Playing games alone increases (Rosen et al., 2014). Thus, children have difficulty exhibiting the right behavior in groups.

It is thought that the preschool period is the first social structure children encounter after the family and that they encounter rules, especially in this structure. Children who encounter society at school have difficulty responding correctly and adapting to society. When technology, which is thought to prevent the socialization of children when used incorrectly, is not used correctly, it is impossible to expect correct behavior in children. The correct use of technology is important. Especially in early childhood, if the right technological content is presented to children with the right time element, it is thought that positive behaviors will increase, behavioral problems will decrease, and thus, children will exhibit more harmonious behaviors in school and other social environments. Thus, behavioral problems that will affect teachers' classroom management can be minimized. Because taking precautions before a problem occurs will be much easier than trying to find a solution to the problem after it occurs. If teachers reflect on their time and effort in dealing with undesirable classroom behaviors in educational activities, education and training will be more efficient.

Preschool education is becoming more and more widespread all over the world. Children have their first institutional experiences, especially during this period. The quality of these first experiences also affects children's development. In addition to being a guide and model for children, the teacher should facilitate learning as a person who is in close and intimate communication with them (Açıkgöz, 2003). To facilitate this and to realize education and training activities effectively, the teacher has a lot of duties. Teachers should also be effective in providing effective education and training activities. Occasionally, situations that disrupt education and training activities may be encountered. An effective teacher is not a person who knows the

solution to these problems but a person who can apply what he/she knows in the right place at the right time and with the right method (Açıkgöz, 2003). Teachers' knowledge and experience in classroom management and their ability to apply them can increase their educational success.

Classroom management skills can be classified as follows: managing instructional activities, procedures, and routines, ensuring the physical order of the classroom, and managing students' behaviors (Sanford & Emer, 1987). There are factors affecting this management in the preschool period. These factors include the educational environment, family participation activities, and implemented education programs (Akar et al., 2010). The fact that preschool children encounter many rules during this period is another factor that affects classroom management.

The problems encountered by children during this period can be classified as behavioral problems and habit problems. Behavioral problems are problems such as irritability, incompatibility, jealousy, verbal and physical aggression, crying, shouting, stubbornness, tantrums, not sharing, and not helping. Habitual problems are problems with cleaning, sleeping, and eating. In addition, the intensive use of technology today triggers undesirable behaviors in children (Kalkan, 2021).

Gangal and Öztürk's (2019) discussed undesirable behaviors under four headings. These are tolerable behaviors, minor problems, important but limited impact problems, and increasing and spreading problems. The methods used by the teachers in dealing with these behavioral problems were classified as frequently used methods and infrequently used methods and shown with diagrams. Some frequently used methods are punishing, interrupting, warning, interrupting communication, ignoring, explaining the correct behavior, removing from the classroom, and reminding the rules. Some of the methods that are not frequently used are directing children to make them happy, trying to get rid of excess energy, ensuring silence, and reinforcing positive behaviors. As a result of the study, it was found that teachers preferred frequently used methods and strategies more than infrequently used methods and strategies.

Several variables contribute to the emergence of undesirable behaviors in children. Some of them are:

- Environmental Factors: Classroom layout, noise levels, and overall classroom climate all have an impact (Hobbs & Westling, 2010). Overcrowded classrooms and inadequate physical surroundings can cause stress and lead to behavioral issues.
- Individual Factors: Children's conduct is influenced by their individual features, such as temperament and developmental abnormalities (Pienta et al., 2007). For example, children with ADHD may struggle with impulse control, resulting in disruptive behaviors.
- Family and socioeconomic factors influence behavior (Bradley & Corwyn, 2002). Children from underprivileged households may demonstrate increased behavioral difficulties because of pressures associated with poverty and instability.
- Peer relationships can positively or negatively impact behavior (Wentzel, 2009). Peer rejection or bad peer relations can lead to hostility or disengagement.

On the other hand, teachers use various methods to deal with undesirable behaviors. These methods may vary from teacher to teacher and according to the classroom and school organization. Some frequently used methods are punishing, interrupting, warning, interrupting communication, ignoring, explaining the correct behavior, removing from the classroom, and reminding the rules (Gangal & Öztürk, 2019). Some methods not frequently used are directing children to make them happy, trying to get rid of excess energy, ensuring silence, and reinforcing positive behaviors (Gangal & Öztürk, 2019). Effective management of undesired behaviors requires a combination of proactive and reactive strategies:

- Proactive Strategies: Establishing a positive school environment through clear expectations, disciplined routines, and positive reinforcement (Sprick, 2006).
- Reactive Strategies: Use consistent consequences for behavior, such as time-outs or behavioral contracts, to address and modify unwanted behaviors (Walker et al., 1996).
- Collaborative Approaches: Bringing together parents, school counselors, and psychologists to help children with behavioral issues (Sheridan et al., 2009). Collaboration ensures a comprehensive approach to resolving underlying issues that contribute to behavior.

Undesirable behaviors can have serious consequences for children's academic and social-emotional development.

