



Preschool Teachers' and Children's Views and Experiences Regarding The PLE Self-Regulation Program: A Case Study

Okul Öncesi Öğretmenlerinin ve Çocukların OÖE Öz-Düzenleme Programına İlişkin Görüşleri ve Deneyimleri: Bir Durum Çalışması

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Abstract

This article presents the findings of a qualitative case study on the views and experiences of teachers and children who participated in the play-based "Play, Learn, Enjoy Self-Regulation Program" (PLE), which focuses on developing children's self-regulation skills. The participants are five volunteer public preschool teachers and five children representing the classrooms where the program was implemented. Data sources included semi-structured interview forms prepared for teachers and children, observation forms, and documents obtained from children's activities. The content analysis technique was used, and codes and themes were generated for data analysis. Teachers who participated in the PLE program believed the program was applicable, improved children's self-regulation skills, and contributed to their professional development. Children, however, stated that while they struggled with some of the program's activities, they enjoyed participating and remembered the games and stories better. The results were discussed in relation to the literature.

Keywords: Teacher training, preschool children, Play Learn Enjoy Self-Regulation Program.

Öz

Bu makale, çocukların öz-düzenleme becerilerini geliştirmeye odaklanan oyun temelli "Oyna, Öğren, Eğlen Öz-Düzenleme Programı"na (PLE) katılan öğretmen ve çocukların görüş ve deneyimlerine ilişkin nitel bir durum çalışmasının bulgularını sunmaktadır. Katılımcılar, kamudan 5 gönüllü okul öncesi öğretmeni ve programın uygulandığı sınıfları temsil eden 5 çocuktan oluşmaktadır. Veri kaynakları öğretmenler ve çocuklar için hazırlanmış yarı yapılandırılmış görüşme formları, gözlem formları, çocukların etkinliklerinden elde edilen dokümanlardır. Veriler içerik analizi tekniğiyle analiz edilmiş, kod ve temalar oluşturulmuştur. PLE programının eğitimine katılan öğretmenler programın uygulanabilir olduğunu, çocukların öz-düzenleme becerilerini geliştirdiğini, mesleki gelişimlerine katkıları olduğunu düşünmekteydiler. Çocuklar ise programın bazı etkinliklerinde zorlandıklarını ama etkinliklere katılmaktan zevk aldıklarını ve etkinliklerdeki oyunları, hikâyeleri daha çok hatırladıklarını ifade etmişlerdir. Bulgular alan yazın çerçevesinde tartışılmıştır.

Anahtar Kelimeler: Öğretmen eğitimi, okul öncesi çocuğu, Oyna Öğren Eğlen Öz-Düzenleme Programı.

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1. Introduction

Self-regulation involves the processes of developing positive relationships, productivity, and maintaining emotional, motivational, and cognitive arousal levels that contribute to success and positive adjustment. At the beginning of the 21st century, approximately half of preschool teachers surveyed reported that 50% or more of the children in their

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Received Date: July 28th, 2025. Acceptance Date: November 26th, 2025.

classrooms experienced challenges that significantly limited their ability to benefit from early learning (Rimm-Kaufman et al., 2000). Although some teachers identified the primary source of children's difficulties in acquiring academic skills, such as not knowing their letters and numbers at the start of school, most teachers attributed self-regulatory problems, particularly the inability to follow directions and control attention, to the primary cause of children's lack of school readiness (Lewit & Baker, 1995). The proportion of time teachers spent on classroom activities and the proportion of time children engaged in math and literacy have also been found to be associated with children's cognitive self-regulatory achievement (Fuhs et al., 2013).

There are significant differences in self-regulation among children when they begin formal education (Calkins et al., 2004). A study in Türkiye, which collected teachers' opinions about the school readiness of 60-66-month-old children who had just started primary school, found that the children had difficulty mentally following instructions. Furthermore, these children were observed to have difficulties expressing themselves and their thoughts, as well as communicating with their peers (Kahramanoğlu et al., 2015).

Given that children entering formal education without adequate regulatory skills are at greater risk for poor academic achievement (Blair & Razza, 2007), it is important to support the development of self-regulation in early childhood. Preschool children, particularly those from low-income families, have been shown to exhibit lower behavioural regulation and inhibitory control compared to their more economically advantaged peers (Moilanen et al., 2010; Sektnan et al., 2010). Children's progress in self-regulation lays the groundwork for improvement in their academic skills, which in turn contributes to their overall academic development (Blair & Raver, 2015). These studies' results highlight the potential for changes in classroom practices to support children's self-regulation skills and the potential for teachers to implement the instruction more sustainably. Therefore, it is crucial that self-regulation skills be supported in preschool classrooms through teacher-implemented intervention programs, and that both teachers and children evaluate the effectiveness of these programs.

