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Evaluation of Teacher's Classroom Practices in the Context of Vygotsky's Cultural-Historical Theory*

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Abstract

ÖThe effective continuation of the learning process depends on the teacher's interaction with children. Teachers must be facilitative in this interaction process while guiding children's learning. This study focuses on determining how teachers' classroom practices are reflected in the learning environment in the context of Vygotsky's cultural-historical theory. The study was designed as a case study from qualitative research models. All six teachers who constituted the study's data set worked in the same preschool education institution. Each teacher was observed for five days during the half-day period at the school using the non-participant observer technique. The observations were followed according to the "Teacher Observation Form" prepared by the researchers. This form included five headings: "Use of Language", "Use of Mediators," "Shared Activity," "Zone of the Proximal Development," and "Play." Content analysis was used to analyze the observations. As a result, it was concluded that teachers need to be informed about Vygotsky's cultural-historical theory in terms of theory and practice and that they need to share practices in the theory infrastructure.

Keywords: Vygotsky, cultural-historical theory, early childhood, classroom practices, learning environment

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Introduction

Learning in the early years is critical for a child's lifelong development (Burlacu, 2013). Investing in education in a critical period such as the preschool period is seen as very important in the long run in terms of individual and social benefits. Dünya Bankası (The World Bank), focusing on issues such as economic analysis of education, the transition from school to work life, finance, and expenditures to scaffolding (Sever, 2019), reports that investing in children at an early stage will offer returns that will make a difference in the child's life in terms of economic productivity (World Bank, 2013; Jenkins, 2014). The United Nations 2030 agenda, within the scope of sustainable development goals, aims to continue programs to train manpower for future competitive jobs and to improve the quality of teachers, as preschool education is important in terms of its impact on primary school readiness and the development of a qualified workforce in Turkey (Ministry of Development [MoD], 2017). According to Auld and Morris (2019), early childhood education systems should be aligned with 21st-century skills to invest in human capital. Thus, the International Early Learning Study (IELS) will make it possible to assess early learning outcomes. According to a study conducted with children aged 3-6 in China, the quality of preschool education was a predictor of children's language, early math, and social skills (Li et al., 2019). In this respect, it has been determined that quality education has important compensatory effects on the development of rural children and can help reduce the rural-urban achievement gap (Schmitt et al., 2018). Classroom quality is a predictive factor in explaining children's learning and development to ensure equal opportunities in education. In addition, it should also be sustainable once equality of opportunity is achieved. Therefore, to ensure the functioning of quality preschool education programs, it is necessary to focus on the importance of the "teacher" effect, which will enable children to enrich the classroom, scaffolding their skill development, and progress in preparation for primary school.

Important transformations are taking place in education. In this transformation process, teachers, who form the basis of education, have been burdened with responsibilities such as establishing strong relationships with children, creating a positive learning climate, and being willing to engage in lifelong learning. These responsibilities have led teachers to seek new approaches to children's education (Ministry of National Education [MoNE], 2017). In this respect, Kim et al. (2019) argue that teacher education quality should be improved to develop competencies known as 21st-century skills. For a quality teaching and learning environment, there is a need to enrich teacher-child interactions (Pianta, 2017: 17-19). It is necessary to align these relationships with the curriculum (White, 2020). Different studies have been conducted on teacher-child interactions, and it has been found that preschool classroom experiences are positively associated with children's school readiness skills (Hatfield et al., 2016) and cognitive skills (Hu et al., 2017).

When children's development in academic and social skills is evaluated, it is seen that their gains in language-related academic skills are related to the classroom processes that children directly experience. While the instructional climate of the classroom

impacts children's academic skill outcomes, the quality of the teacher-child relationship is effective in children's acquisition of social skills (Howes et al., 2008). Hu et al. (2018) concluded that high-quality teacher-child interactions in early learning environments consistently explain the development of children's later academic and cognitive skills. In addition, a statistically significant and positive relationship was found between classroom quality and children's math, language, and literacy skills (Carr et al., 2019; Phillips et al., 2009). Curby et al. (2010) state that teachers who provide more emotional scaffolding to their students and adopt a positive environment and functioning in the classroom indirectly provide educational support. It is shown that teachers sensitive to children's needs scaffolding children more emotionally, and children are more likely to fulfill the teacher's wishes during the next activity (Phillips et al., 2009). When the studies are evaluated, it is seen that quality teacher-child interaction affects children's learning areas and their interest in learning.

Rather than a homogenizing tendency (Nóvoa, 2018), education should adopt an approach that supports children individually and allows them to construct their learning in a cultural environment (Bredekamp, 2015: 116). Moreover, teachers with an educational approach that puts the child at the center and considers his/her best interests will have a higher quality of interaction with children (Hausfather, 1996; Yang & Hu, 2019). The Russian Federation follows an education program based on a creative/constructivist, experience-based, play-based, and child-centered approach based on Vygotsky's theory (Bertram & Pascal, 2016: 161). Vygotsky's work has recently influenced education in the US. The concept of constructivism (Sharkins et al., 2017) led to the restructuring of the curriculum after Bruner in the US and formed the basis of the curriculum design model (Hapenciuc, 2019). Elena Bodrova and Deborah J. Leong developed an early childhood curriculum called "Tools of the Mind" based on Vygotsky's principles of cultural-historical psychology within a project. The Tools of the Mind Project began as a collaboration of public schools to develop basic cognitive and early literacy skills in kindergarteners (Bodrova & Leong, 2001).

The Tools of the Mind Project is based on Vygotsky's cultural-historical theory. This curriculum aims to facilitate children to regulate their behavior and guide their learning. To this end, several tools are used in the teaching and learning process, including strategies that support self-regulation and those that make self-regulation strategies suitable for use in academic activities. In this way, children acquire and internalize social, emotional, and cognitive self-regulation skills. Through mediators, teachers assess children's development individually and provide support (scaffolding) "according to the child" (Bodrova & Leong, 2013: 94). If one of the main goals of preschool education is to prepare children for primary school, the Tools of the Mind Curriculum aims to help young children develop cognitive and social-emotional competencies. This curriculum is among the innovative early childhood programs in UNESCO's international database (Bodrova & Leong, 2018b: 1095). It is considered one of the seven wonders of early childhood education (Lash et al., 2016). It has been found that children receiving education with this curriculum have reduced behavioral problems and aggression in the classroom environment, increased self-regulation skills and

social-emotional competencies, improved teacher-child relationships (Blair et al., 2018; Bodrova & Leong, 2001), improved literacy, self-control, and attention regulation, exhibited more prosocial behaviors, and reduced teacher burnout and bullying among children (Diamond et al., 2019). In addition, it has been shown that these skills acquired by children provide high differences in reading and vocabulary and increase the school success of children in grades 3 and 4 of primary school (Bodrova & Leong, 2018a).

Vygotsky's cultural-historical theory emphasizes the positioning of context in learning. Vygotsky argues that children learn through social interaction. Considering the child's developmental characteristics, the social and cultural environment is important in learning and internalizing learning (Bredekamp, 2015: 116-117). When children learn, instead of a structured program, an effective learning process occurs through social interaction, using learning symbols, and being flexible enough to adapt to the situations in the classroom context. In this way, children reinterpret knowledge by constructing it themselves and experimenting repeatedly to deepen their knowledge, and learning is internalized by children in this way (Mejía-Arauz et al., 2018). Vygotsky studied the relationship between thought and language in learning. In preschool, children use language as a tool of thought (Atak, 2017). Therefore, speech becomes the most important tool of learning. Vygotsky focused on how cognitive functions such as language, thought, learning, perception, and memory develop (Bodrova & Leong, 2013: 90) and how speech and thinking are combined in constructing meaning (Mahn, 2012). These elements of the mind are not independent of each other. Language and thought to follow a different path until a certain level of cognition. Afterward, the development of language parallels that of thought. Understanding and naming a concept through language creates "meaning." The process of meaning is the transition from low mental functions to high mental functions (Vygotsky, 2018: 39-40).

According to Vygotsky, the zone of proximal development is the difference between what a child with developing mental functions can do alone without help and what they can do with help (Eun, 2018; Veresov, 2004). For positive differences to occur in potential development, scaffolding is essential. The emergence of the child's autonomy is possible with the help and cooperation of adults or peers (Marginson & Dang, 2016). Thus, the child's interaction with an adult or a peer with higher skills through language enables him/her to progress in his/her potential developmental area. Hapenciuc (2019) has studied how cultural-historical theory is perceived in the American cultural field. According to his studies, Vygotsky's scientifically grounded pedagogy is based on the research subject, pedagogical normativity, and research methodology. Learning is the reconstruction of subjective meanings formed in social cognition through intersubjective processes in a cultural-historical sense. It is the subjective construction (from a new perspective) of knowledge made meaningful through social interaction. Pedagogical normativity is the child's formation of effective thinking and learning mechanisms through scaffolding.