- Academic Achievement: Persistent disturbances in the classroom might impede learning for the disruptive child and their peers (Alexander et al., 1997).
- Social-Emotional Development: Behavioral difficulties can impact peer interactions and social integration (Ladd et al., 1999). Children with behavioral issues may face social rejection or isolation.

Ekici et al., (2017) found no significant difference in the classroom management skills of preschool teachers according to age, institution, number of students in the class, marital status, and whether they received training on classroom management. However, it was seen that preschool teachers' classroom management skills differed according to professional seniority. Also, the classroom management skills of preschool teachers with a professional seniority of 10 years or more were higher than the others.

From the past to the present, there has been an increase in the use of technology. Although various publications, training, and experts warn about the conscious use of technology, conscious use is not always possible. Especially this unconscious use causes addiction. Technology addiction leads to cognitive, physical, psychological, and social problems in children and young people (Kalkan, 2021). Excessive and improper use of technology can cause behavioral problems in children (Kalkan, 2021).

In the preschool period, children have difficulty controlling themselves in this sense and are more prone to dependency. However, with the correct use of technology, especially in this period, children's development areas are supported by providing rich content and diversifying education (Sayan, 2016). Technology can be considered a method that attracts children's attention, motivates them, and facilitates teaching. In this way, the teacher will set an example for children by using technology consciously and will create awareness in children to use technology consciously and positively (Kuzgun, 2017).

Aksoy (2021) determined that teachers used technology mostly while listening to music and watching cartoons and stories. He also stated that the use of technology in education contributes to children's language and cognitive development, and this way of teaching increases children's interest, and children participate more motivated. However, according to this study, some teachers stated that technology could harm children's social and emotional development. Teachers generally stated that children should not use technology alone and that they should use it under the control of teachers or parents.

In addition, the use of technology in early childhood education is becoming more common, with many educators using digital tools to improve learning and manage classroom behaviors such as:

- Enhanced Engagement and Motivation: Technology can dramatically boost preschoolers' engagement and drive. dynamic technologies, such as educational games and apps, offer interesting and dynamic experiences that hold children's attention and interest. According to research, youngsters who use technology are more likely to participate in activities and exhibit positive conduct.

- Individualized Learning Behavior Support: Digital tools can be customized to match each child's unique needs, resulting in personalized learning experiences. This customization can also be applied to behavior management, where specific apps can track and promote positive actions. According to research, such tailored techniques can improve behavior outcomes by providing children with rapid and detailed feedback on their activities (Taylor et al., 2021).
- Positive Reinforcement through Digital Rewards: Digital rewards, such as virtual stickers or points, can successfully encourage positive preschool actions. These reward systems can be linked to educational apps, offering instant gratification and encouraging the repeat of favorable activities. According to research, digital rewards can successfully motivate good behavior as traditional approaches like praise or tangible awards (Higgins et al., 2012).

Therefore, this study aims to examine the effects of behavior training using technology on the behaviors of preschool children who have difficulties in behavior management or who need to be improved. Within the scope of the research, the following question was sought to be answered:

- What are the children's undesirable behaviors in the classroom?
- What are the teachers' methods to overcome children's undesirable behaviors in the classroom?
- What is the effect of technology integration on children's undesired behaviors in the classroom?

This research is important in that it is thought that behavioral training to be given to preschool teachers with undesirable behaviors in their classrooms through technological content that children will like may have positive effects on children and that teachers have content that they can use in behavioral training. This research is also important in providing alternative suggestions for classroom management after interviewing teachers. In addition, when the studies were examined, it was seen that there were studies that mainly dealt with teachers' views on undesirable behaviors in the classroom. It is thought that the fact that this research was conducted with students will contribute to the field

2 Method

2.1 Design

This study was conducted using a qualitative research method. According to Merriam (2013), in qualitative research, researchers try to understand the meanings created by the people they study and are interested in how they see the world. Qualitative research is a model that enables a topic to be explored and examined in depth (Patton, 2014). This research was designed as action research. Action research is used when specific information about a problem is required or when a new approach to an existing situation is planned. In addition, action research helps teachers to alleviate the problems encountered in the teaching process and arising from teaching (Köklü, 2019). Since this study intends to explore the effects of behavior training using technology on the behaviors of preschool children who have difficulties in behavior management or who need to be improved, action research was applied as a research method.

2.2 Participants

In this research, the convenience sampling method was used. Convenient sampling method is one of the purposive sampling methods. Convenient sampling method was chosen to conduct the research faster and at the same time in a practical way. It will not be possible to examine all information sources representing the universe (Yıldırım & Şimşek, 2013). Convenient sampling is to reach people who have knowledge or experience about the subject to be examined from information sources in a way that is appropriate for the purpose of the research within the framework of the determined subject. The population of the study group consists of preschool children. The sample consists of 2 preschool teachers in Serik district of Antalya, and 10 preschool

students determined after the interview. The parents of the children were informed about the training, and the necessary permissions for participation were obtained from the parents in writing. In addition, permission was also obtained from the two participating teachers.