Studies have been conducted on intervention programs aimed at improving children's self-regulation skills through teacher training. Among the comprehensive preschool programs targeting skills beyond self-regulation, the Tools-of-Mind (ToM) program was implemented by teachers for children ($n = 715$) in their classrooms. In this study, children in the intervention group showed behavioural problems and aggression, and improved self-regulation, social-emotional competence, and positive teacher-child relationships compared to children in the control group (Blair et al., 2018). Another study using ToM included teachers and preschool children ($n=351$) from 18 schools. It was observed that the teachers who implemented ToM remained enthusiastic about teaching, and the children demonstrated better academic performance, less bullying and peer exclusion, and more kindness and helping behaviour. ToM has been highlighted as reducing the initial inequalities that separate children, schools, and teachers (Diamond et al., 2019). A study investigated the effectiveness of the Full-Day Early Learning Kindergarten (FDELK) program, which combines play-based learning and team teaching, in improving self-regulation, literacy, and numeracy outcomes in children ($n = 32,027$). The results found that compared to Half-Day Kindergarten or FDELK programs, there were essentially no benefits for children participating in the FDELK program (Youmans et al., 2018).

Teachers of 14 Head Start classrooms implemented an eight-week Red Light Purple Light (RLPL) self-regulation intervention for 276 children in their classrooms. Children in the experimental group demonstrated stronger self-regulation compared to those in the control group, and their math skills supported the effectiveness of the school readiness intervention (Schmitt et al., 2015). A comparison was made between groups receiving the RLPL+ intervention, in which teachers were trained to implement the self-regulation intervention in preschool classrooms with coaching support. No statistically significant differences were found in the self-regulation skills of children who received either version of the intervention (McClelland et al., 2019). A separate study was conducted to support the professional development, understanding, and skills of preschool teachers ($n=23$) in implementing the RLPL Program in their classrooms. Teachers stated that this training had positive contributions to their professional development and to their practices in improving the self-regulation skills of children in their classrooms (İvrendi et al., 2022). Twenty-seven teachers received and implemented the OpenMind (OM) program in their classrooms. Teachers perceived benefits for children in terms of improved self-regulation, increased body and emotional awareness, improved self-soothing, increased empathy, and awareness of others' emotions (Jackman et al., 2019).

As can be seen, various intervention programs are used in early childhood education in many countries to target children's self-regulation skills. While interventions designed to improve children's self-regulation skills may be effective, they may not show any improvement at all. It is essential to identify the reasons why interventions are effective, or if they are not, why they are not, with the teachers who implement them and the children involved in them, to improve the programs. A neglected aspect of the change process is examining the views and experiences of the most relevant participants, namely, teachers and children. Questions such as, 'What is it like to be in a school involved in such an experience? How are teachers and children evaluating this program? How does this affect teachers' teaching and children's learning experiences? How does this program contribute to the development of teachers and children? These questions are essential to determine how teachers and children experience such programs.

Based on the results of the aforementioned studies, the effectiveness of teacher training programs in supporting children's self-regulation skills at an early age is crucial. This study aims to examine the experiences of preschool teachers and children with the implementation of the PLE program in their classrooms. The following questions were asked:

1. What are the experiences and opinions of preschool teachers regarding the implementation of the "Play, Learn, Enjoy Self-Regulation Program"?
2. What are the experiences and opinions of children in classrooms where the "Play, Learn, Enjoy Self-Regulation Program" is implemented?

2. Method

2.1. Research Model

This study utilised the case study model. According to Creswell (2009), a case study is a qualitative research approach in which the researcher in-depth examines one or several situations within a specified timeframe using multiple data collection tools (observations, interviews, audiovisual recordings, documents, and reports) and identifies the situations and related themes. In this study, the researcher(s) in-depth examined the experiences of children and teachers regarding the PLE Self-Regulation Program using data collection tools such as observation, interviews, and documents.

2.2. Participants

This study employed purposive sampling, a non-random sampling method. This sampling method involves identifying and selecting knowledgeable and experienced individuals or groups on the topic of interest (Baştürk & Taştepe, 2019). The participants consisted of five volunteer teachers and five children, one from each classroom, representing all classrooms where the program was implemented. All participating teachers were female. One of the teachers was between 30 and 35 years old, and four were between 36 and 40 years old. All five teachers had a bachelor's degree in preschool education and worked with the 5-6-year-old age group. Three teachers had 5-10 years of teaching experience, and two had 11-15 years. Three of the participating children were girls, and two were boys. The children's mean age was 69.4 months.

Permissions were obtained from the XXX University [details removed for peer review] Education Research Ethics Committee (No: XXX) and the Provincial Directorate of National Education (No: XXX) for this research. Volunteer teachers and the children's families were asked to fill out consent forms.

2.3. Data Collection Tools

Personal Information Forms: Teacher identification questions include age, gender, seniority, graduation status, and the institution where they work. The children's identification form includes questions such as the children's birth date and gender.

