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# Views, Knowledge, and Practices of Early Childhood Educators: Sociocultural Theory's Practicability<sup>1</sup>

# Erken Çocukluk Eğitimcilerinin Sosyo-Kültürel Teori'nin Uygulanabilirliğine İlişkin Görüş, Bilgi ve Uygulamaları

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#### **Abstract**

Vygotsky's Sociocultural Theory is a well-known theory that focuses on the cognitive development by combining it with a social perspective. In the literature, Sociocultural Theory is seen as an alternative to the traditional theories of cognitive development in early childhood education. Teachers' perceptions of the theory may be important in the children's learning process. The current study aims to investigate the views, knowledge, and self-reported practices of early childhood educators regarding the practicability of Vygotsky's Sociocultural theory. Phenomenological research design, as a qualitative research method, is applied. The data is collected through semi-structured interviews with early childhood educators who worked in private kindergartens in Ankara, and convenience sampling is used to reach the participants. Two researchers analyzed the data with the thematic analysis method. The findings show that although participants used some of the implications of the theory, they do not have explicit information about the implications, especially about the scaffolding and peer learning. It is recommended that more support and training regarding the theory, especially peer learning and scaffolding, should be offered to the in-service teachers.

Keywords: Sociocultural Theory, Early Childhood Educators, Vygotsky, Teacher views

# Özet

Vygotsky'nin sosyo-kültürel teorisi, çocukların bilişsel gelişimlerine ve toplumu önemli bir bileşen alarak öğrenme sürecine odaklanan önemli bir teoridir. Alan yazında, sosyo-kültürel teorinin, erken çocukluk eğitiminde eleştirilen geleneksel bilişsel teorilere bir alternatif sunduğu belirtilmektedir. Öğrenme sürecinde öğretmenin teoriyi algılama biçimi önem taşımaktadır. Çalışma, erken çocukluk eğitimcilerinin Vygotsky'nin sosyo-kültürel teorisine ilişkin görüşlerini, bilgilerini ve öz raporlu uygulamaları araştırmayı amaçlamaktadır. Nitel araştırma yöntemlerinden fenomonolojik araştırma türünü benimseyen bu araştırmada, kolay ulaşılabilir durum örneklemesi yöntemi ile Ankara'da özel anaokullarında görev alan okul öncesi öğretmenlerinden yarı yapılandırılmış görüşme ile veriler toplanmıştır. Veriler, iki araştırmacı tarafından tematik analiz kurallarına uygun olarak kodlanmıştır. Bulgulara göre, öğretmenlerin teorinin bazı uygulamalarını gerçekleştirmelerine rağmen, çoğunun uygulamaların içeriği, özellikle de iskele kurma ve akran öğrenmesi hakkında açık bilgiye

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sahip olmadıklarını ortaya koymuştur. Bulgular ışığında, öğretmenlere akran öğrenmesi ve iskele kurma konusunda daha fazla destek sunulabileceği önerilmiştir.

Anahtar Kelimeler: Sosyo-Kültürel Teori, Erken Çocukluk Eğitimcileri, Vygotsky, Öğretmen görüşleri

#### 1. Introduction

There are many theories about how cognitive development and learning processes are formed/enforced in children, and each of these theories analyzes this phenomenon from a different perspective. Vygotsky is one of the theorists known for his studies on the cognitive development of children with his "Sociocultural Theory". The theory has three main features: giving place to genetic factors, perceiving social life as the source of mental functioning, and the significance of the signs and the tools in the social and psychological processes (Wertsch, 1990). Despite Vygotsky giving a central role to social history in the process of his study, he still gave a part to genetic backgrounds (Wertsch, 1990). In other words, different factors create Vygotsky's Sociocultural theory such as genetic factors and biological growth. However, according to Vygotsky (1978), "Vygotskian psychology...stated that the human mind is constructed through a subject's interactions with the world and is an attribute of the relationship between subject and object" (as cited in Verenikina, 2010, p. 17). As a result, it can be said that society and history are important components of Sociocultural theory.

In terms of the importance of society in the mental functioning of the child, as Vygotsky (1981) mentioned, each learning experience occurs two times in a child's development. Firstly, it occurs in the inner psychology of the child, and the second one is intrapsychological among people (Vygotsky, 1981). In other words, the other individuals with the tools and signs are important factors for mediating mental functioning (Vygotsky, 1989). In addition, although children have individual learning processes, the information they can learn alone is limited. When they reach the first point, children gain knowledge through the social interaction they establish with adults and superior peers (Barnett, 2019). Also, in this process of mental functioning, the language development of the children also has great importance. According to Vygotsky (1978), while children are performing specific tasks, their speech provides them with attention and leading. As a result, after children start to speak, it can be expected that they will perform higher mental functioning (Vygotsky, 1978).

To sum up, according to Sociocultural theory, although it is accepted that children's individual cognitive development is still valid, their sources of knowledge are limited. So, through their interaction with adults and superior peers, children gain more knowledge and experience to support their cognitive development. In this process, children also use their language to reflect their ideas and develop their self-regulation.