Table 1 Demographic characteristics of the participating teachers

Participants	Age	Gender	Years of Experience	Numbers of Students
T1	43	Female	19	21
T2	38	Female	16	25

2.3 Measures and procedure

This study used a semi-structured interview form to obtain data, and participants were interviewed. The semi-structured interview is a qualitative data collection strategy in which the researcher/interviewer does not follow a list of fixed and stereotyped questions, and the researcher seeks information by asking predetermined but open-ended questions to the informants. Open-ended questions allow participants to describe their experiences and thoughts (Roberts, 2020).

The interview form used in this study consists of 11 questions developed by the researcher based on the subject matter and research questions utilizing the literature and consulting expert opinion. The data collection process also included technological content prepared for students.

The researcher conducted interviews with the participants. As a result of the interviews with the participants, the researcher determined the behaviors of the students who had difficulty in behavior management in their classrooms, and the researcher created the related training materials. The topics identified as the most needed are order, expressions, and behaviors of courtesy, helping, sharing, and getting permission. The visuals related to the topics are included in the findings section of the study.

A 3-week training program consisting of 6 sessions was planned for children. Each session lasted 20-25 minutes. The content related to the topics was prepared using Web 2 tools called 'Jigsaw Planet,' 'LearningApps,' 'StoryJumper,' and 'Wheel of Names.' Care was taken to prepare the topics with different programs. The contents were introduced to the children on the smart board before the education hours. The story and game contents were planned so children could participate willingly and internalize the classroom rules.

In the first session, introductory games were played to ensure group belonging of children from different classes. The researcher also made observations during this session, and the results of the observations were recorded. Observations are included in the findings section.

Children's turn-taking, speaking, and listening skills were also supported throughout the training sessions. In the second session, children were introduced to the smart board and discussed technology use. Technological tools in their homes and their use were discussed. Information was given about cyber security. It was mentioned that technology is an educational material when used correctly.

In the other four sessions, the game content prepared for the children was played as individual and group games. In each session, the children were reminded of the previous session, and their skills of waiting for their turn, speaking, listening, and asking for permission continued to be supported during the game. At the end of the sessions, they were reminded to share the information they learned with their class teachers and friends and apply it in their classrooms.

After the training program, the teachers were interviewed again using an interview form, and their opinions about whether there was any change in the children's behaviors because of this training were taken. The researcher's observations during the training process were included.

2.4 Data analysis

The records of the semi-structured interviews with the teachers in the study group were analyzed using the descriptive analysis method. The descriptive analysis method mainly aims to reveal concepts and relationships between concepts to explain the data. The data obtained in the descriptive analysis method are organized into categories previously determined by the researcher (Yıldırım & Şimşek, 2013).

2.5 Validity, reliability, and ethical considerations

To ensure validity in qualitative research, Yıldırım and Şimşek (2008) suggest clarifying the analysis methods and reporting the findings thoroughly. The study's validity was ensured by outlining the analysis steps and detailing the findings. In addition, reliability was verified by seeking a second expert opinion on the interview questions. In addition, two different researchers coded the data individually before creating codes and themes. The inter-coder reliability coefficient was 92 percent. Yıldırım and Şimşek (2008) suggest that dependability in qualitative research can be achieved by participant confirmation or expert opinions.

The necessary permissions to conduct this study were obtained from Burdur Mehmet Akif Ersoy University Non-Interventional Clinical Research Ethics Committee with the decision numbered 2023/506 on 30.11.2023. All ethical rules were followed before, during, and after the data collection.

3 Findings

The findings were examined under the themes of teachers' views on classroom management and the difficulties they experienced in classroom management, undesirable behaviors in the classroom environment, practices to eliminate undesirable behaviors and ensure classroom management, alternative suggestions for classroom management, and observations about the students participating in the training. The researcher created these themes in line with the data analysis.

3.1 Teachers' views on classroom management and difficulties they experience in classroom management

Participant were asked about their views on classroom management and whether they had difficulties in classroom management. Both of our participants stated that they occasionally had difficulties in classroom management and that some children had difficulty internalizing classroom rules. T1 stated that the small size of the classroom environment and the lack of playgrounds where children could release their energy caused this situation. Regarding this issue, T1 said, *"This year, our class is very crowded. For this reason, I have difficulty in classroom management from time to time. Failure in classroom management can disrupt educational activities. I want to focus children's attention on activities and continue educational activities without problems. The undesirable behaviors I observe in some students in the classroom environment negatively affect this process. Dealing with behavior management more than necessary affects the teaching process negatively"*. T2 said, *"At the beginning of the year, we created classroom rules with the children. However, I observe that some of my students still*

have difficulties in this regard”.

Again, related to this issue, T2 stated that it was necessary to deal with the students who showed these behaviors in the classroom one-on-one, but he had difficulty in such situations due to the high-class size. T1, on the other hand, stated that there was no separate environment to deal with the student in such situations that he had to continue education with other children and that he had difficulties in this regard.

3.2 Undesirable behaviors in the classroom

In the interview with the participants, the teachers were asked about the behaviors they categorized as undesirable behaviors in the classroom and the behaviors they observed in their classrooms. The answers given by the teachers about the behaviors they categorized as undesirable behaviors in the classroom environment are presented in the visual below.