Vygotsky emphasized that every child should actively participate in the process of interaction with classmates and teachers (Maier-Höfer, 2015). Children's participation

has also been found to have a positive relationship with self-regulation skills (Marti et al., 2018). Children should be encouraged to experience a sense of participation (Bae, 2010). Kontos and Wilcox-Herzog (1997) examined the relationship between teacher involvement (as an activity environment and social context) and the developmental levels of children in early childhood classrooms. Teacher involvement was found to be related to the development of children's social competencies and cognitive skills. To promote children's learning and understanding in the classroom, teachers need to determine how to support children (Kim et al., 2019). In this context, teachers act as support providers. This support that adults give to children's learning activities encourages the child to study at the next level of what they can do. The tools of the mind reveal that children learn from adults, which is the teacher's role in the learning environment. The teacher guides children in this process (Bodrova & Leong, 2001; Bodrova & Leong, 2009). The development of children's academic and social skills is based on the quality of the curriculum, the teacher, teacher-child interaction, and the quality of the activities carried out in the classroom. In all these conditions, it is the teacher who will provide support to the child who will build their learning.

In terms of increasing the quality of education of preschool children, it has started to be considered how this curriculum program, created in the light of Vygotsky's theory and integrated with the US education system, can be implemented in our education system. When the domestic studies and practices in the context of Vygotsky's cultural-historical theory were examined within the limitations of the preschool period, it was determined that there were research studies on pretend play (Keleş ve diğerleri, 2018), play planning (Güler, 2010), children's self-directed speech (Keleş ve Alisinanoğlu, 2014) and free play (Aras, 2016) and theoretically informative-introductory studies (Ahioğlu, 2008; Atak, 2017; Bayhan ve Saranlı, 2010; Öncü, 1999; Palut, 2005). The lack of research on the teacher dimension has led researchers to study this issue. This study aims to examine the reflection of the teacher's classroom practices on the learning environment in the context of Vygotsky's cultural-historical theory in supporting children's development. In line with this purpose, the question "How are the implementation processes of preschool teachers in the learning environment related to (a) use of language, (b) use of mediators, (c) zone of the proximal development, (d) shared activity and (e) play in the context of Vygotsky's cultural-historical theory?" was sought to be answered.

Method

Research Design

This study, which aims to examine the teacher's classroom practices in the context of Vygotsky's cultural-historical theory, was designed as a case study, one of the qualitative research methods. A case study is an in-depth investigation of a situation or phenomenon that the researcher cannot control in the real-life environment of the researched subject without intervention (Yıldırım ve Şimşek, 2013: 315; Yin, 2017: 5).

This research design focuses on explaining and describing the comprehension, discovery, and interpretation of the situation holistically (Merriam, 2013: 40). The main purpose of this design is to describe and interpret the situation in detail in its context (Paker, 2015: 119). Accordingly, when children entered the preschool education institution, teacher behaviors were observed during free play, structured and routine activity processes, and feeding times.

Participants

The study participants were determined by the typical case sampling method, which is one of the purposeful sampling types based on the criterion of easy accessibility. The number of participants and sample size are kept quite small in studies using detailed and in-depth research methods (Yıldırım ve Şimşek, 2013: 320-321). The determination of the teachers constituting the study group was based on their willingness and voluntariness to participate in the study. Participating teachers were informed about the study and signed a consent form. Six teachers working in independent kindergartens affiliated with the Directorate of National Education in Ankara province center during the 2017-2018 academic year and teaching 60-72-month-old children participated in the study. Between March 13, 2018, and April 20, 2018, each teacher was observed for 135 hours between 08.00-12.30 and 13.00-17.30 hours on five days - during their half-day period at the school. Each teacher was observed for an average of 15 hours. All the teachers in the three morning and three-afternoon groups were female. The length of service of these teachers ranged between 8-29 years. Their average tenure was 14.33 years (Table I).

Table I

Descriptive characteristics of teachers

Teacher's Code names	Gender of the teacher	Type of school she works in	Group time	Class size		Recorded Observation times	Teacher's length of service
T1	Female	Kindergarten	Morning	5 girls	10 boys	11 hours 24 min.	29 years
T2	Female	Kindergarten	Afternoon	10 girls	13 boys	12 hours 40 min.	9 years
T3	Female	Kindergarten	Morning	12 girls	7 boys	17 hours 07 min.	18 years
T4	Female	Kindergarten	Afternoon	8 girls	7 boys	12 hours 03 min.	14 years
T5	Female	Kindergarten	Morning	11 girls	11 boys	8 hours 27 min. dk	8 years

T6	Female	Kindergarten	Afternoon	7 girls	9 boys	11 hours 41 min.	8 years

Data Collection Method

In case studies, data are collected in various methods to describe the situation as reflectively and accurately as possible. In this study, data were obtained through video recordings and observation notes. The observer conducted the observation through non-participant observation.

Data Collection Tools

The study used two data collection tools: "Teacher Recognition Form" and "Teacher Behavior Observation Form in the Context of Vygotsky Cultural-Historical Theory."

Teacher Recognition Form

To get to know the teachers participating in the study, a "Teacher Recognition Form" was prepared, which included information such as age, gender, professional experience, type of school, age group, length of service, etc.

Teacher Behavior Observation Form in the Context of Vygotsky Cultural-Historical Theory

To determine the reflection of Vygotsky's cultural-historical theory on the learning environment, the researchers developed the "Teacher Behavior Observation Form in the Context of Vygotsky's Cultural-Historical Theory." The observation form includes five sections and 82 items: Use of Language (12 items), Use of Mediators (12 items), Shared Activity (20 items), Zone of the Proximal Development (8 items), and Play (30 items). These items were prepared to determine whether teachers use the mind's tools to support the children's learning processes. The observation notes related to each item was described by the researcher who conducted the observation by taking notes in the "explanation" sections of the skills exhibited by the teacher.

In creating the "Teacher Behavior Observation Form in the Context of Vygotsky's Cultural-Historical Theory," a large pool of items was created by examining the literature in detail. Then, it was presented to two field experts to obtain content validity. The form was finalized as five sections and 82 items by making the specified arrangements.

Data Analysis

The transcriptions of the data collected in the research were transferred to a computer file by watching the video recordings and overlapping the information taken from the field notes in line with the five areas determined at the beginning and the items under these headings. In this way, a codebook was created and transformed into a holistic data set. While coding, the conceptual framework of the Mind's Tools was utilized. Then, the codings were checked again on the data set, which the researchers read intensively several times, and necessary changes were made. Categories were determined based on the coding. Since the research was conducted by determining a

theoretical framework, keeping the themes as initially determined was deemed appropriate. Content analysis, one of the qualitative research methods, was used to analyze these data. The categories and codes that emerged based on the themes are shown in Table II.

Table II

Code system of the teacher's classroom practice (Code system for findings)

Theme	Category	Code
Use of language	Development of meaning	Verbal expressions
		Verbal clues
		Written language
	Self-directed speech	
	Social conversation	
Use of Mediators	Function of Mediators	
	Mediators in behavior	
	Mediators as supporters	
Shared activity	The role of the teacher	Guidance
		Increasing interaction and dialogue
	Organizingthe environment	Affective
		Physical
Zone of the Proximal Development	Organizing others	
	Encouraging peer collaboration	
	Providing Support (Scaffolding)	
	Performance Development	
Play	Symbolic function	
	Facilitation	
	Development	
	Enrichment	

Credibility and Ethics

In the study, codes such as T1, T2, T6 for teachers and C1, C2, C23 for children were used as nicknames to not reveal the participants' identities. In order to make the findings as realistic as possible, the entire observation process was video recorded. It is stated that the researcher recording the observed environment with a device and transferring it to writing this way increases reliability (Creswell, 2016: 253). In this way, it was possible to examine it again and again later and analyze it with the field notes. Guba and Lincoln (1994) emphasized that importance should be given to the trustworthiness of the situation being researched. He used the elements of transferability, consistency, and confirmability to ensure credibility (Başkale, 2016). In order to present the situation researched with functional criteria such as appropriateness, accuracy, and reliability, six teachers were used in this study to ensure participant diversity. Regarding the reliability of the research, different coders coded

the same data set, and a consensus was obtained between the coders. While observing the participant, five-day video recordings of a random teacher were watched and coded by an independent coder separate from the researcher. Then, the transcribed texts were read independently to determine a common opinion. The texts in the coded data were re-examined by the researcher and the independent coder together. As a result of discussions and comparisons, the coders reached a consensus. This situation is evaluated to ensure the objectivity of the research (Lincoln & Guba, 1985: 292) when other researchers other than a single researcher have parallel meanings of a phenomenon (Table III).