As mentioned, the Sociocultural theory of Vygotsky focuses on children's learning process and explains important aspects of their learning. In addition to understanding children's learning with Sociocultural theory, it can also be used to develop children's learning process. Effective use of the Zone of Proximal Development (ZPD) and Scaffolding can improve children's learning processes while providing opportunities for cooperative learning. Zone of Proximal Development can be defined as the "actual development level," which is determined by the place that the child independently can achieve and the place that the child achieves with the help of an adult or superior peers (Vygotsky, 1978, as cited in Tudge, 1990). At this point, peer learning and adult guidance become some of the important aspects of the Zone of Proximal Development.

The Zone of Proximal Development can be used effectively in education. For instance, the results of the research conducted by Clapper (2015) show that when learners try to gain new

knowledge, they experience a disequilibrium process. usage of ZPD helps learners to develop accommodation and assimilation processes so that they can better work through the disequilibrium process (Clapper, 2015). Also, as Tudge (1990) mentioned, the Zone of Proximal Development can also be used in inclusive education. Vygotsky argued that to benefit from the Zone of Proximal Development, children with normal development and special needs can take education together, which can be beneficial for both parties, and both parties can be aware of the society they live in (Tudge, 1990).

# 1.1. Sociocultural Theory in Early Childhood Education

From the Western perspective, educating young minds happens by putting learning and developmental theories, which are about how they acquire an understanding and knowledge of their worlds, into practice (Edwards, 2005). Thus, it can be stated that theories related to learning and development are crucial in educating young children. Considering this point and the point mentioned above, which is that Vygotsky's theory is a learning theory with social and cultural aspects, it is inevitable to consider this theory in education. In terms of early childhood education particularly, according to Edwards (2003), "children participating in early childhood education are at a stage in their lives whereby the assumed knowledge acquisition abilities paired with content attainment in higher levels of education are still in the process of development" (p. 252) In other words, in early childhood periods, the ability of knowledge acquisition paired with the acquisition in higher levels is also an important part in education, and it is in the developmental process. Considering this, it can be suggested that theories of learning and development are crucial in educating young children during their early childhood years. Thus, as a theory of development and learning, the sociocultural theory has implications for the education of young minds. What can be unique about the sociocultural theory with its applications? As mentioned before, Vygotsky considered social and cultural aspects with genetic factors additionally. This can be seen in the educational implications of the theories and teachers' directions in using them, too. Edwards (2003) stated that "the sociocultural explanation of learning as a true alternative to the criticisms raised against the more traditional cognitive developmental explanations employed as an informant to the early childhood curriculum in the past" (p. 263). In other words, Vygotsky's sociocultural theory is applied in education as there is a need for this in supporting early childhood education curricula within the criticism of Piaget's theory. As a result, this can show us one aspect of why applying Vygotsky's theory of sociocultural learning is necessary.

In addition to this, as mentioned before, there are some concepts of Vygotsky's theory of sociocultural learning that support children in their development. These concepts can be applied to educational practices. Firstly, as mentioned, the Zone of Proximal Development is one concept of Vygotsky's sociocultural theory. This concept's significance can be seen in its educational implications. Whenever a teacher tries to teach subjects above the understanding level of the children in the classroom, the children will find themselves in a boring and unmotivated situation (Barnett, 2019). Thus, sociocultural theory should be a practical part of early childhood education in order to prevent a decrease in children's curiosity. Secondly, the scaffolding concept is playing a part in education. As Van Der Stuyf (2002) indicated in relation to scaffolding, the learner does not acquire the knowledge passively, but the learner learns the knowledge by building on past knowledge and creating new knowledge by teachers' lead ( Van Der Stufy, 2002). Thus, with scaffolding, the children become active learners in the process of acquisition of knowledge. In addition to these concepts, thirdly, Barnett (2019) mentioned the cooperative learning concept, which "involves students working with other students one on one" (p. 2). In other words, they become a team on a learning journey. Thus, it may

be said that sociocultural theory can contribute to learning by making it occur together in early childhood education.

Fourthly, focusing on the use of Vygotsky's theory in education from another concept of the sociocultural theory, which is private speech, its benefits in education are seen in experimental research. For example, although at the easy levels, private speech does not lead to a crucial development in performing, it has a huge effect at both intermediate and high difficulty levels (Montero & Dios, 2006). In other words, from Montero and Dios' research, it can be interpreted that levels above the children's understanding can be supported with private speech. As a result, considering the shift to cultural inclusion in developmental theories, Zone of Proximal development, scaffolding, cooperative learning, and private speech are useful concepts that can be used in educating young minds. Thus, as practitioners in educating young minds, the teacher's views on sociocultural theory and its practicability are importance factors in integrating Vygotsky's theory in education.

#### 1.2. Views of Early Childhood Educators

View is a concept framed around reflecting a thing, a mood, viewpoint, or idea that is fixed by other's understanding and judgement (Pajares, 1992). In another sources, the view is identified as "a way of thinking about or understanding something" (Mayor, 2011, p. 1953). There are studies indicating how teachers view and/or use the theory of Vygotsky (Jean-Smith, 2018; Keleş & Alisinanoğlu, 2014; Karaman et al., 2023; Pentimonti & Justice, 2010; Steele, 2001). In a study investigating sociocultural theory in mathematics teaching, it is revealed that although the teacher was not aware of her using sociocultural theory, she clearly identified the theory in the teaching process and her clarification of the reasons of using communication (Steele, 2001). In other words, it can be said that teachers can use sociocultural theory without initially knowing it. Also, in a study investigating usage of scaffolding among preschool teachers, the results revealed inconsistency between frequency of their actual usage of scaffolding and frequency of perceived usage in their practices (Pentimonti & Justice, 2010). Thus, this study recommended professional development for preschool teachers for better awareness regarding usage of scaffolding (Pentimonti & Justice, 2010). Similarly, Jean-Smith (2018), examined the early childhood teacher's beliefs and practices about the peer learning in New Zealand. The research result showed that majority of the participant teachers describe the peer learning as working together and making collaborations. On the other hand, very small number of the participants associate the peer learning with the learning from the more knowledgeable peers.