Semi-Structured Interview with Preschool Teachers: The purpose of the interview is to gather teachers' views and experiences regarding PLE. Interview questions were asked after the PLE training to determine teachers' thoughts on the program, the difficulties they encountered in implementing it, the aspects they found useful, and the aspects that needed improvement. There were 10 main questions and 12 explanatory sub-questions. An example of a main question is: How do you envision implementing the self-regulation program? Examples of the exploratory questions are as follows: What did this program help you with? What skills do you think you improved in? Can you explain with an example?

Semi-Structured Interview with Preschoolers: The semi-structured interview form for children consisted of 7 main questions and 13 explanatory sub-questions. Photographs of games taken during the classroom teacher's program implementation were shown to the children to determine their thoughts and feelings about the program. An example of a main question is: How did you feel during games like "Yes-No" and "Applause"? An example of an exploratory question is: What were you doing in these games? Do you remember the rules? Do you think these games were difficult or easy? (attention and impulse control)

Semi-Structured Observation Form: The teachers' classroom activities during the PLE program were recorded with a video camera. The purpose of the video recordings was to determine the teachers' competence in implementing the program. The researcher created an "Implementer Evaluation Observation Form" for analysing the video recordings. The items included in this form are as follows: the observed classroom, the teacher, the observer's name, the

preparations required before implementation, the implementation process, and the instructions for activities and skills in the 1st, 5th, and 15th sessions. The researcher and the co-observer recorded this information after watching the video recordings. They coded it as "teacher performed," "teacher did not perform," and the explanations on the observation form.

Documents: These were the activity sheets performed by the children in the PLE activities.

2.4. Data Collection

The researcher conducted interviews. The researcher conducted one-on-one interviews with teachers and children. The interviews were recorded with a voice recorder. The teacher interviews lasted approximately 40 minutes, and the child interviews lasted approximately 12 minutes. The researcher recorded the beginning (1st), middle (5th), and final (15th) sessions of the teachers' implementation of the program, documenting them on observation forms. To increase the reliability of the observations, three implementation sessions were also recorded on the forms by a co-reader, and reliability calculations were conducted.

2.5. Data Analysis

The content analysis technique was used. Content analysis is the separation, counting, and interpretation of recurring themes, problems, and concepts within the data (Denzin & Lincoln, 1998). By reading the interview and observation data, sections that formed a meaningful whole were named, and categories were created from these recurring codes (Yıldırım & Şimşek, 2013). Data obtained from individual interviews with teachers and children were analysed and transferred to MS Word. To ensure reliability, all names and identifying information were masked, and participants were assigned codes as T1, T2, etc. for teachers and C1, C2, etc. for children. Then, to conduct an exploratory analysis of the qualitative data (Creswell & Plano-Clark, 2018), all participants' statements were read and coded. These codes were combined to obtain categories, and from these categories, themes were derived. Open codes for the program were combined, and recurring codes were narrowed down by converting them into categories and themes.

2.6. Play, Learn, Enjoy Self-Regulation Training Program

The Play, Learn, Enjoy (PLE) Self-Regulation Training Program was developed by Elena A. Savina, Lindsay M. Anmuth, Kelly C. Atwood, Whitney R. Giesing, and Virginia G. Larsen (2018) to improve children's self-regulation skills. The first part of the program consisted of "Definition, Importance of Self-Regulation - Strategic Self-Regulation Skills - Program Overview". The second part consisted of 15 play-based sessions, designed for children.

The PLE Program was translated into Turkish, and for its English Turkish language validity, the opinions of four faculty members, field experts, and one teacher were consulted. The PLE program for which preparations were completed was implemented as pilot training for two teachers in five face-to-face sessions. Following the training, the teachers implemented the program in their classrooms. Following the completion of the adaptation studies, five volunteer teachers received training in five face-to-face sessions on the definition and importance of self-regulation, the program overview, and implementation of the program activities. For example, Get to Know Each Other, River Boat Trip, Rainforest Trip, Fishing Trip.

2.7. The Role of the Researcher

In this study, the researcher adopted a non-participant observer role. In non-participant observation, the observer remains outside the group. The observer is objective because they do not share the observed event, and the participants are unaware that they are being observed (Karasar, 2014). The researcher observed the teachers' practices every Friday for six weeks and video-recorded them.

2.8. Credibility

One of the most well-known strategies for increasing the internal validity of the study is triangulation (Creswell & Plano-Clark, 2014). This study employed triangulation through multiple data sources (Merriam, 2013). In this study, multiple data collection methods were employed, including interviews, observations, video recordings, and documents.

The researcher and a peer reader watched videos of the first, fifth, and fifteenth sessions of five teachers at different times and coded the interviews with the teachers and children. The coding evaluations made by two different observers were calculated using Kendall's τ_b coefficient of concordance (Kendall & Smith, 1939). It was found that there was

no statistically significant difference between the Kendall's W observation and coder opinions (Kendall's $W = 0.072$; $p > .05$). There was no statistically significant difference between Kendall's W coder opinions regarding the coding of the interviews (Kendall's $W = 0.950$, $p > .05$). Based on the observations made from the video recordings and the Kendall's W results, it was observed that the teachers fulfilled the program requirements during the implementation process and exhibited similar practices.