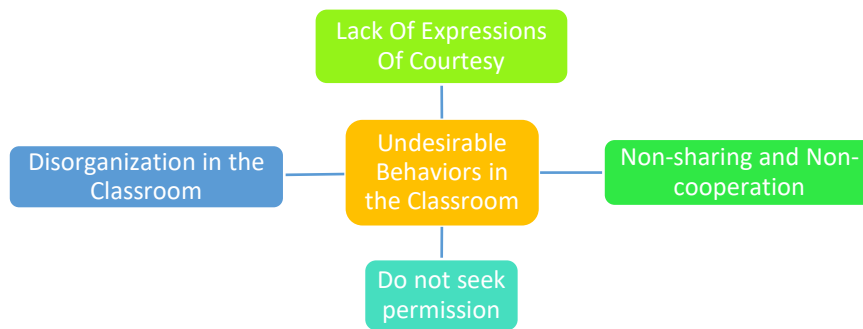


Figure 1 Undesirable behaviors observed by teachers in classroom environment.

As can be seen in Figure 1, the undesirable behaviors observed by the teachers who participated in the interview process in their classrooms were defined as not sharing, not helping, not asking permission, being disorganized in the classroom environment and in using their belongings, and using courtesy expressions and behaviors less than they should be.

3.3 Practices for eliminating undesirable behaviors and providing classroom management

Participants were asked whether they used practices to eliminate these behaviors and ensure classroom management. Teachers stated that they tried traditional methods. Regarding this issue, T1 said:

“I have a crowded class. The time to deal with each student one-on-one is limited. When I encounter these behaviors, I practice ignoring, warning, explaining the correct behavior, giving a break, making them think, meeting with their parents, and rewarding children who exhibit correct behaviors. However, I have not yet achieved the desired result”.

T2 said, *“I try to get rid of energy by giving various tasks in the classroom. I constantly explain the correct behavior. I give warnings when they misbehave. I try to encourage positive behaviors. I communicate with the family”.*

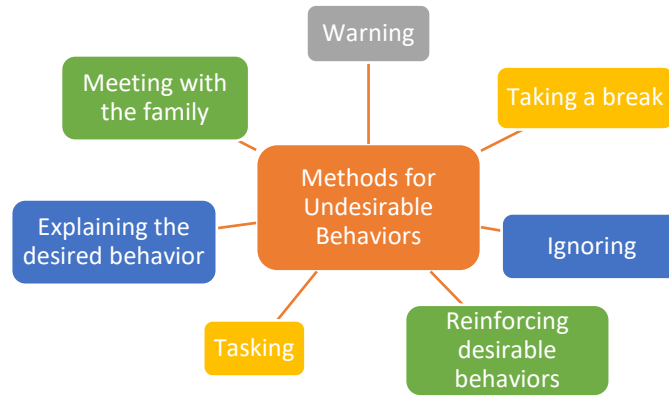


Figure 2 Teachers’ methods for undesirable behaviors in the classroom environment.

As can be seen in the figure, the methods frequently used by teachers are meeting with parents, warning, giving time-out, explaining the correct behavior, ignoring, assigning tasks, and reinforcing students who behave correctly.

3.4 Alternative suggestions for classroom management

Participant were asked what can be done other than traditional practices (punishment, ignoring, warning, meeting with parents, time-out, making them think) when there is a problem in classroom management. About that, T1 said:

“If there is support for the environment and materials, I think that giving behavior training to children through drama and play can attract children's attention. In this way, children can easily internalize the right behaviors through practice. In addition, it is very difficult to attract the interest of today's children with traditional methods. I think the use of methods that can provide their intrinsic motivation should be increased in the education and training process. Children are now interested in more active, colorful, and interactive methods.”

Also, T2 said:

“More story and game activities can be done. Standard applications are no longer interesting enough for children. Applications and methods that they can participate more willingly can be developed. In the education process, we may resort to traditional methods without realizing it, but we have difficulty in achieving the desired result here. Support can be obtained from the school guidance service. I think so because the school guidance service provides one-to-one education. Because I think that one-to-one education for behavior change is important in this process.”



Figure 3 Teachers’ alternative suggestions for behavior management

A visual of the teachers' suggestions is presented in Figure 3. Teachers' suggestions were gathered under the titles of drama and games, interesting activities, giving more space to story activities, and giving children an active role and cooperating with the guidance service.

While T1 stated that she had 3 students who rejected the rules and showed undesirable behaviors in the classroom, T2 stated that she had 7 students. It was explained that the sessions would be held in a different classroom before class hours.

The children who would participate in the training program were met, and they were informed about the process. The researcher explained to the children that there were rules that they should pay attention to during the training and that more efficient training would be provided if they followed the rules. Throughout the training process, the researcher gave verbal instructions to support the children's speaking, listening, speaking, asking for permission, and courtesy skills. The children displayed excited and curious behaviors when they attended the first session. 8 out of 10 students tried to speak without raising their fingers when asked a question. It was observed that they listened to what the researcher was saying, but they were involved in the conversation when each other was talking and did not wait for their turn. Speaking without permission behavior was observed throughout the children. In the first session, the children chatted and played the acquaintance game. It was observed that the children enjoyed playing the acquaintance game in this first session.