In Turkey context, a study conducted by Keleş and Alisinanoğlu (2014) examined the views of preschool teachers on the private speech. The study revealed that the statements used by the participants in terms of the private speech are moderately consistent with the Vygotsky's view of private speech (Keleş & Alisinanoğlu, 2014). Karaman and her colleagues (2023) also conducted a case study on preschool teacher's practices regarding Sociocultural theory in Turkey, they suggested that it is necessary to provide knowledge on theory and practice to teachers.

To sum up, teachers' knowledge and awareness regarding sociocultural theory and implications can also affect their usage of sociocultural theory in their teaching practices. Implementing the sociocultural theory of Vygotsky with knowing its implications and benefits may be more helpful and practical in children's development and learning in early childhood settings. Especially it became more important when considering examples of using the theory, such as the usage of creativity to support the private speech of children with easy instruments (Bayhan & Saranlı, 2010). To create support in education, like in this example, it is necessary to know the details of Vygotsky's sociocultural theory

and practical ways of it properly. This is where the teachers' knowledge and awareness regarding the theory may gain importance.

# 1.3. Purpose of the Study

The purpose of the current study is to investigate early childhood educators' views, knowledge, and self-reported practices of Vygotsky's sociocultural theory and the reflections of their views on their self-reported practices. By reaching these aims within the context of Turkey, the initial aim of the present study is to detect the understanding of early childhood educators of Vygotsky's theory and the ways that they use it in their practices. Also, the results of the study can show whether there is a misunderstanding of the theory or a lack of information about its practicability. Thus, in accordance with the results, early childhood educators can be supported with practical education or conferences about the Sociocultural Theory. As a result, the results of this study are most likely to assist teacher educators and policymakers in making informed decisions in supporting early childhood educators in using the theory of Vygotsky in practical terms by detecting the clues about early childhood educators' beliefs about practicability on Vygotsky's Sociocultural Theory. In the end, since the theory can have a great impact on young children's development, as mentioned in the literature (Montero & Dios, 2006; Van Der Stuyf, 2002; Vygotsky, 1978), it is aimed to understand the teachers' views about Sociocultural theory better and contribute to the usage of Sociocultural theory in early childhood education settings.

#### **Research Questions**

The current study wants to give answers to the research questions mentioned below.

- 1. What are the views and knowledge of early childhood educators on Vygotsky's Sociocultural theory?
- 2. What are the self-reported practices of early childhood educators on Vygotsky's Sociocultural Theory?
- 3. How are early childhood educators' views and knowledge of Vygotsky reflected in their self-reported practices?

#### 2. Method

# 2.1. Design

The current study adopts a phenomenological study design type of qualitative research. The Phenomenological study identifies the individuals' ideas, feelings, and views about a concept (Creswell, 2007). In line with the study's aim, which is to examine self-reported practices, views, and knowledge of teachers, considering the given definition, the phenomenological study design was found to be suitable for the nature of this study. In qualitative studies, interviews, recordings, or observations to gain insight into, observe, and recognize the phenomena (Creswell, 2014).

# 2.2. Participants

The sample of the research is early childhood education teachers who work in private schools in the Ankara region in Turkey. The researchers conducted convenience sampling in this study, which is based on the access and geography proximity allowing us to save time and effort (Creswell, 2007; Yıldırım & Şimşek, 2021). The participants have been described as P1 to P8 anonymously.

**Table 1.** Demographic Information of the Participants

Themes	Categories	The number of the participants
Sex	Female	n=7
	Male	n=1
Age	18-24	n=2
	25-34	n=5
	35-44	n=1
Degree Level	Associate degree	n=1
	Bachelor's degree	n=7
Type of the	Private preschool	n=7
school currently working	Public preschool	n=1
Age group of the	48-60 months	n=3
classroom currently working	60-72 months	n=5
Year of the	0-2 years	n=5
experience	3-5 years	n=2
	11 years and above	n=1

Their demographic knowledge, which is related to their age, sex, degree level, year of experience, type of school currently working, and the age group of the current classroom, is also gathered in addition to interview questions. The details about the demographic information can be seen above in Table 2. Seven female early childhood educators and one male early childhood educator participated in the current study. Participants' ages range from nineteen to forty. Also, their years of experience range from one to eighteen years. Lastly, 87.5% percent of participants have a bachelor's degree, while 12.5% percent have an associate degree.