Table III

The methods followed to ensure the credibility of the study

Validity and Reliability	Methods that can be used (Guba & Lincoln, 1994)	Reflected in the study
Internal validity	Credibility	The researcher observed the participants in their natural environment, such as the classroom.
External validity Transferability	Detailed description	Long-term interaction was ensured by observing children from free play times to the time they left school.
Reliability	Consistency review	While watching the study records, the events in the classroom were conveyed directly without adding comments.
Objectivity Competence of the researcher	Verifiability	Participant diversity was provided.

Findings

Use of Language

It was determined that teachers' classroom practices were related to meaning development, self-directed speech, and social speech through "Language Use."

Meaning Development

Teachers' use of "verbal expressions," "verbal cues," and "written language" in classroom practices are defined under the category of meaning development. In the context of verbal expressions, it was coded as teachers attracting children's attention with verbal instructions, modeling children to verbalize their behaviors, and then expecting children to verbalize their behaviors. The use of verbal expressions attracted children's attention and gave the language a helping role in performing the behavior. It was aimed to enable children to acquire the meaning concretely by the teacher both labeling the behavior with language and taking action while performing a behavior. Teacher observations are given below.

It was observed that all teachers used verbal instructions to attract children's attention. T1 used verbal instructions mostly when moving from one activity to another and once as a warning. T2 used encouraging questions, counting to five, and fingerplays at the

activity's beginning and end to get the children to pay attention to him. T3 motivated the children individually with verbal instructions and attracted their attention by gamifying them. It was observed that T3 used verbal instructions the most, and T4 and T5 used them the least. Teachers' use of verbal instructions helped children to perceive the things they should pay attention to more and to focus their attention on the teacher rather than many other things in the environment. Teachers guided children to organize their attention by using verbal instructions.

> T2: "Let's see who are the most hardworking bees who collect their class. Let's look at the hardest working bees: well done C1, well done C2, well done C3, well done C4 and C5."

Four teachers (T1, T2, T3, T5) expressed what they did verbally while performing a behavior. T3 showed this behavior the most. While T1 and T2 used verbal expressions to inform the children, especially when leaving the classroom, T3 and T5 also used verbal expressions for their behaviors. The teacher's use of verbal expressions about her actions while performing a behavior increases her awareness and consciousness about her behavior. When it is considered that children learn by observing and imitating, teachers need to think and plan before performing the behavior as it will serve as a model for children.

> In free time, T1 counted the children and said to herself, "There are not 5 people again,"walking towards her desk and taking notes on a piece of paper.

> T2 looked at the children as she headed towards the door and said, "I'm going to take a look outside. If it's empty, I think we should hang these pictures there."

Only one of the teachers (T1) specifically expected children to verbalize their behaviors. The child naming his/her behavior aloud shows that he/she has learned a facilitative way of regulating his/her behavior. It is an indication that the child has started to guide himself/herself.

> During the free play time, a girl brought the shape she made with dough to the teacher and showed it. T1 took the dough in her hand and said, "Wow, I can see that you really enjoyed your work. It is beautiful." Then, while the child pretended to eat her cake, she said, "My beautiful cake."

Another code for meaning development is "verbal clues." Teachers used verbal clues to make children think and to serve as reminders. In the observations, it was observed that verbal clues were used by four teachers (T1, T2, T3, and T5). It was noted that T3 exhibited such behaviors the most. T3 used verbal expressions to remind the children how to do an activity they would experience for the first time and participated in the task with them. It was observed that T4 and T6 did not use verbal clues.

> T3 said during the class gathering time, "Yes, there is a person's book here. He is a boy with blond hair and black clothes. He has white skin. His eyes are colored." A child asked, "Who is this child?" T3: "Yes, who is this child?" he looked at the class with curious eyes. One of the children answered by saying, "Child 6". T3's face lit up, and he said, "Yes, C6". C6 ran towards his teacher, picked up his book, and took it back to his place. S3 continued to ask again. "Yes

> (pointing to the book), she has black hair, and her hair is a bit long." A few of the children collectively said "C" out loud. S3 continued, "She is wearing a blue sweater. Yes, C7." (She handed the book to C7.) S3 continued, "Yes. (the teacher took another book and showed it.) She is wearing a black and white outfit with stripes. There is a duck in front of her." One child answered, "C8". T3 told C8, "Take your book." and handed the book to her.

Verbal clues were given to help children remember the concept. Three of the teachers (T2, T3, T6) were observed to concretize a concept by giving clues before answering directly. T2 used clues to give children the opportunity to guess. T6 tried to explain the concept to the children, and T3 used the clues for the children to discover the concept rather than taking part in the task together with the children. In this way, T3 provided clues by expressing what was wanted to be explained with different words to give children an opportunity. In one statement, T3 answered the question he asked himself without asking the children, but then he used clues in another statement to give children the opportunity to discover. In this way, it is aimed to ensure the development of thinking skills.

> As T3 left the playroom, she stopped at the door and asked the children a question. "There is an animal that comes out of the ground with the spring rains? Let's see who knows. But to my ear. No one says it. Whoever gives the right answer goes up to the classroom. It crawls like this. It has antennae. Then there's the shell. Shall we start? Those who know go up to the classroom. Those who don't know go behind the desk." Then she said, "Now it has a shell. It is so tiny. It is a sticky animal. It walks by, sticking to the walls." The child said, "Forty feet?" T3 said: "It starts with the letter 's,'" and the child got it right. T3 continued in this way one by one until all the children knew.

Most teachers (T1, T2, T3, and T4) used verbal reminders and Mediators to accomplish tasks. It was observed that they generally used verbal reminders for classroom management, routine transitions, and activity transitions. Teachers guided children to focus their attention for a certain time. The use of verbal reminders together with Mediators supports children's cognitive development and helps them to focus and concentrate their attention.

> During the conversation time, when T3 wants to change the places of some of the children sitting around her to make it easier for them to listen, she sings a song containing the names of the children (stars are not counted in the sky, raw eggs are not peeled, C1 and C2 are inseparable) and changes the places of the children and makes it easier for them to pay attention.

One of the teachers (T2) was observed to model the activities by using drawings as a reminder. In this way, the teacher used drawing to remember what was said. However, there were no expressions encouraging children to make drawings. The observations determined that other teachers (T1, T3, T4, T5, T6) did not use drawings or encourage children to use them. It was observed that the use of drawing by the teacher in the development of meaning was considered important in written language, facilitating remembering, organizing ideas, and structuring thoughts.

T2: " C1 was asked, "What do you think of when I say cotton? C1 replied to her teacher as "Snow princess, cotton candy". T2: "Very beautiful things came out. Let me write them down. (she carried the board to a place where the children could see it and started to draw by creating a concept map). C1 thought of a princess, Ahmet thought of candy." C2: "Teacher, I thought of cotton because we wipe our nail polish." T2: "Ecem thought of real cotton." C3: "I thought of a rabbit, teacher." Other children listed the things they thought of one by one: Goat, lamb, pom-pom, snow...

Self-Directed Speech

Self-directed speech is a type in which children do not intend to communicate. The child's speech is vocalized and can be heard by others. However, the child also uses this self-directed speech as a self-regulatory function. This type of speech has an important place in the use of language as it gives the meaning that thinking and speaking are combined. It was observed that the children in T1, T2, and T3's classes were allowed to talk to themselves about what they were doing while doing a task, and no negative intervention was made. Three teachers (T4, T5, and T6) were more authoritarian and often told children to be quiet and not to make any noise. It is also observed that those supporting children to talk to themselves while doing something do not interfere and limit their conversations with their peers. It can be said that T2, which expects children to express themselves verbally while performing their behaviors, provides more scaffolding for children to regulate their behaviors.

While cutting a circle with scissors, one of the children in T1's class discovered the numbers on the scissors, counted them as 1, 2, 3, 4, and 5, and continued the cutting activity by saying, "This scissors showed up to 5".

While continuing her activity, Ç9, who was in T3's class, took the butterfly she had made in her hand and said, "I used to be a little caterpillar. I grew up, I became a beautiful butterfly, and then I flew around and flew around" and talked by flying the butterfly in her hand.

Social Conversation

Young children need to talk to others to become aware of their thoughts. On the other hand, the teacher can check the accuracy of the information the children have acquired through social talk. When children talk to their peers during the activity, learning takes place along with language. Social talk also supports the child's thinking while talking.