3. Findings

3.1. Findings of teacher interviews

Teacher interviews were analysed to determine teachers' views on PLE. Four themes were obtained: 1. Program content, 2. Implementation, 3. Effects on children's development, and 4. Impact on professional development. The program content encompasses codes for a diverse range of activities, strengths, and weaknesses. The application theme consists of codes for challenges and successes. The effects on children's development theme consists of codes for cognitive, language, and social-emotional development.

1. Findings Regarding the Program's Content. In interviews with teachers regarding the program's content, they stated that the program consisted of various play-based activities, was compatible with the preschool program they had implemented, and that teacher-guided explanations were effective in helping them understand the program. However, they noted that the lack of stories and visual materials for some activities was a weakness of the program. They viewed the program's positive aspects as play-based, interconnected, and progressing from simple to challenging, allowing children to understand it more easily and holistically. For instance, T1 stated:

The activities in this program take children on adventures. These adventures provide many experiences through pretend play. They are all interconnected. For example, children are required to fish. They do an activity on what to bring when fishing. Then, they go on a boat trip on the river. While on the boat, a hole appears, and the children are asked to work together to fix it. Then, they return safely to the forest, play an animal-finding game accompanied by music, and engage in relaxation activities. It is very well-structured. Finally, the children are encouraged to self-assess their work. I saw they could. I think we should give them opportunities (T1).

The program includes a wide variety of activities, such as rhythm and games. It began simply and gradually became more challenging. For example, we first introduce triple rhythms. Then, we introduce quadruple rhythms. Then we reverse the rhythms. The children first learn the correct rhythms, and then they start to enjoy the reverse (T5).

These findings suggest that integrating diverse activities into the program content and engaging in playful activities support children's development. T2 and T3's opinions about the program are as follows:

After explaining, 'We are going to do this here, you need to pay attention to this and that,' I asked the children for feedback. This was important in this program. Usually, I now tell the children quickly about my activities. Then I asked, 'Tell me what you were going to do.' I did not use it as much, but after self-monitoring, I realized it was much more critical. Getting feedback from the children on how much they recall and how much they repeat back to me what I said was important (T2).

The most important thing was that it was child-centered. They learned to make joint decisions, to act together, and to respect each other's opinions. They listened to each other's comments and reached a consensus. Before, they were individualists, but now they have learned to be "us," which is a very good development (T3).

Teachers believe that the PLE Program can be implemented within the MoNE Pre-School Education Program (MONE-PEP). Teachers considered the PLE's activities compatible with the MoNE-PEP they implement, as evident in their comments below.

I aim to improve their memory with some of our games. In Turkish activities, I read the story and then ask, 'What's on your mind?' When we're exhausted, we lie down, close our eyes to the music, and try to focus on the moment and relax, just like in this program (T2).

We play some of these games in our program, but the difference between these games and this program is that we play them in a surprising way (T3).

We love it (rhythm). The children enjoyed it. We were very comfortable in the rhythm area; they loved doing it (T4).

Children's self-regulation skills need to be developed. Children today are especially impatient and want things to be achieved right away; this game builds on their strengths by addressing their needs (T5).

The teachers appeared to benefit from the PLE program's instructions and explanations. T4 stated;

We asked riddles. The children had to know which one I was asking by looking at the page I provided. The program included explanatory phrases (for teachers) like, 'Wait, stop, continue when you get these answers or comments from the children.' This made the program clearer in my mind (T4).

In the PLE Program, children are asked to listen to carefully narrated, non-visual stories to develop their verbal auditory memory, store information in their working memory, and report back what they remember. However, teachers considered the lack of photos in the short stories to be a weakness of the program, as seen below:

The children in my class are very accustomed to picture books and puppets. Even though I adjusted my tone of voice, I couldn't pick up the information at first when I just read it. Later, they remembered the events in the story more, but it took a while (T3).

In the rowing game, I couldn't play with the children without visuals. We immediately made a rowing boat with blocks and pulled it together (T1).

Related videos or photographs could have been better... Because the child needs to be supported with visual materials. For example, we went rafting. If the child had seen images of rafting, the child could have played with it more knowing what they were doing and could have imagined it better (T5).

When I read a storybook, I have something in my hand (a book or pictures) that helps them focus. Now that we have switched to just verbal communication, it is easier for a child, whose attention span is already short, to get distracted (T2).