# 2.3. Data Collection Tools

As a data collection instrument, a semi-structured interview protocol was used. The interview questions were developed by the two researchers following a review of the related literature. In the developing process, interview questions are formed by two researchers by considering the literature review and the aims of the study. Then, ideas from an advanced expert who is a doctoral student and research assistant at the Department of Elementary and Early Childhood Education are collected about the interview questions before implementing the pilot study. In detail, the expert suggested the researchers make questions more specific regarding the main focus areas of the study. Thus, by considering the aim of the study, new questions are added and categorized. Also, the researchers got feedback on the sentence structure to prevent giving directions to the respondents. Therefore, the sentences' structures are changed to make them less directed. After this, a pilot study with the final version of the interview questions is implemented. Following the pilot study, some additional changes,

such as changing sentences to more understandable ways for teachers, are made to finalize the interview questions.

In the semi-structured interview, there were four main parts. The first part included questions aimed at gaining demographic information about the participants. The second part of the questions was designed to reach the participants' views about Sociocultural theory. In the third part, questions related to the participant's knowledge of Sociocultural theory were asked to collect data. In the final part, a question about the participant's self-reported practice was arranged to reach the practice of the teachers regarding Sociocultural theory. Two researchers formed interview questions by considering the literature review and the aims of the study. Then, ideas from advanced experts are collected about the interview questions before implementing them. Some of the interview questions under each part can be seen in Table 2.

**Table 2.** Example Interview Ouestions

Table 2. Example Interview Questions		
Parts	Example of Questions	
Views About Sociocultural Theory	What do you think about the importance of engaging in group work and peer learning for children?	
	What do you think about supporting children in the learning process when they have difficulties on their own?	
Knowledge about Sociocultural Theory	<ul> <li>How does peer learning affect children's cognitive development?</li> <li>What type of support can be provided to the children in the learning processes that they have difficulties on their own?</li> </ul>	
Self-Reported Practice	<ul> <li>How do you use peer learning in your classroom and what impact do you think it has on children?</li> <li>Which methods do you use to support children when they have difficulties on their own in their learning process? Which of these do you think are more effective?</li> </ul>	

#### 2.4. Procedure

The data for this study was collected between February – March 2023. As mentioned, a semi-structured interview was used, which was developed by the researchers of this study by considering the literature review and the aims of the study. Within the current study, interviews are conducted

with early childhood educators depending on their available time and occasion. After reaching the teachers conveniently, the application of the interview with each participant lasted nearly 15-20 minutes.

# 2.5. Data Analysis

The researchers, two graduate students from the Elementary and Early Childhood Education Department doing their Master's in the Middle East Technical University, Department of Early Childhood Education, analyzed all interviews separately. Intercoder agreement conducted. According to Creswell (2007), "... reliability here will be on the intercoder agreement based on the use of multiple coders to analyze to transcript data" (p. 210). In this process, the answers of the participants were coded based on certain concepts that are expressed in Sociocultural theory and literature. In the analysis process, the steps suggested by Creswell (2007) were used. Firstly, the researchers read the transcripts of the answers independently several times, and they coded. Secondly, they met and examined their codes, which led them to develop major codes. After that, they again independently coded the transcripts. Then, they get together to compare the codes and finalize the codes. The final version of the codes was used to create categories and evaluate the results (Creswell, 2007). Based on the existing categories, the intercoder agreement reliability was calculated as .91. As 575 Miles and Huberman (1994) claims, to provide intercoder reliability, the intercoder agreement should be closer to 80 % and can approach 90 % based on the size and range of the coding scheme.

#### 2.6. Ethics

For this research, ethical approval was received from a State University Human Research Ethics Committee on 27.01.2023.

# 3. Findings

Based on the research questions, the findings of the research are organized in the three main titles: Views About Sociocultural Theory, Knowledge about Sociocultural Theory, and Self-Reported Practices.

#### 3.1. Views About Sociocultural Theory

As mentioned before, view is a concept defined as reflecting some ideas, mood or a thing, which is fixed by other's understanding and judgement (Pajares, 1992). In another sources, the view is identified as "a way of thinking about or understanding something" (Mayor, 2011, p. 1953). In this study, the teachers' views about sociocultural theory are focused. The findings under the first title, Views About Sociocultural Theory, were presented in line with the categories indicated during coding. The codes were organized under three categories, which were the Benefits of Peer Learning, the Benefits of Teachers' Support in Challenging Tasks, and the Relationship Between Cognitive Development and Language Development. These categories are coded as it is mentioned with the according to number of the participants answers in Table 3 mentioned below.

**Table 3.** Views About Sociocultural Theory

Categories	Codes (number of the participants)	
Benefits of Peer Learning	Supporting learning (n=6)	
	Boosting socializing (n=2)	
	Reinforce curiosity (n=1)	
	Facilitate attention-giving (n=1)	
Benefits of Teachers' Support in Challenging	Zone of proximal development (n=3)	
Tasks	Individual learning (n=3)	
	Permanent learning (n=1)	
	Beneficial based on activity type (n=1)	
Relation Between Cognitive Development and	Complement each other (n=3)	
Language Development	Connected to each other (n=2)	
	Parallel to each other (n=1)	
	Usage of inner speech (n=1)	

#### 3.1.1. Benefits of Peer Learning

According to participants' answers to the question related to peer learning, all teachers believe that peer learning is beneficial in different ways. Thus, it can be said that the majority of teachers' views about peer learning are beneficial. One participant (P2) stated that,

"I think it is very important. Children learn a lot by observing and asking each other when chatting among themselves or as a group for an activity."