The children in T1's class usually sat at the table and communicated with each other during the activity. T1 took these conversations as an opportunity and only listened to them. She intervened when there was a situation related to misconceptions. T3 fully supported the children's collaboration (ensuring peer collaboration) and their conversations about what they were doing and did not intervene in all the activities at the table. The children in T5's class rarely talked to each other during the activities due to the teacher's constant warnings about being quiet, and they usually kept their silence even when T5 left the classroom. T6 does not suppress children's talking as strictly as T5, but it was observed that she also asked them not to talk during the activity.

> Several girls worked at the table during the observation of T2's class during free play time. C1 liked C2's dough. She said, "Your dough has a beautiful color". Ç2: "Take it then," and handed her a piece of dough. C1: "No, I will not mix it," and continued to make a girl figure out of the dough. C2: "I think you should make her shoes colorful." C1 did not respond. Meanwhile, C3, who was working at the same table, said, "I think you made a bride." C1: "Yes, my bride will be like this." While continuing to shape the dough in his hand, C3 said, "I will make these parts and then I will make her head." C1 pointed to his shape and said, "I am making her feet from the beginning." Listening to them, C2 applauded and said, "Ay ay, it is very beautiful."

Only one of the teachers (T3) allowed children to talk while thinking. T3 directed children to think mostly through questions. It was observed that she allowed children to talk about a book they read or before semi-structured activities and plays in a way that would allow for intellectual guidance.

> After breakfast, T3 extended the free play time and asked the children to come to the center area. (Showing the ropes in her hand) "There are two ropes. I wonder what kind of a play we will play with them?" and allowed the children to say the answers they thought aloud.

It was observed that three of the teachers (T1, T2, and T3) said out loud the strategies to be followed to solve a problem.

> While they were doing an activity at the table, one of the children called out to T2, saying, "Teacher, it doesn't stick." T2: "Your hands are glue. It sticks to your finger as soon as you touch the eye. Ask for help from each other. Say "Can you help me?" to your friend while sticking.

It was observed that three teachers (T1, T3, and T4), especially T3, enabled children to participate mentally in the activities.

> After reading the book with the children, T3 asked them, "What should be the name of this book?". She received answers such as "Sad frog family" and " Non-jumping frog family".

It was observed that two of the teachers (T1 and T3) asked some questions to the children to check whether the main topic, concept, or activity they wanted to explain was understood correctly by the children. This awareness of the teachers led the children to think again.

> T3 first explained the play they played with chairs step by step. To check for understanding, he asked the children, "What are the play's rules?". He waited for a response from the children.
>
> T3 turned to the children and said, "First, we pass through the blue cushions, take a chair, make a Moon Grandpa around the carpet, and drink water." Then he asked the children, "What is the drinking water order?". He waited for an answer...

Two teachers (T2 and T3) checked children in different contexts to determine whether they understood a concept. Both participants were observed to have examples of children's counting acquisition. The other four participants checked children's understanding through repetition but did not engage in any control behavior in different contexts.

> T2 first asked the child to write the numbers on the board, and she said. Then, she asked the child to look at the flower with numbers written on the petals. She asked the child to take some clothespins from a bag with numbers written on them. On the clothespins, both the numbers are expressed as numbers, and there are pom-poms as many as the number. The child pulled the clothespin, found the leaf with the number, and put it on. When the child said the number incorrectly, T2 made him/her count the pom-poms and found the correct number.

The Use of Mediators

The theme "Use of Mediators" was examined under three categories: the function of Mediators, Mediators in behaviors, and Mediators as supporters.

Function of Mediators

Another important concept in Vygotsky's cultural-historical theory is "the use of mediators." Mediators are mental reminders and facilitators that help children solve problems and retain information and are used to internalize knowledge. In the observations, teachers first created awareness of children's attention to use mediators. Teachers then introduced the tool to the children and explained how to use the tools in the classroom. Sample teacher observations are given below.

Two teachers (T1 and T3) were observed to check that the child's attention was where it should be focused. It was observed that T1 and T3 asked questions to the children for this purpose, and T3 also used the tool to attract attention to the focus.

> To the child who tried to roll the paper with his/her hand while looking at his/her friend (in the study of wrapping paper on CD), T1 said: "Look at what you are doing, children! Look at the area where you are working while you are working. I can't do that work with my hand (shows a circle movement) with my eyes elsewhere (like looking to the sides)."

> T3: "Children who hear me should take their binoculars. Look at me."

Three teachers (T2, T3, and T4) introduced the tools to the children and gave information about how to use them. While T4 used the tool for rules, T2 and T3 used the tool in plays and activities. Using the intermediary, children gained external guidance and found the opportunity to control themselves.

> T4: "Raising a finger means "Teacher."" She told the children. "Raise your finger when you want to say something. Speak when I give you the right to speak," she explained. "This (he pointed by raising his finger) means 'Teacher'."

Mediators in behavior

Mediators are meaningful and usable for preschool children when they are concrete, explicit, and externally present. In the classroom observations, the teachers also used concrete objects or pictures to make the mediators concrete and explicit. Only two of the teachers (T3 and T4) supported the children by using clues such as concrete objects or pictures so that they could start working independently.

> (He took a block in his hand.) T3 "Now every time I hit, two people from the front will take their chairs and move to the table." (to eat fruit)
>
> In free time, T3 and T4 placed objects such as paints and worksheets on the tables and directed the children to the tables they were interested in by pointing to them.

It was observed that only one of the teachers (T4) enabled children to use external mediators in studies such as perception, attention, and memory. The use of external mediators helps children to remember.

> While T4 was having the children do a reading and writing preparation activity, she told them, "On the last page, there are the numbers 1, 2, 3, 4, 5. Now you have learned these numbers. If you can't remember them, you can look there." and pointed to the place on the cupboard where flowers were hanging as many as the number of numbers.

Mediators as supporters

Teachers used mediators as a supportive tool to regulate children's behaviors or to help them acquire new knowledge/skills. It was observed that all teachers, except T5, drew children's attention with finger plays, songs, and rhymes during activity transitions. The teacher who used these attention attractors the least was T1. T1 mostly attracted children's attention with verbal instructions.

> T6 started to sing the song "Let's join hands and join the ring, come on C10 you come and let's play oy oy oy, come on C11 you come and let's play oy oy, come on C12 you come and let's play oy oy oy" while calling the children to collect their materials on the table and come to the play.

It was observed that only two of the teachers (T3 and T4) created mediators for children to follow their daily routines. While T3 used to play as a mediator, T4 used music.

> When T3 waited at the door with a play by saying, "Come on, children," during the observation period, the children realized it was time for breakfast and lined up. T3 used the play as a tool. When breakfast time approached, she called the children at the door and reminded them it was time to eat with a play.

Shared Activity

One of the teacher's classroom practices is revealed by the "shared activity" theme. A shared activity is the realization of an activity, learning, problem, or play between two or more people. In this context, the role of the teacher in the classroom and what she does while learning and teaching take place were determined. Based on the observations, the theme of "shared activity" was analyzed under four categories: the role of the teacher, organizing the environment, organizing others, and encouraging peer collaboration.

The role of the teacher

The "teacher's role" in the shared activity process was coded as guiding, increasing interaction and dialog.

In order to support the learning of classroom rules, it was observed that when the children in the class forgot the rules of the play, the teacher asked them a question to remind them of the rules. In this way, it is thought that it will permanently affect children to remember the rule again.

> During free time, when some boys in T3's class made guns and played, the teacher asked them, "Were we playing with guns in class?". "You need to turn it into something else. What can you turn it into?" (there is a rule not to play armed plays in the classroom).

Four teachers (T1, T2, T3, and T6) were observed to create strategies children could use daily to solve problems. The teacher assumed the role of creating facilitating opportunities during an action performed by the children.

> On the sudoku worksheet that T1 gave to the children, there were rectangle, ellipse, hexagon, and circle shapes. When the children had difficulty drawing the hexagon, T1 showed a different strategy: "You can make the hexagon like the sun."

> In T3's class, when children were collecting small toys, T3 said: "You can roll up your T-shirt and collect them there."

Another dimension of the teacher's role in the shared activity process is "increasing interaction and dialog." In this way, children actively participate, mentally focus and construct their understanding. In this context, it was observed that the teacher asked questions to the children and evaluated the answers given to the questions.

In the active learning process, the teacher ensures the direct participation of children. Observations revealed that three teachers (T1, T2, and T3) guided children to construct their understanding by asking them questions.

> T2 asked C1, "What did they pay attention to regarding cleanliness in this picture?" C1 answered aloud by saying, "They wore gloves." T2 nodded and said, "They wore gloves, glasses..." Without waiting for T2 to finish, İrem Cx said, "They also wore hats". T2 continued, "They wore bonnets on their heads. Their hair can fall into the food while cooking. They wore glasses. So why did they wear glasses?" C2: "So that oil would not splash in their eyes." T2 asked the other children, "Maybe. What else could happen?" Sarp Cx answered, "So that his eyelashes would not fall off." T2 said, "Yes, that came to my mind first. Yes, while cooking, they took themselves to safety so that their eyelashes would not fall into the food, and what Ahmet said is very true. They took themselves to safety so that oil would not splash into our eyes."