2. Implementation Findings. In the interviews, two categories emerged: situations in which teachers encountered difficulties while implementing the PLE and situations in which they perceived themselves as competent. Teachers expressed difficulty managing some children's misbehaviours while implementing the PLE. For example, *"He/She distracts his/her friend"* (T3). *"Some children do things that distract their friends"* (T5). *"There are a few children in my class. They fidget a lot and cannot sit still... They cannot pay attention to me; they are focused on what is around"* (T1). The teachers' comments suggest that some children need further development in their attention-focusing and impulse-control skills. These adverse situations make it difficult for teachers to implement the program. Furthermore, teachers' difficulties included time constraints and crowded classrooms.

Because my class was so crowded, I divided it into two. I implemented the same program twice, but at different times, and I wished I had more time (T2).

From time to time, I wish we had more time...I also wish our classes had no more than 15 students. With 24-25 children, especially attention training is very difficult (T4).

There are always children in the classroom who can't participate in activities. We try to get their attention, make eye contact, and get them involved (T5).

It's challenging to remind children who are distracted and get them back on track. Because I don't like to remind too many times during an activity, it was challenging to get those who were a little distracted back on track... (T2).

We're trying to teach the children to wait their turn as a form of self-regulation, but they're excited. So, waiting in line has been a challenge... (T1).

It is seen that the longer duration of activities due to crowded classes and the resulting difficulties in classroom management have caused teachers to struggle to implement them.

Teachers stated that they had no difficulty in getting prepared and implementing the PLE. For example, T4 said, *"I was very nervous in the first two sessions. I had my session papers with me. Then, once I understood the logic of the program and saw what I could do, the others flowed like water."*

It was great that the program was game-based. We play a lot of games in our program anyway. Most of them (the PLE program's games) were similar, but I didn't play them with different rules, of course. The instructions were very clear. I didn't have any difficulty understanding and implementing them (T3).

I didn't have any difficulty because I prepared beforehand. The program was integrated with music, games, and literacy activities. That's why I implemented it very easily" (T5).

The above comments imply that the teachers considered themselves competent in understanding and implementing the program.

3. *Findings regarding the effects on children's development.* In the interview, teachers stated that the PLE Program reduced some undesirable behaviours in children and contributed to their cognitive, social, emotional, and language development. For example, T5 stated,

Some of the children were impatient. For example, if I ask a riddle, some children immediately respond with whatever comes to mind. Children often lack the patience to listen to one another. It may be because we're meeting with children who have been staying home since the pandemic began for the first time this year, but it took them a long time to follow the rules. After the program, unfortunately, I can't say all the children, but many of them started to listen more carefully and take more control of their actions (T5).

Two of the teachers explained that the activities encouraged children to think creatively and produce solutions to problems, as seen below:

The children rowed together on the river during the sailing activity. Then their boat got a hole and started taking on water. They considered how to overcome this. Some suggested fixing it. Some patched it up with blocks from the classroom. I did not interfere at all. I liked how they thought, talked, and found a way out together (T2).

We helped the children understand that they need to listen to these stories very carefully. When we asked them about the words used there, they liked them. They heard different things, too. I think that not using picture books will help develop children's creativity and imagination because they are encouraged to imagine things themselves, as there are no visuals (T4).

Another teacher explained that the activity with a girl hero (example: planning a discussion, a river boat trip, or being on the beach) helped manage emotions:

The girl hero is very anxious and timid. I have a girl like that in my class. When she encountered something negative, she would cry, complained about her friends. That girl's crying has decreased. She does not complain about her friends as much and is more harmonious (T1).

Taken together, the teachers' comments indicated that the PLE program's activities contributed to the children's development of problem-solving skills, creativity, and emotional management.

4. *Findings regarding teachers' professional development.* Based on the observations made in the teachers' classrooms while they were implementing the PLE Program and the interviews conducted after the program implementation, the improvements in their professional skills were categorised as: a) Planning the training program, b) Organising the educational environment, c) Managing the educational process, and d) Evaluation.

a) *Planning the training program:* Teachers who implemented the PLE Training Program in their classrooms were observed to be able to integrate it into the existing MoNE-PEP. For instance, T1 said to the children, "Now we are tapping our hands twice," and showed four fingers. She explained that children should follow the verbal instructions, not the numbers they showed with their fingers.

While implementing this program, some of the games we play (in the MoNE-PEP) could be transformed into attention and reversal games. For instance, I could reverse the game day and night. We could also play it backwards (T2).

This suggests that the teachers can transform what they learned from the PLE program into the MoNE-PEP to support children's self-regulation skills. In addition, T4 thought that the program's games were interesting and required children to pay attention:

I observed how playing games in various ways within the program made them more engaging for the children. When we played the hanging clothes game, I counted to three and told them to start on my count of three. Then I changed it. I say, 'Be careful, I might not count in order,' and I say 2-1-1-3. Some children would jump in without saying 3. I changed the rule even further: I will say '3' and put my hand on my head. I say 2-1-3 and raise my hand, and the children laugh and need to pay attention. I say 1-2-3 and put my hand on my nose, surprising them. They need to listen carefully, observe, and act accordingly. Games can be more fun this way... (T4).