While six of them think that peer learning is beneficial in terms of supporting learning, two of them believe that peer learning is important for boosting socializing. Also, only one of them thinks that peer learning reinforces curiosity. In addition to this, only one of them (P5) believes that peer learning facilitates attention-giving, which is stated as mentioned below.

"Group work is a good learning instrument. Group psychology affects the group and helps to focus the attention of children who show adjustment problems in the group."

# 3.1.2. Benefits of Teachers' Support in Challenging Tasks

All of the participants view scaffolding as useful because they mentioned that they found it beneficial to support children in the areas where they are struggling. However, there are some differences in the parts that they found beneficial. Three of them mentioned that they found it beneficial in terms of the zone of proximal development. One participant (P4) mentioned,

"I think it is expected because developmentally, the child's adult support layers are to reveal the child's abilities to raise."

However, three of them also mentioned that they found it beneficial in terms of individual learning. On the contrary, a small number of participants (one teacher) clarify that they found it

beneficial based on activity type. Also, one of them (P1) states that supporting children in the areas that they struggle is beneficial for permanent learning as this participant stated,

"I think this is a normal process and I believe that this situation brings permanent learning."

# 3.1.3. Relation Between Cognitive Development and Language Development

When the teachers are asked about their views on the usage of language development activities and cognitive development activities together, almost all of them express that there is a connection between cognitive development and language development. Three of the teachers indicated their ideas on how cognitive development and language development complement each other. For example, one of the teachers (P2) mentioned:

"I believe that language development is an integral part of cognitive development. Languagerelated learning can be achieved from environmental factors, but structured cognitive activities are more effective in controlling learning."

In addition, two of the teachers express their ideas which see language development and cognitive development as connected to each other in a way. One of the teachers indicates (P4) that:

"Language development is one of the most basic cognitive skills. Learning and using a language is like a high-level decoding and coding skill."

Finally, while one of the teachers thinks that there is a parallel relationship between cognitive development and language development; one of the teachers (P7) directly mentions inner speech:

"According to Vygotsky, thought is related to language. The child expresses his thoughts with language and as he can explain it as in inner speech, his thoughts develop. In this respect, there is a positive relationship. As one increases, the other increases."

# 3.2. Knowledge about Sociocultural Theory

Knowledge is a term characterized around objectivity, probability, order and ability (Polanyi, 1998). Also, it is defined as the state in which an individual made a connection with reality cognitively (Zagzebski, 2017). Specifically, the teacher's knowledge consists of pedagogical and subject-related knowledge and abilities that the teacher has (Mesa & Leckrone, 2020). Thus, within this study, the teacher's knowledge about sociocultural theory represents their pedagogical and subject understanding regarding the Sociocultural Theory.

The codes were organized under three categories which were the benefits of Peer Learning, the Benefits of Teachers' Support in Challenging Tasks, and the Relationship Between Cognitive Development and Language Development.

**Table 4.** Knowledge About Sociocultural Theory

Categories	Codes (the number of the participants)
Peer Learning	Richer learning experience (n=7)
Ways of Teacher's Support in the Challenging Tasks	Scaffolding (n=3) Individual support (n=2) Demonstrating (n=2) Reinforcement (n=1)
Relation Between Cognitive Development and Language Development	Parallel to each other (n=3) Supporting each other (n=2) Connected to each other (n=1) Complement each other (n=1) Development of inner speech (n=1)

#### 3.2.1. Peer Learning

When participants' answers to the question related to knowledge about peer learning and how it is affected cognitive development, it is revealed that although most of the participants revealed connections between cognitive development and peer learning, most of them do not provide answers specifically related to Vygotsky's perspective in peer learning.

One of them gave irrelevant information to the question. Seven out of eight teachers stated that peer learning provides a richer learning experience. To illustrate, one of them (P7) stated that,

"Peer learning has a positive effect on cognitive development as children try to organize the information while telling each other something and to express it correctly."

Also, another one (P3) spoke about peer learning and cognitive development as follows.

"With each knowledge, they learn from each other, their knowledge level expands."

# 3.2.2. Ways of Teacher's Support in Challenging Tasks

To investigate teachers' knowledge level of scaffolding, participants are asked how they can provide support to children in challenging tasks. The participant's answers revealed ways for the teacher support to the challenging tasks. They expressed the teacher's support in different ways. Three of them mentioned scaffolding. For example, one of them (P7) satiated that,

"The teacher should be a guide where the child has difficulty in the construction of knowledge. Not the direct provider of the information. The questions that will enable the difficult thing to be looked at from different angles can be used in this support process."

In addition to this, individual support is mentioned by two of the teachers in this question. Demonstrating was also mentioned by two of the teachers. To illustrate, one (P5) stated,

"Support can be provided by showing and repeating one example and doing it together."

Only one teacher mentioned the teacher's support in the way of reinforcement. As a result, it can be said that in terms of the teacher's support to the children, the teachers did not have a high amount of knowledge about the scaffolding in terms of Vygotsky's view, rather they focused on the teacher's support ways.