It was observed that three teachers (T1, T2, and T3) focused on "how they reached" their answers when they asked a question. This reduces the possibility of random correct answers and supports their self-expression and thinking skills.

> T1: (addressing C13) "Are those shoes of your street or inside shoes?" C13 only answered by saying, "Yes." T1 asked again, "Did you change your shoes inside? Were your shoes like that?"

> C13, making his hands into fists and getting angry with his teacher, replied, "Yes. Look, look at the bottom of my shoes. It is clean."
>
> A sulking child said that his friend did not like him. T3 asked the child how he/she decided this, and the child said: "Because he doesn't want to play with me; he doesn't give me the role I want."

It was observed that two teachers (T2 and T3) focused on "how relevant" the children's answers to the questions were. It was observed that T1, on the other hand, focused on "how they reached" the answers the children gave when they asked a question but did not pay attention to "how related" the answer was. This requires taking into account the possibility of children's possible correct answers. On the other hand, determining how related the answers are shows the children's engagement.

> (They arranged the chairs back to back in two groups.) T3 told the children, "You must be in equal order." He looked at the line and said, "The best thing is to call your helper aunt. Because we need one more person." Ç6 said, "Let it be C14". T3 replied, "C14, but he can't play this play very fast." This time, C7 said, "Teacher, then you will be the one." T3 said, "But I will do this (hits two sticks together). I will give a signal." C7 said to the teacher, "Without giving up, you will be at the back, you can also both play and perform."

Only one of the teachers (T1) emphasized the features to be considered by using children's answers. The teacher uses this method to increase the permanence and internalization of that feature through the child's response.

> T1 asked the children, "Which sounds did we learn before?" (She waited a while and continued.) "We learned the sound 'ah.' We learned the sound eee. We learned the sound ee when we said apple, October, September." One of the children said Ecrin. T1 confirmed the child, "Ecrin, yes. Ekrem, Eymen. We learned the sound ii. What were the ones that start with ii?" Another child shouted, "İpek." T1 said, "Yes, İpek starts with ii. We said human, climate, cow, needle, and thread all start with the sound ii."

Organizing the environment

Another category of teachers' classroom practices within the scope of shared activities is "organizing the environment". In this context, organizing the environment was coded as affective and physical. Organizing the environment as "affective" includes the arrangements that can be made for children to be free to explore new ways, participate, and focus.

It was observed that only T1 of the teachers allowed children to explore and experience.

> T1: "He also found such a solution. He could not turn it over and tore it. It can be possible. After all, he did it. The important thing was to complete the shell, to make it." Another child told T1, "I can do it like that (draws a circle in the air). I have another option."

It was observed that three of the teachers (T1, T3 and T4) enabled children to participate in cooperative play-based activities.

> T4 spread a large piece of kraft paper on the floor in her classroom and asked the children to

> work in groups. She said, "This will be our forest, and these are our trees," and showed the paper to the children. You can fold it as you like. We will take our crayons. Let this be a tree, for example (S4 folded the cut round), we will make the trunk. We fold our flowers. We will make the trunks with crayons. The children started to create their trees on kraft paper.

There are various class management strategies that teachers implement. It was observed that only T2 from teachers, once ignoring distractions, attracted the attention of children. Other teachers, instead of ignoring, have attracted attention more on that dispenser by warning the child. Ignoring distractions is a teacher behavior that supports children in terms of regulating behavior.

> While T2 was collecting the experimental materials, the children spoke very loudly, and she started singing the song, "Tap your hands, tap, tap, tap, tap, tap," and the children continued to sing the song.

It was observed that two teachers (T1 and T3) allowed children to communicate by talking, drawing, or other ways. It was observed that the other teachers generally wanted the children to work silently outside the free play time.

> In T1's class (among the children who drew pictures), C13 said, "What have you done here now?" C15 said, "I am going to build a house after I paint what I drew." C16, "Look, I colored it like you." C17 said to C16, "Go to the next section. Then do like this," and showed a drawing from her paper. At the same time, C13 explained his drawing to C15. They said, "These are clouds, and these are lightning."

The "physical" organization of the environment is the teacher's indirect involvement in the shared activity. These changes to the learning environment included positioning props, toys, and tables. Three teachers (T2, T3, and T5) were observed to prepare the environment for the children to create different types of shared activities.

> When T3 came to the classroom in the morning, she separated the tables and put materials on them for the children to work with. These materials were paints, legos, dough plays and toys, and papers of different geometric shapes. She organized many tracks for movement activities with materials such as rope, hula hoops, and cushions.

It was observed that one of the teachers (T3) changed and updated the learning environment occasionally. The classroom environments of T5 and T6 were too small to be open to physical change. On the other hand, although the other teachers' classrooms were quite large, it was not observed that they made a different arrangement regarding the learning environment.

> One day, T3 put the pots where they had previously planted lentils and broad beans on one of the tables for free play time, a book for completing a story called "Lamb with Henna" on another table, and matching cards and Legos on another table. Depending on whether the children used that section or not, she removed the work on the table that had not been visited for a while. She gave books to children who wanted to make second and third books in the spaces opened by their removal. She put Legos, plastic toys, and paints on the tables. On another day, T3 moved the tables to separate places and put dough, watercolors, and crayons. She also put books on a separate table for children who wanted to study math. On another day, she organized the tables

> in a U-shape to expand the classroom environment. She placed different materials on each table. She placed interlocking toys, Legos, plastic animals, number beads, and musical instruments.

Organizing others

Another important category in classroom practices is " organizing others." Organizing others is defined as the child's organization of another child's behavior or the teacher's organization of the child's behavior. Organizing others is also considered a prerequisite for self-regulation. It was observed that by enabling children to organize others, they took responsibility for the behavior they were expected to learn. Three teachers (T1, T2, and T3) allowed children to organize their peers' behavior. Teachers (T4, T5, and T6) who did not allow children to talk about the activity with their peers during an activity also did not allow children to organize their friends' behaviors.

> In T1's class, C18 reached out to take his friend's glue to glue his eyes on his snail during the activity. The other child who owned the glue tried to prevent him with his arm. C18 said, "Sharing is good." When the owner of the glue pulled his arm away, C18 took the glue.

> While tidying up the classroom, C14 (a child with special needs) was interested in the boxes in the cupboards. One of his friends came to him and said, "hiss hiss hiss" and took him by the hand and led him to another playground.

It was observed that only one of the teachers (T2) deliberately made mistakes and allowed the children to correct them. The other teachers occasionally emphasized the right thing to do. In this way, the teacher plays an active role in the learning process for children to gain the ability to organize their behavior. Allowing the child's friends and the teacher to organize their behavior was one of the methods used to realize that the rule was generalizable.

> T2 said, "Now, children, we took soap in our hands. We did not rub it like this. We opened the tap. There is soap in our hand. We put it in the water and pulled our hand out. Do you think our hand will get rid of germs like this?" and then waited for a response from the children. The children shouted, "No". Child 1 said, "Our hand stays foamy." Another child said, "There are chemicals in the foam." S2 said, "I wish it stays foamy. A little soap gets on it. He doesn't even get any soap on his hand. He puts the soap in the middle of his hand in the water and pulls it out. Do you think the hand will get rid of germs like this?" The children shouted "No!" together. T2 said, "Actually, your friend is right. There are chemicals in our hands. If we don't wash our hands very well..." T20 jumped in and interrupted the conversation by saying, "It gets dirty when we eat."

Only one of the teachers (T6) directly asked a child who did not follow the rules to identify his/her friends who made the same mistake. This is seen as a step to ensure that children develop awareness about identifying mistakes and thus develop self-regulation skills through regulating others.

> As the assistant teacher, T6 chose C19, who made noise and talked a lot. When he spoke again, she said, " C19, aren't you the teacher's assistant? Shouldn't the teacher's assistant be like a teacher? Shouldn't he be an example? Shouldn't you warn your friends when they do something wrong? Do you understand the duties of a teacher's assistant?" C19 listened to the

teacher and said, "I will be like a teacher."

Encouraging peer collaboration

Within the scope of the shared activity, the teacher's "encouraging peer collaboration" to scaffolding learning is among the classroom practices. It is beneficial for children to work and practice with their peers. In this way, children with different competency levels were encouraged to move forward together and engage in different activities.

It was observed that all teachers except T6 allowed children who could complete a task without help to work with children who could not. While T3 allowed children to work together the most, T6 supported children more individually.