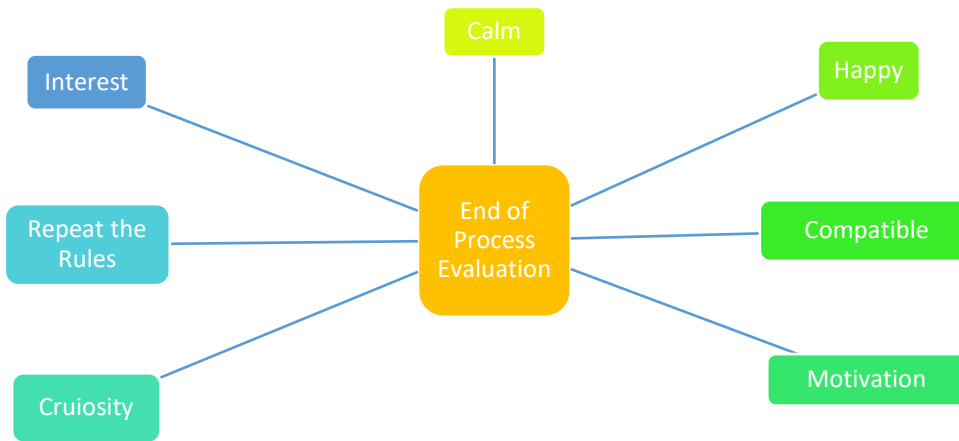


Figure 4 Observation results of the children at the end of the process

The children started the education process in their regular classrooms at the end of the first session. T2 reported her observations for her 7 students who participated in the training as follows: *“When the children came to the classroom, they greeted me and their friends and told me what they did in the training with great excitement. They seemed to have a pleasant time”*. T1, on the other hand, stated that when the children came to the classroom, two of the three students told what they were playing, while the other did not explain. T1 also stated that the child who did not explain the subject had a crying behavior when coming to school since the beginning of the year. In addition, T1 stated that *“The children seemed to enjoy being in a separate classroom and doing activities”*.

During the conversation with these students in the second session, the information that they would use the smart board for the first time was obtained from the children. Children were asked about the technological devices they use at home, and it was learned that they all had tablets at home. 7 out of 10 children also said they bought their parents' phones. In the second session, children were informed about the use of smart boards, the things to be careful about when using technology, and cyber security issues. Entertainment content was also presented. The educator observed that the children enjoyed participating in this training. Children were asked what

technological tools could be used for them. The children's answers were collected by playing games, watching videos, and listening to music. It was observed that only 2 children explained that technology could be used to obtain new information.

The researcher observed increased children's speaking and turn-taking behaviors in the other four sessions. It was observed that when they came to the application area, they greeted the teacher and waited with excitement and attention to play the game.

During the interviews with their teachers, it was obtained that the children participated in the educational process with excitement and enthusiasm and wanted to apply what they learned as soon as they came to the classroom. Regarding this issue, T2 said:

“When the children participating in the education process come to class, they tell what they have learned and want to apply it immediately. Today, you talked about organizing the classroom and keeping your belongings in order, and you did a puzzle. He stated his observations by saying, ‘When the children came to the classroom, they asked if there was a place to organize the classroom’.”

T1 explained that one of the children showed crying behavior, especially when encountering a different situation, but he did not see this crying behavior during the education process. He explained his observations that she came to school without crying and was more motivated because she would play a technological game before class time.

The researcher-educator observed that in the last two sessions, the children were calmer while waiting their turn for the game, that while one of them was doing the practice, the others were waiting for him, and that they were waiting for the practice to be done with interest and curiosity.

Participating teachers were asked to generally evaluate the educational process and students' behavior in the classroom at the end of the training program. T1 said:

“The children were generally happy to learn something in a different environment. They participated in the training willingly and willingly. The fact that the contents were prepared with technology and interactively attracted the children's attention even more. I observed that they were motivated and calm, especially since they came to the class after the training. A child still comes to school crying, and participating in the education process has enabled him to come to school more motivated and enter the classroom without crying. “I would like to thank you in this regard as well”.

T2 expressed his opinions about this process as follows:

“The children seemed happy to use technology. I cannot always find the environment and time to pay one-on-one attention to each child in the classroom. Thanks to this training, one-on-one training and activities were held with the children. I observed that the children participating in this education process entered the classroom more calmly. Especially on educational days, children were calmer when entering the classroom. I think the process may take longer for these positive behaviors to be permanent. This training may consist of more sessions. “Perhaps, as preschool teachers, we can include more technology in our classrooms and prepare content that will attract children's attention.”

4 Discussion

The study findings showed that one student's behavior is one of the main factors that make classroom management difficult. Temiz (2020) found that the most common undesirable behaviors that preschool teachers encountered in their classrooms were sharing trouble, jealousy, irritability, hitting their friends, tantrums, swearing, stubbornness, taking someone else's belongings without permission, crying, children's difficulty in keeping up with the rule-bound

environment. Also, students had anxiety, fear of school, lack of self-confidence, nail-biting, introversion, timidity, attention, and concentration problems. Further, Akyol et al. (2011) identified these undesired behaviors under these categories: aggression, violence, communication problems, difficulty in adapting to friends and the environment, lying, and toilet problems. According to Yavaş and Balcı (2018), the most common behaviors based on teachers' opinions about undesirable behaviors in the classroom were arguments, fights, and violence.