It seems that the teacher revamped the games she was already using in the existing program. It was observed that during the implementation of the PLE Program, teachers made adjustments to support the cognitive, social, and behavioural development of children in their educational activities.

b) *Organising the learning environment:* Teachers who implemented the PLE Program in their classrooms observed that they organised the classroom environment in a way that allowed children to move freely during activities, facilitated ease and comfort in implementing activities, and allowed for both individual and group activities, as evident in the teachers' comments:

My classroom was small, so I did the program activities in the space of the classroom (T1).

I moved the tables to the sides, clearing the middle for play activities and reflection (T2).

I prepared what I needed for the next day's session. I brought shoes, a blanket, a hat, glasses, and a camera for the camp essentials activity (T4).

c) *Managing the education process:* From the interviews, it was determined that teachers used different strategies in the difficult situations they encountered in the practical education process, as seen below:

I ignore those who answer my questions without raising their hand (T2).

I sometimes change the position of children who are very active and disturb their friends. Sometimes, I sit them closer to me (T5).

In an activity that requires full attention, and when I verbally warn some children, the other children get distracted. I gather their attention by using my gestures, changing the tone of my voice... (T3).

I constantly explain the consequences of their behavior. It is very effective for some children, but not at all effective for others. I want them to think about it themselves (T4).

It is evident from the statements that teachers attempted to manage children's misbehaviour by reminding them of the classroom rules, providing explanations, reassigning children's places, ignoring the behaviour, maintaining eye contact, and using gestures and facial expressions.

d) *Evaluation:* Teachers stated that they used worksheets integrated with the play activities in each session of the PLE Program, as well as forms for children to self-assess, and conducted evaluations by asking questions at the end of the sessions.

The program included a worksheet with the instructions 'find the poisonous fruits' after the garden tour. I liked it. First, they find one poisonous fruit, then two. These worksheets are helpful for older students, such as my group (T3).

Before and sometimes after the reflection activities, I asked questions like, 'What did we learn today?'

Which skills did we develop? What did we do? Let us remember. We all have an assessment conversation together (T5).

The statements above indicate that the teachers' opinions about the program during the interviews were generally positive and applicable. The teachers' comments suggested that the program had a positive impact on both the children's development and their professional development. While teachers experienced difficulties managing some children's undesirable behaviours in practice, they generally emphasised the importance of features such as the easy availability of classroom materials, the play-based nature of the sessions, and the compatibility of the PLE Program with the MoNE-PEP. Teachers stated that they used worksheets integrated with play activities in each PLE Program session for assessment. They monitored the children's progress using these self-assessment sheets. An example of a self-regulation worksheet from the PLE, marked by two children themselves, is shown in Figure 1.

Figure 1

Self-regulation worksheet from the PLE Program, marked by two children themselves

Figure 1 shows the following questions: “Attention: I paid attention and ignored things that were not important. Impulse Control: I waited my turn and listened to directions. I didn’t interrupt others. I thought before acting. Memory: I remembered stories and directions. Emotion Regulation: I controlled my emotions when I was upset, anxious, or angry. Relaxation: I can calm down and relax quietly even after being excited or active. Body Control: I controlled my body while doing movement activities. Planning: I listened and talked about a plan with my peers before starting an activity. Collaboration: I worked friendly with others. I presented my ideas but also listened to others. Time Management: I did things quickly but without mistakes.” The child is expected to evaluate by selecting an option:

“😊 I did well; 😊 I did okay. I need some practice; 😞 It was difficult. I need more practice.”

The children could self-assess their attention, impulse control, memory, emotion regulation, relaxation, body control, planning, cooperation, and time management skills. In these examples from Session 13, the first child evaluated himself as needing a little more practice in time management. The second child evaluated himself as needing more practice in memory, relaxation, and cooperation, and as needing more support in body control, planning, and time management. The program provided children with opportunities to self-assess, allowing them to identify skills they need support with and gain awareness of their abilities.

3.2. Findings of child interviews

Questions were asked about which activity in the program they liked the most and why; which heroes and activities they remembered; how the children felt while performing the activities; their experiences of difficulty, worry, and anger; and the reasons for these emotions, as well as how they regulated their emotions. At the end of the data analysis, the themes "Which Activities I Liked", "Which Activities I Remember", and "Which Activities I Had Difficulty With" emerged.

a) Which Activities do I Like?

Children stated that they liked the stories and games more in the activities. The music used during the games strengthened their dreams, and they enjoyed playing them as a group. Children's expressions; C4: *"I liked the desert the most. The snakes were hissing and I felt as if I was in the desert"*, C2: *"I liked the sea excursion activity the most. While playing that game, I felt like I was swimming in the sea with my friends."* and C5: *"I liked the game of finding flowers. Sometimes there were such tricky games, I liked them"*. It was observed that they enjoyed participating in various group activities.

b) Which Activities Do I Remember?