# 3.2.3. Relation Between Cognitive Development and Language Development

Teachers' answers to the question, which is about the relationship between language development and cognitive development, are investigated by two researchers. It is concluded that all of the teachers have knowledge that is parallel to Vygotsky's ideas related to the issue. They mentioned that there is a connection between them. However, teachers' answers revealed that their knowledge about the relation between language and cognitive development is different. Three of the teachers claim that cognitive development and language development are parallel to each other. One of the teachers (P7) represents this by expressing that:

"These two areas are parallel and move together. The more advanced language development is, the more advanced cognitive development is."

In addition, three of the teachers represent their knowledge of cognitive development and language development to support each other. For instance, one of the teachers (P6) says:

"I think these two fields have a nurturing relationship with each other."

Finally, the three other teachers represent their ideas on the issue differently. One of them claims that these two developments are connected to each other, while one of the other teachers claims that they complement each other.

#### 3.3. Teacher's Self-Reported Practices

Practice is a mean to make theorical instruction, subject knowledge and education principles real (Dewey, 1904). Thus, in education field, practice may be shown as the act of knowledge, instruction and principles. In this study, teachers' self-reported practices are teachers' own given details about their actions regarding making knowledge real.

The codes were organized under three categories, which were the benefits of Peer Learning, the Benefits of Teachers' Support in Challenging Tasks, and the Relationship Between Cognitive Development and Language Development.

**Table 5.** Self-Reported Practice

Categories	Codes (number of the participants)
Usage of Peer Learning	Small group activities (n=3)
	Reinforce sharing (n=3)
	Activities related to creativity (n=1)
	Brainstorming method (n=1)
	Communication during free time(n=2)
Methods of Teacher's Support in the	Scaffolding (n=3)
Challenging Tasks	Demonstrating (n=1)
	Questioning (n=1)
	Feedback (n=1)
	Modelling (n=1)
	Parent involvement activities (n=1)
	Integrated activities (n=1)
	Reinforcement (n=1)
	Documentation(n=1)
	Individual learning (n=1)
Activity Processes Including Cognitive	Science activities (n=3)
Development and Language Development	Math activities (n=2)
Together	Literacy activities (n=1)
	Music activities (n=2)
	Assessment (n=1)
	Drama activities (n=1)
	Self-care activities (n=1)
	Language activities (n=1)

# 3.3.1. Usage of Peer Learning

The teachers' answers related to their practices in terms of peer learning are investigated. It concluded that three out of eight teachers concluded that they use peer learning in small group activities. For example, one of them (P5) stated that,

"Small group work, games where they act as a team, and pair work are the methods I use for peer learning. Here, I try to give children different tasks, to work in. complementary roles, and to keep in touch throughout the process."

In addition to this, three out of eight teachers mentioned their usage of peer learning in reinforcing sharing. To illustrate, one teacher (P4) mentioned,

"They all do their activities by sharing and talking and agreeing, using the same materials on a large paper."

One of the teachers stated peer learning's usage in activities related to creativity, while one out of eight teachers mentioned usage in the brainstorming method. The one answer (P1), which is related to the brainstorming method, is mentioned below.

"I frequently use small group activities, creativity actives, and brainstorming methods."

As a result, while seven teachers mentioned that they used peer learning in their practices in different ways as mentioned above in detail, one of them (P6) did not state a situation in which peer learning is used since the teacher gave this answer,

"It has positive effects."

Thus, the participant did not mention the way of the usage of peer learning.

# 3.3.2. Methods of Teacher's Support in the Challenging Tasks

To investigate the teachers' usage of the scaffolding, they asked about which techniques they use to support the children in challenging learning experiences. According to the answers of the participant teachers, they use a wide variety of techniques. At this point, only three of the teachers mentioned that they use scaffolding in challenging tasks. For instance, one of the teachers (P7) says:

"I use the scaffolding and the feedback mostly. However, I think the most effective method is scaffolding."

In addition to that, each of the other teachers represents different methods to support children in different tasks. These are demonstrating, questioning, feedback, modeling, parent involvement activities, integrated activities, reinforcement, documentation, and individual learning. At this point, one of the teachers (P3) represents his/her ideas on the usage of parent involvement in the challenging task as follows:

"I give plenty of space to instant opportunity learning in the classroom. With physical reinforcement and family participation activities, I motivate by making the activities that children have difficulty with individually and common."

In addition, the teacher (P4) who uses individual learning represents his/her ideas in this way:

"I am personally interested in the learning of children. For example, if a child has difficulty in simple addition, I try to choose a different learning method for him/her and I do the activities I choose with this child while the other children are at playtime."

As a result, it can be observed that the number of teachers who use the scaffolding is lower than half of the participant group.

#### 3.3.3. Activity Processes Including both Cognitive Development and Language Development

To examine the teacher's practices about integrating activities related to cognitive development and language development, they are asked whether they used it and examples from them if they use it. Most of the teachers (7 teachers) indicated that they use cognitive and language development together in different activity processes. These teachers mentioned their activity processes as follows. Three of them stated that they use cognitive development and language development together in science activities. For example, one of these (P1) participants mentioned,

"Yes, for example, while learning colors with cards or something, I do parallel activities with song and visual cognitive development."

Also, two of them mentioned their usage together within math activities with their answers to the question. On the contrary, two teachers out of eight teachers mentioned their usage as together within literacy activities. To illustrate, one of them (P8) stated that,

"I use it, for example, it is a very useful method for children to learn new words in the activity process and to use them in sentences in accordance with their meanings. Also, talking about words with similar roots supports the child in both areas."