Teachers claimed that not sharing, not helping each other, not asking for permission, being disorderly in the classroom environment, using their belongings, and using polite expressions and behaviors less than they should also be children's undesirable behaviors in the classroom. When the teachers' opinions were analyzed in Akyol et al. (2011) study, it was concluded that there was no common definition of behavioral problems for teachers and that teachers reached a definition by interpreting the problems they experienced according to the child. In this study, the behaviors observed by two participating teachers in their classrooms, which they described as undesirable behaviors in the classroom, were determined, and the training for these behaviors was prioritized.

In this research, teachers stated that they preferred traditional methods to control children's undesirable behaviors in the classroom. Punishment, ignoring, warning, meeting with the family, time-out, and making people think are the methods most frequently used in the classrooms of the two teachers who participated in this study. Al and Sak (2023) examined teachers' methods when encountering undesirable classroom behavior. Most teachers stated that they did not offend the child who showed undesirable behavior in front of his friends and that they called him personally and explained that the behavior was wrong. In addition, findings were obtained that teachers tried to draw children's attention in different directions, talked about problems as a class, got angry with children, warned them, and even contacted the guidance service.

Further, the teachers' suggestions were examined under the headings of focusing on drama, increasing story and game activities, offering more active, colorful, and lively activities that can relieve children's energy and attract their attention, and cooperating with the guidance service. In a study conducted by Medikoğlu and Dalaman (2018), teachers' solution suggestions for undesirable student behaviors were examined, and it was found that they preferred methods such as meeting with the family, making home visits, doing group work, playing games, explaining that the behavior was wrong, warning, and ignoring. has been made. No one-to-one studies have been found that offer alternative suggestions other than these practices.

Another issue examined in this research is the effect of technology on behavior management. In their study, Gökyer and Doğan (2016) examined the opinions of administrators and teachers regarding children's undesirable behaviors. The opinions were examined, and it was found that the cause of undesirable behaviors was attributed to reasons such as family factors, environment and environment, media, and internet use. It is known that technology creates negative behaviors in children, especially when it is not used correctly.

Regarding this, Yumuşak and Balcı (2018) examined teachers' opinions about the causes of undesirable behaviors. They found that the primary reason stemming from the student was the excessive use of media tools. Epstein (2015) mentions that media culture affects children's behavior and how they treat each other in one of his studies. When he examined the literature on technology use in children, he stated that most studies documented the negative effects of technology, but a few studies documented its positive effects. It has also been argued that technology supports early learning and development if designed and implemented appropriately

over the age of two. The study conducted supports this research. He also mentions that the safe and balanced use of technology should be modeled and that children should be given the same attention to technology that they give to other classroom areas.

Observations have shown that using technology in education is interesting and motivating for children. The fact that the contents were prepared with technology made repeating and remembering the previous session in each session easier. Likewise, Young (2008) examined the effects of technology use in the classroom on student grades, motivation, attitudes, and attendance. As a result of his research, he concluded that the use of technology is a motivating factor for students. This study is like Young's study in this respect.

4.1 Limitations and future directions

While conducting this research, the literature was scanned, and various studies were found regarding undesirable behaviors in the preschool period. However, it was seen that most studies were on teachers' opinions. No similar study has been found on behavior management with technological content in the preschool period. This study was conducted with preschool teachers and students. Teachers are one of the main sources for collecting information about children during this period. Another source of information is family. Studies can also be carried out with the family by including the family in the process.

During the study, teachers' ages, professional seniority, number of students in the classroom, physical equipment of schools, and access to technology variables were also examined.

This study is limited to two preschool teachers and 10 students in a school in Serik district of Antalya province. The study can be carried out with a larger population.

Educational contents can be multiplied so teachers can apply them in their classes, and this study can be observed and examined.

This study covers observations during a 3-week training period. It is thought that observing children in the future by extending the study interval and observation time will contribute to the field.

4.2 Conclusion

Considering the study's findings, it was examined whether children's behavior was affected by the correct use of technology, and the observations of the participants and the researcher were included. Teachers do not want to encounter a situation that would disrupt education in the classroom. However, it has been reported that they encounter these situations occasionally and use various practices in such situations. When the relevant literature is scanned, similar situations emerge. Teachers are trying various methods to eliminate these behaviors. However, it is noteworthy that these practices are mostly traditional methods. Although teachers have alternative suggestions to eliminate undesirable behaviors, they do not seem to have the physical facilities to apply these methods. In addition, crowded class sizes also affect this situation. The fact that the preschool period is a critical period and that the foundation of children's behavior in adulthood is laid in this period draws attention to the importance of behavioral education during this period.