> C1 had difficulty in coloring. T2 told him to ask his friend for help. His friend said: " C1, look, this is how I paint," and showed him how to do it. C1 started to paint by holding the paint like her friend (by taking the paint in her palm) and doing what she did.

> T5 called C21 and said, "Are you done?" C21 said, "It is finished, but I have paint left." She gave her answer. T5 said, "Can you help C22? Can you help C22 after C21 collects your paint?"

It was observed that T3, one of the teachers, ensured peer collaboration by assigning different roles/tasks to different children in the activity. T3 evaluates and changes the tasks taken by children according to their differences, especially in activity changes.

> While T3 gave children the task of pulling the ropes in the play and movement activity in her classroom, she gave C14 an easier task. Since C14 could not do it alone, he assigned another child to help him. (C14 gives additional information!)

Zone of the Proximal Development

According to the observation of the teacher's behaviors in the context of the child's "zone of the proximal development" theme, two categories were identified: providing support (scaffolding) and developing performance.

Providing Support (Scaffolding)

The first step in determining the child's potential developmental area is to determine the behaviors that the child can do independently. Teacher observation is considered important for this. It was observed that T1, T2, and T3 made detailed observations to determine the developmental level of the behaviors that each child can do independently. Through observations, it is possible to determine what children can do independently, how much help they need, and how they will progress.

> While writing the number 9, according to the needs of the children, T2 goes to them and makes some of them do nine by holding their hands, supports some of them by just standing next to them, and reminds them of the steps and makes them do it.

> While T3 asked the children to proceed by jumping from the hula hoops with both feet, he said to C6: "You wait, C7, you start. C6, you go behind him."

Teachers make observations to determine children's development. In their observations (T1, T2, T3, and T5), they realized to what extent the children faced difficulties in activities and tasks. Thus, they gave instructions that allowed children to develop individually.

> When a child was uncertain how to glue the circles on the paper, T1 approached him and corrected his paper. "Hold it like this. You should place the colors on the paper first and then start gluing. Okay?" and put one sample circle on the paper. "Which color do you want next to this one? Place it first. After placing it, glue it." watch the child do it.
>
> After the child struggled for a long time to find and color similar objects, T2 sat next to the child because it was time to go. "You find them and tell me, and I will do coloring?" he said. The child suddenly became active and started to show it to T2 faster and completed the activity in a short time.

Performance Development

During the observations, the teachers independently observed the children's potential and identified their difficulties. It was observed that T2 and T3 enabled the children to take tasks at different levels for their performance development. In this way, opportunities were provided for children to acquire skills with different difficulties in their learning processes.

> T2 said, " C4, you collect the whole round table. C5, you collect the place where you work and put the scissors."
>
> When the children went to their plays, T3 put an empty basket and another box with toys side by side. She showed the baskets to C14. "Can you put these in it?" she asked him. C14 said, "I am me," and hit his chest with his hand in a satisfied way.

Most teachers (T1, T2, T3, and T5) regularly observed children's behaviors that they could do with adult support. It was determined how high children's developmental progress can be when they receive support. As the adult provided step-by-step support, children's development and learning increased. In this way, the individuality of each child is accepted by the teacher.

> T1 said, "Now, everyone should stick their CD to the snail's shell." C13, addressing Ö1, asked, "Is this the right place?" while turning the CD to show both sides. T1 replied, "Just as you left it." and moved towards the child. When he saw other children also confused, he took one child's CD in his hand and said, "The shiny side goes up." Then he pointed to the matte side and said, "Put the glue here and stick your CD. Despite the explanation, he went to the children who couldn't do it. Pointing and showing, he said, "Put your glue here," and handed it to them, then said, "Stick it."
>
> "While working on rhythm exercises with the T3 children, they adjusted themselves to the child's performance, providing verbal instructions to some, demonstrating on their own sticks to others, trying multiple times with some, and starting over with others."
>
> (In the butterfly crafting activity) C21 called out, "Teacher, I can't make the wings." T5 responded, "C21, you can make them by cutting what you have in a rectangular shape. Cut two pieces."

> C21 struggled for a while and managed to cut one wing. C5 was observing C21 all the while. "C21, look, you've cut it. I told you that you can do it. Kids, you can do it willingly. Now, go ahead and cut the other wing," T5 encouraged. C21 struggled for a while, then went to Ö5 and extended the wing, saying, "I couldn't do it." T5 replied, "But you did cut one wing." C5 looked at C21, and after making eye contact, said, "Alright, let's stick them together."

Play

The theme of "play" was analyzed under four categories: symbolic function, facilitation, development, and enrichment.

Symbolic Function

All teachers allow children to play "pretend plays" in their classrooms. They are aware that these plays will encourage productivity in children's imagination. Free play time, in particular, was observed to be the most appropriate time for this. In this play, children used symbolic representations, assumed different roles, and built imaginary scenarios.

> T6 took the children to the garden. (Part of the garden is a sandbox, and part is a toy area.) The children scattered to play in the area they wanted. The teacher went to the children and looked at them. When T6 came to them, one of the children said, "We are making a cake. And tea for you." and handed the cup filled with sand. T6 took it in his hand, brought it to her mouth, and said, "Mmm, thank you. Don't you have any for the other teachers (interns)?" The child ran to his friends, made a cake and talked to them. Those children also took a cup and gave it to the teachers next to T6.

> When T6 took the children out to the garden, there were some children who chose to play in the playground or with the soil. One of the children playing with the soil said, "Teacher, we hid treasure (rocks) inside this (sand hill)," as they pointed to the sandy area they had created with their friends.

Facilitation

Teachers' asking children's plans about the play before starting the play and including more small group activities are deliberate behaviors that involve "facilitating" the play for them.

It was observed that T2, T3, and T5 asked the children what they would play before the play started; in this way, they helped the children plan their own plays. It was determined that when children made a plan before they started to play, they focused on that fiction, thought, planned together, and were willing to solve problems.

> T5 said, "Come on, let's play sitting down for a bit (the classroom is very small, and the children had started to climb on the table). Come on. (The children came to the carpet.) What do you want to do or play while sitting? The child quietly said, "Hand in hand xxx,' so the name of the game wasn't understood. T5 asked, "What is that?" (The child demonstrated by hitting the ground.) T5 replied, "There might be something on the table too." Another child said, "Let's play." T5 asked, "What? What have you decided to play?" The children began to turn their hands. T5 said, "Okay, go ahead and start." (and left the children.) The children played rock, paper, scissors."

It was observed that T2 and T3 used small group activities for teaching basic academic skills. Teachers determined how much all children in the small group learned and how much help they needed and intervened accordingly.

> T2 called three children to play sudoku on the board during free play time. One child was confused about the numbers after 3. T2 made this child cooperate with the other children.

1			
	3		2
			4
3			

> "What should come here?" Cx Hasan said 4, and repeated 4, 4. T2 said, "Look, there are 4 here. (The child wrote under 1.) "Barış, you find out what should come here." Barış said to himself in a low voice, "1 will come here". T2 said, "There are 2, 3 and 4. Write what is left to come." BarışCx wrote 1. (A three-person activity)

Development

Children may need scaffolding for the development of their play. The planning and participation of parents in the classroom is very important for them. In addition, it can be said that children's ability to establish and conduct plays with their friends and their knowledge of how to resolve conflicts during the play are also in the category of play development.

Teachers included family participation activities to ensure the continuity of learning. For this purpose, one of the parents is invited to the class. Depending on their preferences, they either carry out an activity in the classroom with the children or present an activity they had previously done with their child at home. In this way, it was observed that three of the teachers (T2, T5, and T6) cooperated with their parents. The other teachers (T1, T3, and T4) did not cooperate with parents inside or outside the classroom.

> In T5's class, the mother brought cloth bags for the children to paint. For Mother's Day, each child was to paint and decorate these cloth bags and present them to their mothers. The children made decorations in various shapes on the cloth bags with potato printing. During the activity, T5 and the mother supported the children.

> T6 asked the children to prepare a storybook with their parents within parental cooperation. The children created a story by drawing pictures for their own story, cutting some pictures from magazines or newspapers, and pasting them into the book. The mother also wrote down her story. T6 said, "We will read the storybook your friend prepared with her mother." They read the story in the classroom.

It was observed that all four teachers (except T5 and T6) guided children in different ways to solve conflicts among their peers appropriately. T1 and T3 supported children by reminding them how to express their problems and what to do in the face of problems. It was observed that T2 only used verbal warning and actually warned the children not to escalate the situation rather than guidance; T4, in addition to her guidance, sometimes assigned the dominant child who had a problem or called him/her and suggested another solution.