The children remembered the stories of Zehra, Yiğit, and Kemal, the program's protagonists, about the problems they encountered in their adventures and how they solved them by asking the children for help. Among the games that developed self-regulation skills, participants mostly remembered the games that involved physical activities, such as Clapping, Yes-No, and drumming, along with their rules. C3: *"They were stuck on the mountain. There were poisonous plants. We rescued wild animals. Towels got wet in the sea. We have always helped Kemal, Zehra, and Yiğit. Otherwise, they would not have survived."*

From this statement, it is evident that the children participate in the program's activities. In addition, the child stated, *"Our teacher asked questions. We were supposed to say yes and no. I was surprised at first, but then I was able to do. That was so fun."* (C1). From the expression, it is seen that she remembers the rules of the game. C2 stated, *"We played the drum differently. First with our hands, then with our feet. We also kept in mind the drum player of our previous friend. I loved that game"*. It is understood that the rules of rhythm activities are also remembered and enjoyed.

The relaxation and mindfulness activities held at the end of each session were also explained by all children. For example, C1's *"We listened to music and dreamed"*, and C2's *"We thought as if we were walking in the forest with the sounds of birds. We sat and listened in silence"*, C3's *"We listened to the rain in the forest. Drops fell on us"*, C4's *"We listened to the animals and rested like this"*, C5's *"I remember the sunset, the cold desert. We watched the sky and the stars"*. It is clear from the expressions that all remembered relaxation and mindfulness activities.

c) Which Activities I Had Difficulty

It was observed that some children could not recall some of the verbal stories in the PLE that lacked pictures and were prepared to strengthen their working memory. For example, C3 said *"Our teacher told some stories, but I do not remember. It was about children"*. The statement implies that the child had difficulty remembering stories that

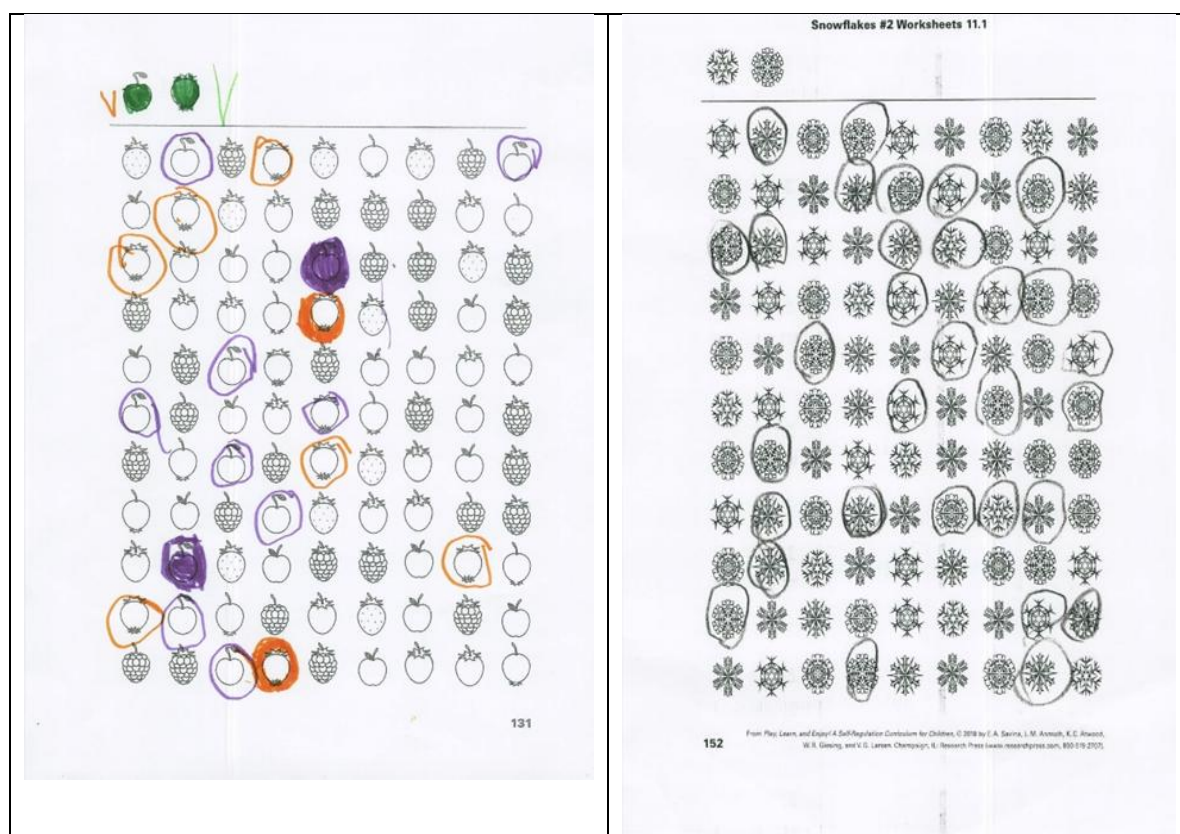
involved collaboration. Moreover, the children stated that they did not have difficulty playing the games with the known rules, but they were sometimes surprised and found them challenging in the first sessions when they had to play the games with different versions. For example, C4's expression *'We answered when our teacher raised hands, we kept silent when they lowered them. Then our teacher surprised us.'* C2's expression *'Well, I had a little difficulty when you said shark.'* The children had difficulty complying with the second rule, except for the first, which depended on verbal instruction.