In addition to these, each of the other teachers expresses that they use different types of activities to integrate cognitive development into language development. These are Literacy activities, assessment processes, drama activities, self-care activities, and language activities. One teacher (P5) who expresses he/she uses the literacy activities says that:

"I use it, for example, it is a very useful method for children to learn new words in the activity process and to use them in sentences in accordance with their meanings. Also, talking about words with similar roots supports the child in both areas."

In addition, one of the teachers mentioned that she/he (P6) used it during the assessment times:

"Yes, I'm using it. In general, at the end of each activity, there are assessment and presentation activities in which the children summarize the activity processes."

As a result, it can be concluded that almost all of the teachers (n=7) use cognitive development and language development together. In addition, it can be observed that teachers use different types of activities to include cognitive development and language development together such as science, math, literacy, and drama.

#### 4. Discussion

This research is aimed to investigate the early childhood education teachers' views, knowledge, and self-reported practices based on Vygotsky's Sociocultural Theory. So, these three categories are investigated in the specific codes which are formed based on the research results. In the following parts, the findings are discussed in the main categories, which are peer learning, scaffolding, and the relation between cognitive development and language development. In line with the research questions, the findings related to categories are discussed in terms of teacher's views, knowledge and self-reported practices.

In the research conducted in 2001, Steele mentioned that although the teacher did not know she was using Sociocultural theory, she performed some practices of the theory (Steele, 2001). In addition to supporting the argument, the current study also revealed that although the teachers perform some of the implications of the Sociocultural Theory, most of them do not have evident knowledge about the content of the practices, especially about peer learning and scaffolding. At the end, this lack of information about the theory leads teachers to use some of the practices in an argumentative way.

In terms of peer learning, in the literature, it is founded teachers' views on the peer learning generally regarded as working together rather than learning from superior peer (Jean-Smith, 2018). In line with the literature, the current study also found that although teachers participating in this study think peer learning is beneficial, they do not use it from Vygotsky's view. In detail, according to Vygotsky's Sociocultural theory, peer learning is based on learning from/with the superior peer. In other words, adult guidance or collaboration with more capable peers can lead children to deal with challenging situations and growth in their zone of proximal development (Vygotsky, 1978, as cited in Tudge, 1990). Based on the participant teacher's self-reported practices, they usually used peer

learning as small group activities or sharing during the activities. As a result, it can be said that the teacher's usage of peer learning is not in line with the implications of Sociocultural Theory.

In terms of scaffolding, In the current study, it is found that only three of eight teachers are knowledgeable about supporting children in their challenging tasks by using scaffolding and usage of scaffolding in their daily practices. Others mentioned different methods, such as reinforcement to the question related to the ways they supported children in the processes that they struggled with. This result also computable with the literature. The research conducted by Eshach and Dor-Ziderman (2011) indicated that although scaffolding is a great opportunity to support children's thinking in kindergarten settings, it is a vague term that currently has limited practical implications by early childhood teachers, and it is necessary to build a connection between theory and practice (Eshach & Dor-Zderman, 2011). In addition, the study conducted by Pentimonti and Justice (2010) suggested that the awareness of the preschool teachers regarding the usage of scaffolding should be increased with trainings. As it can be understood, the current study reaches similar results to these studies (Eshach & Dor-Zderman, 2011; Pentimonti & Justice, 2010), and it reveals that the teachers do not perform the scaffolding prevalently. As a result, related to our study and other literature findings, it can be said that teachers have limited knowledge about scaffolding, and the limited knowledge is also reflected to their practices. As Steele (2001), "students construct a more powerful way of thinking about mathematics through social interactions with a more knowledgeable person; in these episodes, it was their teacher" (p. 414). Thus, it is clear that in education, the support of teachers as more knowledgeable persons has an impact on their learning process. By considering this, it can be said that it is crucial to inform teachers about using scaffolding within Vygotsky's perspective.

When the teachers are asked about their views, knowledge, and self-reported practices based on the relation between language development and cognitive development, their answers show that in addition to knowing the relation between cognitive development and language development, they also reflected this knowledge into practice. According to "The Ministry of Education Early Childhood Education Curriculum" (2013), "the developmental program takes social and emotional, motor, cognitive, language developmental areas, and self-care abilities together with an integrative approach" (p. 18). As the teachers currently use this program in their practices, and it mentioned an integrative approach, the teachers' view, knowledge, and practice about using cognitive and language development in an integrative way can be connected with the national curriculum. Although the current study showed that teachers have knowledge regarding the relation between language and cognitive development, the study conducted by Keleş and Alisinanoğlu (2014) revealed that participants' views about private speech are moderately in line with Vygotsky's view. It can be said that while participant teachers demonstrated some level of knowledge regarding the relationship between language development and cognitive development, their lack of knowledge can also be observed in different aspects of this relation, such as private speech.