> T4: "What happened?" she asked. The child showed his friends sadly. ???? T4, "Then talk with C23, but not always what you want." C23 said, "It is always what C22 says anyway. He wanted a picture. We made a picture." C22, "No, we did it according to you." T4, "What will you decide then? Let it be what you say and what he says." C24, "Something came to my mind: let's do it like this, let's take turns. Let it be for all of us. Once you, once me, once you. Let's all take turns."

Enrichment

Another category of the play theme is "enrichment." The enrichment category includes children's playtime, appropriate use of materials and toys, teacher intervention in play, and guidance to ideas that enrich the play's content.

All teachers were interested in children's ways of expressing themselves and stated that play is a product of children's imagination. Although they allowed the children to play for 40-60 minutes without interruption, it was observed that T3 and T4 did not direct the children to another activity before the end of their play.

> T1 called out to the class by shouting, "Yes, Little Geniuses." The children responded to T1 by saying, "It's time to gather." T1 said, "Yes, it is time to gather. Let's go to breakfast. You were playing very well, but sorry, it is breakfast time. After that, we have studies. I can give you time if we have time after our studies. But it's over now. Let's get ready."

> Two children were playing side by side, making a gun out of Legos and making "click, click, click" sounds. T3 watched the children for a while and said, "After you use it, you turn it into something else, okay?"

> [While the class was gathering, she separated the table of the children who did not finish the puzzle and gave time for two children to finish. When the class gathered, other children and T4 watched the puzzle makers].

All teachers ensured their classrooms were equipped with paints, materials, and toys appropriate for children's development. There are also toys with multiple functions in the classrooms.

> (After reading the story) "Now I say if I distribute these pages to you. They are immediately on the tables. In 5 minutes, in a short time, you can cut these lines and make yourselves a rabbit head. You can be rabbits. I will be the wolf. Would you like us to act this out?" "Yes!" (some children went to the tables, hugged the teacher, and passed.) [T3 had materials such as hula hoops, cushions, and rope to make the track in play and movement activities.]

> [In the dance of the fairies and the bees with belly, T3 told the girls to give tulles and move them slowly, and the boys to take a cushion put them in their clothes, and make a belly for themselves].

Most of the teachers leave the children alone in their plays. It was observed that only T3 made attempts for children to gain experience with themes that would enrich their plays.

> T3 called the other children in the classroom and asked them some questions.
>
> T3 said, " C7 made a hippopotamus from the squares here. Anyone who wants to look can

> come. Where do hippos live?"
>
> C7, "In water," T3, "Well then, do you want to draw water for her?" C7 sat at the table and took paint and paper. She started to draw. T3, "Does this hippopotamus travel alone or have friends?" C7, "It has friends." S3, "Then can you draw them too?

It was observed that only T3 of the teachers wanted the children to be taught "how to do" the activity and wanted them to explain "why" they were doing the activity.

> Children who wanted to work at a single table were gathered. T3 went to them and supported them occasionally about how they should work. T3 showed how to work on the activities in the book by going to C24. T3 said, "Count the stars in the flying balloon. Then, write them on the clouds next to it. How many are there here?" C24 answered by saying, "2". T3, "OK, write it down."
>
> T3 asked the child doing bookwork: "What does he want you to do here, and why?"

Conclusion and Discussion

This study determined how the teacher's classroom practices are reflected in the learning environment in the context of Vygotsky's cultural-historical theory. In the USA, E. Bodrova and D. J. Leong prepared a curriculum called Mind's Tools by transferring Vygotsky's theory to the practice field and working on it. In this way, it has started to think about how to apply the Russian-based theory to the Western curriculum. In line with this study, all these practices were evaluated, and a teacher observation form was created by the researchers. Teachers' classroom behavior processes were examined under five themes with the observations made, and different categories were included under each theme. The themes were analyzed as follows: In the theme of "use of language", meaning development (verbal expressions, verbal cues, and written language), self-directed speech, and social speech. In the theme of "use of mediators," the function of mediators, mediators in behaviors, and mediators as supporters. In the "shared activity" theme, the themes were analyzed as the role of the teacher (guiding, increasing interaction and dialogue), organizing the environment (affective and physical), organizing others, and encouraging peer collaboration; in the "zone of the proximal development" theme, support, performance development; in the "play" theme, symbolic function, facilitation, development, enrichment.

Children's development is shaped by the environmental and cultural context resulting from the classroom experiences, activities, and interactions provided to them. The quality of teacher-child interactions in preschool classrooms significantly affects children's language development (Cunningham et al., 2020; Veraksa et al., 2019). As a result of the analysis of the observations made in the context of the teacher's "Use of language" theme, it is necessary to ensure meaning development first. Meaning development includes attracting children's attention with verbal instructions, acting with them by giving verbal clues, and supporting children to generate their questions and answers by giving as many clues as possible. Von Suchodoletz et al. (2014)

emphasizes that teachers should encourage children's problem-solving efforts concerning their learning processes rather than giving general praise or outcome-oriented feedback. In addition, teachers' language sensitivity that facilitates communication leads to a quantitative increase in children's vocabulary (Justice et al., 2018). Teachers' asking questions and giving clues are considered as positive expression categories in classroom management (Akgün, Yarar ve Dinçer, 2011). In order to support children's active participation in the classroom, teachers should ask open-ended questions and guide them through interactive dialogues (Huang et al., 2019). Teachers' strategies to increase the frequency of children's conversations in the classroom show that they involve children in more conversations and that child-initiated conversations increase child engagement (Bradley & Reinking, 2011; Cabell et al., 2015). More experienced teachers' interactive use of language in different environments, such as large groups, circle time, and centers in the classroom environment, and giving clearer instructions are effective in supporting children's language development (Phillips et al., 2018).

In the teacher observations, it was observed that the teacher's verbal expression of his/her behaviors served as a model for the children and encouraged them. In fact, this has a similar relationship with engaging in self-directed talk. It was observed that teachers who exhibited self-talk behavior also allowed children to talk about the activity with their peers. These teachers were also observed to say out loud the strategies to follow when solving a problem. It was found that there was a positive relationship between self-talk and mind manipulation in older children.

In contrast, self-talk and beliefs were positively associated with younger children talking about the task (Iao et al., 2015). These findings suggest that through self-talk, language can regulate social cognitive processing. It has been stated that children who begin to internalize self-directed speech also develop self-regulation skills (Bayhan ve Saranlı, 2010; Bråten, 1991), have better social skills, and show fewer behavioral problems (Winsler et al., 2003). This means preparing the environment for a positive classroom climate.

Vygotsky's approach to mediators explains how children's cognitive processes are shaped. Mediators support the development of independent thinking in children and facilitate problem-solving skills (Kozulin & Presseisen, 1995; Linask, 2019). Thus, it enables them to acquire high-level mental functioning (Gillespie & Zittoun, 2010; Veraksa & Veraksa, 2018). In line with the research results, teachers try to teach the function and correct use of an intermediary to support children's thinking processes. Bomer (2003) stated that mediators are valid in a particular discourse and context, temporarily visible, and gradually transformed through internalization. It was observed that the participants used mediators only in activity transitions through music and in following daily routines.

The role of the teacher affects children's classroom behavior (Ünlü ve Tunç Pekkan, 2019). Rojas and Abenavoli (2021) state in their study that the quality of teacher-child interaction in preschool classrooms increases children's participation in the classroom.

It was concluded that when the teacher is sensitive and supportive towards children in the classroom and when the teacher approaches the child's perspective, children's participation is strong (Emilson & Folkesson, 2006). Sheridan et al. (2014) stated that teachers' competencies in organizing to create good conditions for children's learning varied across preschools, and this was related to the teacher's approach. Within the "shared activity" theme, it can be said that teachers' role of guiding children and increasing interaction and dialog with them is directly related to increasing children's participation. Shared thinking is replaced by collective interactions in which the teacher relinquishes control over the activity, leaving children to develop their ideas with their peers (Papandreou & Yiallouros, 2020). In their study, Ortega et al. (2009) reported increased children's joint play with their friends when the teacher assumed an observer role. As a result of the observations, it was observed that teachers guided children to participate in cooperative play with their peers, thus giving children the opportunity to explore and experience. In this respect, the spatial organization of the classroom environment can be updated from time to time to create different types of shared activities.

In a preschool classroom's busy, active environment and as a single teacher, it can be difficult to observe individual children's behavior patterns throughout the activity. Nevertheless, to ensure children's individual development, the relationship between learning and development gains importance through a process of co-construction. It has been shown that a positive relationship exists between teachers and children's interactions as scaffolders (Smidt & Embacher, 2020). Teachers' detailed observations to determine the child's developmental level, noticing the degree to which children face difficulties in activities and tasks and providing assistance, observing what they can do with adult scaffolding and what they can do alone while providing assistance, enabling children to take on tasks at different levels in activities, and being sensitive to their reactions to all this scaffolding and assistance helped them to maximize their zone of the proximal developments. Breive (2020) states that it is important for the teacher to trust children's ability to take responsibility to co-construct the zone of the proximal development.