The duration, method, and frequency of behavioral training during this period may also impact behavior. It is known that especially in our age, children are introduced to technology in their

homes at a very early age. When using technology, it can be said that technology is beneficial if the right content is given at the right time and frequency. Since children have difficulty self-control during this period, families and teachers have a lot of responsibility. The content that children watch should be controlled, and children should not be allowed to watch content that contains behavior that will set a negative example. Providing the right technological content for children is also important in being a role model for children. Using technology as an educational material will attract children's attention and achieve a more active learning and teaching process. Because technology is important in education as it provides children with richer, more interactive, and one-to-one education opportunities.

Undesirable behavior in the classroom may be due to various reasons. Excessive and unconscious use of technology is also the reason for this situation. Using technology at the right time and in the right way will reduce the occurrence of behavioral problems. Using technology for the right content will ensure that children are supported in many areas during education. It is known that children are more active and motivated to learn with technology. Considering that motivation is a prerequisite for learning, incorporating technology into the education process will support learning.

5 Statement of Researchers

In this section, you are expected to declare the information regarding the titles given below.

5.1 Researchers contribution rate statement:

Each researcher invested equal dedication and effort in this study, with collaborative decision-making at every investigation stage.

5.2 Conflict statement

The authors affirm the absence of conflicts of interest. Furthermore, they have transferred the publication rights of this article to the Pedagogical Perspective Journal.

5.3 Support and thanks

No support was received.

References

- Açıkgöz, K.Ü. (2003). Etkili öğrenme ve öğretme. Eğitim Dünyası Yayınları.
- Akar, H., Tantekin Erden, F., Tor, D. & Şahin, İ.T. (2010). Study on teachers' classroom management approaches and experiences. *Elementary Education Online*, 9(2), 792-806. <http://ilkogretim-online.org.tr>
- Aksoy, T. (2021). Teachers' views on the use of technology in the education of preschool children. *Journal of Primary Education*, (11), 30-38. <https://doi.org/10.52105/temelegitim.11.3>
- Akyol, T., Baydemir, G., Akman, B., Kükürtçü, S. K., & Arslan, A. Ç. (2011). The opinions of preschool teachers about problem behaviours which faced in classroom. *e-Journal of New World Sciences Academy*, 6(2), 1715-1731. <https://dergipark.org.tr/en/download/article-file/185588>
- Al, S., & Sak, Ş. (2023, April 2-4) Misbehaviors in the preschool period. Paper presented at the Cukurova 10th International Scientific Researches Conference.
- Alexander, K. L., Entwisle, D. R., & Horsey, C. S. (1997). From first grade forward: Early foundations of high school dropout. *Sociology of Education*, 70(2), 87-107. <http://dx.doi.org/10.2307/2673158>
- Ataman, A. (2003). Behavior problems in classroom interaction. *The Journal of Turkish Educational Sciences*, 1(3), 251-263.
- Bademci, V. (2019, 10 Ekim). Tarih eğitiminde ölçme: Geçerlik hakkında doğrular ve yanlışlar. Paper presented at the 6th International Symposium on History Education.