It is interesting to note that although some children had difficulty playing games with surprises, they found the games more enjoyable. They learned to play the games according to the surprising rules. For example, C3 said *'We applauded when our teacher said the colors. Then she said, 'You will not clap when I say the colors.' I was surprised at first. It was so funny. Then, I opened my eyes and listened to my teacher.'*

The expression suggests that the child initially had difficulty following the game's rules but succeeded by having fun. Another challenging activity is the double-puzzle task, which requires the coordination of attention, cognitive flexibility, working memory, and inhibitory control. C4 said, *"I mixed the snowflakes. There were many. I marked some of them wrong."* It is evident from the child's comments that he had difficulty selecting two objects simultaneously among the others (Figure 2).

Figure 2

Paired object finding activities of two children participating in the PLE program



One way to explain why the activity was difficult is that, contrary to the established rule, children were required to follow instructions that conflicted with one another. For example, in the first game, children who applauded when colours were mentioned were required to applaud when objects, fruits, and animals were mentioned in the second game. In this case, children had to hold not just one concept (colours) in working memory, but three concepts (objects, fruits, and animals). They had to activate inhibitory control to avoid applauding when colours were mentioned, focus intently on the word, distinguish the word using cognitive flexibility, and become familiar with it. In Figure 2 above, at the end of the activity, they had to hold both objects in working memory to distinguish two similar objects on the worksheet from other similar objects, use cognitive flexibility and attention, inhibit themselves to avoid marking the similar object, and mark the correct object when presented. As can be seen, this was a much more challenging activity than simply selecting an object or concept.

4. Conclusion and Discussion

This study examined the views and experiences of teachers and children who participated in the PLE program. The results showed that teachers highlighted the PLE program's content, feasibility, and impact on children's development and professional development. The overlap between PLE activities and the MoNE program facilitated teachers' implementation of activities. During and after implementation, teachers demonstrated a greater understanding of self-regulation, thereby becoming more competent in supporting children's self-regulation. In a similar study, teachers reported attempting to support children's self-regulation through participation, encouraging their independent initiative, listening to their voices and ideas, and engaging them in the program (Kangas et al., 2015). Therefore, teachers reported positive views of play-based self-regulation training activities as a tool for developing children's working memory, inhibitory control, attention, verbal and auditory memory, emotional and social regulation, vocabulary, expression, and receptive language skills. They also integrated self-regulation-related features, such as inhibitory control, into other program activities and adapted their previous games into different versions, often diversifying them.

From the children's and teachers' opinions about the PLE Program, it was observed that the children had fun with their friends during music, relaxation, mindfulness, and play activities and remembered the instructions for these activities. The children were happy to work with their peers in the collaborative activities, solve problems, and help the characters in the stories. This expanded the child's circle of friends and created opportunities for them to develop relationships. The results of this study are consistent with those of Gerrits et al. (2005), who found that children showed better impulse control, were more friendly, supported peer play, and were more adaptable. Another result is that even when children struggle with some activities and cannot perform them as instructed, they find them enjoyable, try again, and express that they succeeded when they put in the effort. The PLE encouraged children to say, "I couldn't do it, but then I could," and their efforts to change their developmental trajectory in self-regulation. Based on the positive relationship between self-regulation and effort control (Blair & Razza, 2007), children participating in the PLE demonstrated greater effort and self-confidence as their self-regulation skills improved. Consequently, it was determined that the children had favourable opinions about the PLE.

In conclusion, this study demonstrated that the PLE Program contributes to teachers' professional development during both teacher training and implementation. Based on teachers' comments, children who participated in the program showed improvements in self-regulation. Hence, practical seminars can be offered to in-service teachers to support preschool children's self-regulation skills. It is also important to integrate the concept of self-regulation across various courses in teacher education programs so that prospective teachers can understand it and develop relevant application skills. In this study, the PLE Program developed by Savina et al. (2018) was adapted into Turkish. The development of self-regulation education programs for preschool children that can be implemented across Türkiye is recommended.

5. Contribution Declaration

Both authors contributed to conceptualization, methodology, validation, writing, review, editing, and analysis. The first author contributed to data collection, and the second author contributed to supervision.

6. Conflict of Interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

7. Supporter and Grant Declaration

The authors would like to extend their sincere thanks to the children and teachers who participated in the study.

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