Another theme, "play", provides an important context for children's learning. In play, the child engages first with himself and then with others, and this gradual process enables him to interact with his environment. Child engagement is found to increase more in free play than in other types of play (Åström et al., 2020). All of the teachers gave the opportunity to play "pretend plays." During this time, the children themselves decided which plays to play. It is stated that when children's choices are active, they progress in their cognitive flexibility (Ansari & Purtell, 2017). It has been revealed that to maintain children's play, teachers only make conversations to continue the play themes without getting involved in the play (Keleş et al., 2018). It was observed that while children were playing, teachers were usually busy with various tasks and left the children alone. They mostly talked to a single child and had instantaneous interactions (Åström et al., 2020). In this study, all teachers need to be supported in ensuring that teachers gain experience with themes that will enrich children's play and model for

children how these themes can be handled together. Cabell et al. (2013) observed that teachers interacted more with children in large groups and free time settings than during meals and routine time, modeling language use and giving feedback to children during conversations. The least effective instructional interactions occurred when moving from centers to large groups. This study observed that teachers were more supportive of play in small groups and included small group activities to provide "facilitation" for children.

This study attempts to understand teachers' classroom practices in the context of Vygotsky's cultural-historical theory. It is seen that teachers who actively adopt the use of language also show this interaction in other areas. Although some teachers had practices about the function of mediators, it was observed that mediators were not used sufficiently in the classroom regarding behaviors and support. The shared activity and play titles were parallel practices among themselves. In fact, teachers need guidance on what they need to do other than facilitation to be aware of the impact of play on children's development. It has been observed that there is a need for a platform where informative and theory-based practices can be shared and discussed, especially in the themes of organizing others and peer cooperation, symbolic function, support, and enrichment. In future studies, theoretical information can be provided to teachers, and the transfer processes to practices can be re-examined. In fact, by developing cooperation between teachers, they can be provided to guide each other in terms of classroom practices to support their zone of the proximal development. In addition, although the study was conducted with intensive observations and recording, there may be some data loss since many themes were tried to be interpreted simultaneously. For this reason, the themes can be handled separately for future studies.

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Genişletilmiş Türkçe Özet

Öğrenme sürecinin etkili bir şekilde sürdürülmesi öğretmenin çocuklarla etkileşim halinde olmasına bağlıdır. Bu etkileşim sürecinde öğretmenin çocukların öğrenmelerine rehberlik ederken kolaylaştırıcı bir rol oynaması beklenmektedir. ABD'de E. Bodrova ve D. J. Leong tarafından Vygotsky'nin kuramının uygulama alanına aktarılması ve üzerinde çalışmaları ile Zihnin Araçları adında bir müfredat hazırlanmıştır. Böylelikle Rus temelli olarak ortaya atılan kuramın batılı müfredatlarda nasıl uygulanılacağı üzerine düşünülmeye başlanmıştır.

Bu araştırmada öğretmenlerin sınıf içi uygulamalarının Vygotsky'nin kültürel-tarihsel kuramı bağlamında öğrenme ortamına nasıl yansıdığını belirlemeye odaklanılmıştır. Çalışma nitel araştırma modellerinden durum çalışması ile desenlenmiştir. Araştırmanın veri setini oluşturan altı öğretmenin tümü, aynı okul öncesi eğitim kurumunda görev yapmaktadır. Öğretmenlerin her biri, katılımcı olmayan gözlemci tekniği ile okulda bulundukları yarım günlük süre boyunca beşer gün gözlemlenmiştir. Gözlemler araştırmacılar tarafından hazırlanmış olan "Öğretmen Gözlem Formu"na göre takip edilmiştir. Gözlemlerin çözümlenmesinde içerik analizi kullanılmıştır.

Öğretmenlerin sınıf içi davranış süreçleri yapılan gözlemlerle birlikte beş tema altında incelenmiş, her tema altında farklı kategoriler yer almıştır. "Dilin kullanımı" teması incelendiğinde anlam gelişimi (sözel ifadeler, sözel ipuçları ve yazılı dil), kendine yönelik konuşma ve sosyal konuşma; "aracıların kullanımı" temasında aracıların işlevi, davranışlarda aracılar, destekleyici olarak aracılar; "paylaşılan etkinlik" temasında öğretmenin rolü (rehberlik etme, etkileşim ve diyoloğu artırmak), ortamın düzenlenmesi (duyuşsal ve fiziksel), diğerlerini düzenleme, akran iş birliğini teşvik etme; "potansiyel gelişim alanı" temasında destek verme, performans geliştirme; "oyun" temasında sembolik işlev, kolaylaştırma, geliştirme, zenginleştirme olarak temalar çözümlenmiştir.

Sonuç olarak, öğretmenlerin Vygotsky'nin kültürel-tarihsel kuramına yönelik teori ve uygulama açısından bilgilendirilmeleri gerektiği ve teori alt yapısında pratiklerin paylaşılmasına ihtiyaçları bulunduğu sonucuna ulaşılmıştır. Yapılan öğretmen gözlemlerinde öğretmenin kendi davranışlarını sözel olarak ifade etmesinin çocuklar için model oluşturduğu ve onları teşvik ettiği gözlemlenmiştir. Bunun aslında kendine yönelik konuşma gerçekleştirmeyle de benzer bir ilişkisi vardır. Kendine yönelik konuşma davranışı sergileyen öğretmenlerin, çocukların akranları ile etkinlik hakkında konuşmalarına da izin verdikleri görülmüştür. Bu öğretmenlerin aynı zamanda bir problemi çözerken takip edilmesi gereken stratejileri sesli bir şekilde söyledikleri de gözlemlenmiştir. Dilin kullanımı'nı aktif şekilde benimseyen öğretmenlerin diğer alanlarda da bu etkileşimi gösterdiği görülmektedir. Bazı öğretmenlerin aracıların işlevi hakkında uygulamaları bulunsa da davranışlarda ve destekleyici olarak aracıların sınıf içinde yeterince kullanılamadığı gözlemlenmiştir.

Paylaşılan etkinlik ve oyun başlıkları kendi arasında paralel uygulamalar olmuştur. Aslında öğretmenlerin oyunun çocukların gelişimleri üzerindeki etkisinin farkında olmaları için kolaylaştırma dışında yapmaları gerekenler hakkında rehberliğe

ihtiyaçları vardır. En az etkili öğretimsel etkileşimler merkezlerden büyük gruba geçerken gerçekleşmiştir. Bu çalışmada öğretmenlerin küçük gruplardaki oyunları daha çok desteklediği, çocuklarda "kolaylaştırma" sağlamak için küçük grup etkinliklerine yer verdiği gözlemlenmiştir. Öğretmenlerin çocukların oyunlarını zenginleştirecek temalarla deneyim kazanmalarının sağlanması ve bu temaların birlikte nasıl ele alınabileceği konusunda çocuklara model olmaları konusunda tüm öğretmenler desteklenmelidir. Gözlemler sonucunda öğretmenlerin, çocukları akranları ile birlikte iş birlikçi oyunlara katılmalarına rehberlik ederek bu yolla çocukların araştırıp deneyimlemelerine fırsat verdikleri görülmüştür. Bu açıdan sınıf ortamının mekânsal düzenlemesi zaman zaman güncellenerek farklı türdeki paylaşılan etkinliklerin oluşturulmasına zemin hazırlamaktadır. Öğretmenler özellikle diğerlerini düzenleme ve akran iş birliği ile sembolik işlev, destekleme ve zenginleştirme temalarında bilgilendirici ve teori alt yapısında uygulamaların paylaşılarak tartışılacağı bir platforma gereksinim duyulduğu gözlemlenmiştir.

Yapılacak olan sonraki çalışmalarda öğretmenlere kuramsal bilgilendirme yapılarak, pratiklere aktarım süreçleri tekrar incelenebilir. Hatta öğretmenler arasında bir iş birliği geliştirilerek potansiyel gelişim alanlarını destekleyecek şekilde sınıf içi uygulamaları noktasında birbirlerine rehberlik etmeleri sağlanabilir. Ek olarak çalışma yoğun gözlemlerle ve kayıt altında gerçekleştirilmiş olmasına rağmen aynı anda pek çok temanın bir arada yorumlanmaya çalışılması nedeniyle bazı veri kayıpları olabilir. Bu nedenle daha sonraki çalışmalar için temaların ayrı ayrı ele alınması sağlanabilir.

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