- Bennett, J., & Hay, D. (2007). Information technology and behavior management in early childhood education. *Early Education Journal*, 35(4), 305-313.
- Blackwell, C. K., Lauricella, A. R., & Wartella, E. (2013). Factors influencing digital technology use in early childhood education. *Computers & Education*, 62, 90-101. <https://doi.org/10.1016/j.compedu.2014.04.013>
- Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual Review of Psychology*, 53(1), 371-399. <https://doi.org/10.1146/annurev.psych.53.100901.135233>
- Çakır, N. (2010). The relationship between pre-school teachers' understandings of discipline and internal-external control focuses [Unpublished Master's Thesis]. Canakkale Onsekiz Mart University.
- Ekici, F. Y., Günhan, G., & Anılan, Ş. (2016). Preschool teachers' classroom management skills. *Journal of The International Scientific Researches (IBAD)*, 2(1), 48-58.
- Epstein, A. S. (2015). Using technology appropriately in the preschool classroom. *Exchange Focus*, 28(1), 1-19. <https://ccie-catalog.s3.amazonaws.com/library/5088801.pdf>
- Gangal, M., & Öztürk, Y. (2019). Undesired behaviours in preschool classrooms and the ways for coping with these behaviours. *Journal of Qualitative Research in Education*, 7(3), 1100-1118. <https://doi.org/10.14689/issn.2148-624.1.7c.3s.9m>
- Gardner, F. & Shaw, D. S. (2008). Behavioral problems of infancy and preschool children (0-5). *Rutter's child and adolescent psychiatry*, 882-893.
- Gökkyer, N., & Doğan, B. (2016). Administrators' and teachers' views on causes of student misbehaviours. *Firat University Journal of Social Science*, 26(1), 93-105. <https://doi.org/10.18069/fusbed.82121>
- Güder, S. Y., Alabay, E., & Güner, E. (2018). Behavioral problems preschool teachers experience in their classrooms and the strategies they employ for these behaviors. *Elementary Education Online*, 17(1), 414-430. <https://doi.org/10.17051/ilkonline.2018.413792>
- Güven, E. D., & Cevher, N. (2005). The level of preschool teachers' classroom management skills and its relations with different variables. *Pamukkale University Journal of Education Faculty*, 18(18), 71-92. <https://rb.gy/irxxxw>
- Higgins, S., Xiao, Z., & Katsipataki, M. (2012). The impact of digital technology on learning: A summary for the education endowment foundation. Education Endowment Foundation. <https://files.eric.ed.gov/fulltext/ED612174.pdf>
- Hobbs, T., & Westling, D. L. (2010). Teacher perceptions of classroom behavior problems: A factor analytic study across grade levels. *Journal of Emotional and Behavioral Disorders*, 18(4), 247-259.
- Kalkan, A. (2021). Technology Addiction and Conscious Media Use. *International Journal of Humanities and Art*, 2(1), 123-130.
- Köklü, N. (2019). Eylem araştırması. *Ankara University Journal of Faculty of Educational Sciences (JFES)*, 26(2), 357-365. https://doi.org/10.1501/Egifak_0000000478
- Kuzgun, H., & Özdiñç, F. (2017). Investigating teacher's views for technology use in preschool education. *Uşak University Journal of Social Science*, 10(Special Issue), 83-102(2).
- Ladd, G. W., Birch, S. H., & Buhs, E. S. (1999). Children's social and scholastic lives in kindergarten: Related spheres of influence? *Child Development*, 70(6), 1373-1400. <https://doi.org/10.1111/1467-8624.00101>
- Medikođlu, O., & Dalaman, O. (2018). Unsolicited student behaviors relating to teachers' dereference and determination of teacher opinions related to solution strategies for such behavior. *Journal of Educational Theory and Practical Research*, 4(3), 20-32. <https://doi.org/10.1177/00169862231183652>
- Merriam, S. B. (2013). Nitel araştırma: Desen ve uygulama için bir rehber (Çev. Editörü: Selahattin Turan). Nobel Akademik Yayıncılık.
- Mustafaođlu, R., Zirek, E., Yasacı, Z., & Özdiñçler, A. R. (2018). The negative effects of digital technology usage on children's development and health. *Addicta: The Turkish Journal on Addictions*, 5(2), 1-21. <http://dx.doi.org/10.15805/addicta.2018.5.2.0051>
- Patton, M. Q. (2014). Nitel araştırma ve değerlendirme yöntemleri. M. Bütün ve S. B. Demir (Çev. Ed.). Pegem Akademi.
- Pianta, R. C., La Paro, K. M., & Hamre, B. K. (2007). Classroom assessment scoring system manual: Pre-K. Paul H. Brookes Publishing.
- Roberts, R. E. (2020). Qualitative interview questions: guidance for novice researchers. *The Qualitative Report*, 25(9), 3185-3203. <https://doi.org/10.46743/2160-3715/2020.4640>
- Rosen, L. D., Lim, A., Felt, J., Carrier, L. M., Cheever, N. A., Lara-Ruiz, J., & Rökkum, J. (2014). Media and technology use predicts ill-being among children, preteens and teenagers independent of the negative health impacts of exercise and eating habits. *Computers in Human Behavior*, 35, 364-375. <https://doi.org/10.1016/j.chb.2014.01.036>
- Sanford, J.P. & Emmer, E.T. (1987), *Understanding classroom management: An observation guide*, Allyn and Bacon.
- Sayan, H. (2016). Using technology in preschool education. *Education and Society in the 21st Century*, 5(13).

- Sheridan, S. M., Edwards, C. P., Marvin, C. A., & Knoche, L. L. (2009). Professional development in early childhood programs: Process issues and research needs. *Early education and development*, 20(3), 377-401. <https://doi.org/10.1080/10409280802582795>
- Sprick, R. (2006). *Discipline in the secondary classroom: A positive approach to behavior management* (2nd ed.). John Wiley & Sons.
- Taylor, D. L., Yeung, M., & Basset, A. Z. (2021). Personalized and adaptive learning. *Innovative learning environments in STEM higher education: Opportunities, Challenges, and Looking Forward*, 17-34. https://doi.org/10.1007/978-3-030-58948-6_2
- Temiz, S. (2020). Student behavior problems that pre-school teachers meet in classes and their managing strategies. *International Journal of Leadership Education (ULED)*, 1-1.
- Walker, H. M., Horner, R. H., Sugai, G., Bullis, M., Sprague, J. R., Bricker, D., & Kaufman, M. J. (1996). Integrated approaches to preventing antisocial behavior patterns among school-age children and youth. *Journal of Emotional and Behavioral Disorders*, 4(4), 194-209. <https://doi.org/10.1177/106342669600400401>
- Wentzel, K. R. (2009). Peer relationships, motivation, and academic performance at school. *Handbook of motivation at school*, 279-296.
- Yıldırım, A. & Şimşek, H. (2008, 2013). *Sosyal bilimlerde nitel araştırma yöntemleri* (9. Genişletilmiş Baskı). Seçkin Yayıncılık.
- Young, R. (2008). *Using technology tools in the public school classroom* (5th Ed.). American Psychological Association.
- Yumuşak, G., & Balcı, Ö. (2018). Teachers' coping methods for dealing with students' misbehaviours and their opinions about effectiveness of these methods. *Balıkesir University The Journal of Social Sciences Institute*, 21(40), 223-254. <https://doi.org/10.31795/baunsobed.489128>