#### 5. Conclusion

Firstly, the presented study reported a lack of knowledge about scaffolding and using scaffolding in their teaching practices. Secondly, it is concluded that although they do not have a deep understanding of peer learning from Vygotsky's perspectives, they presented that they used peer learning in teaching practices. However, it is imperative to emphasize that the teachers' view on peer learning differs from the perspectives of Sociocultural theory. Lastly, in terms of cognitive and language development integrated activities' knowledge and usage, they reported that most of them have

enough knowledge and teaching practices. With the scope of these results, a conclusion can be made that although peer learning and scaffolding are important terms in early childhood education, the result shows that the teacher does not perform these effectively. Thus, as an implication, more support to the teachers about the usage of peer learning and scaffolding can be offered. Moreover, while the current study tries to investigate the teacher's views on Sociocultural Theory in a detailed way, it is also realized that the previous research generally focuses on the theory in a more general way. This situation makes it hard to understand the teacher's specific knowledge and views about the practices of Sociocultural Theory. Since it is necessary to have these results to support teachers about the theory, more research in the field of Sociocultural Theory is required.

#### 6. Limitations and Recommendations for Future Studies

The presented study has a few limitations. Firstly, the number of participants in the sample is eight participants, which can be considered as a limitation of sample size. It would be better if this study is conducted with a larger sample in future studies to reach better results. In addition, the ratio of males and females in the research is not equal since the sample includes one man and seven females. As a result, a larger sample with a more equal proportion in terms of sex can enhance the results. The study includes teachers from private preschools, but public preschool teachers can also be examined in future studies. Secondly, although the interview questions gathered data related to peer learning, scaffolding, and cognitive and language development in terms of investigating Vygotsky's theory, these categories can be enlarged to be more comprehensive. The data is collected from the current study with the semi-structured interview, with the hope that the participants would provide true answers in the process. Thus, the results are interpreted according to them. However, in future studies, the method of the research can be developed. Since utilizing the self-reported practices of the teachers is a limited method, additional methods can be used. For example, direct observation of the classroom and the learning experiences of the children or documentation analysis of learning activities can be used to investigate the practices of the teachers in future studies.

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# Geniş Özet

#### Giriş

Vygotsky, "Sosyo-kültürel" teori ile çocukların bilişsel gelişimi üzerine yaptığı çalışmalarla tanınan kuramcılardan biridir. Vygotsky'ye (1978) göre, "Vygotskian psikoloji ... insan zihninin, bir öznenin dünyayla etkileşimleri yoluyla inşa edildiğini ve özne ile nesne arasındaki ilişkinin bir niteliği olduğunu belirtmiştir" (aktaran Verenikina, 2010, s. 17). Dolayısıyla, toplumun ve tarihin teorinin önemli bileşenleri olduğu söylenebilir. Sosyo-kültürel teori, çocukların öğrenmesini anlamanın yanı sıra, çocukların öğrenme sürecini geliştirmek için de kullanılabilir. Öğrenmenin sosyo-kültürel açıklamasının, erken çocukluk eğitimde kullanılan bilişsel gelişimsel teorilere yapılan eleştirilere bir alternatif olarak sunulduğu belirtilmiştir (Edwards, 2003). Başka bir deyişle, Vygotsky'nin sosyo-kültürel teorisi eğitimde uygulanmaktadır çünkü Piaget'in teorisine yapılan eleştiriler kapsamında erken çocukluk müfredatının desteklenmesinde bu teoriye ihtiyaç vardır. Sonuç olarak, bu bize Vygotsky'nin sosyo-kültürel öğrenme teorisini uygulamanın neden önemli olduğunun bir yönünü gösterebilir. Uygulama süreci düşünüldüğünde ise öğretmenlerin teoriyi nasıl algıladıklarını gösteren çalışmalar önem kazanmaktadır. Alan yazında, öğretmenlerin Vygotsky'nin teorisini nasıl gördüklerini ve/veya kullandıklarını gösteren çalışmalar mevcuttur (Keleş ve Alisinanoğlu, 2014; Karaman vd., 2023; Pentimonti ve Justice, 2010; Steele, 2001; Jean-smith, 2018). Matematik öğretiminde sosyo-kültürel öğrenme teorisinin araştırıldığı bir çalışmada, öğretmenin sosyo-kültürel teoriyi kullandığının farkında olmamasına rağmen, öğretim sürecinde sosyo-kültürel teoriyi açıkça tanımladığı ve iletişimi kullanma nedenlerini açıkladığı ortaya çıkmıştır (Steele, 2001). Başka bir deyişle, öğretmenlerin sosyo-kültürel teoriyi bilmeden de kullanabilecekleri söylenebilir. Buna ek olarak, okul öncesi öğretmenleri arasında iskele kullanımının araştırıldığı bir çalışmada ise sonuçlar öğretmenlerin uygulamalarında iskeleyi gerçek kullanım sıklıkları ile algılanan kullanım sıklıkları arasında tutarsızlık olduğunu ortaya koymuştur (Pentimonti ve Justice, 2010). Bu sonuçtan yola çıkarak, bu çalışma okul öncesi öğretmenlerine iskele kullanımına ilişkin daha iyi farkındalık kazanmaları için sosyo-kültürel teori hakkında mesleki gelişim edinmelerini önermektedir (Pentimonti ve Justice, 2010). Benzer şekilde, Jean- Smith (2018) çalışmasında, Yeni Zelanda'daki erken çocukluk eğitimcilerinin akran öğrenmesine ilişkin inanç ve uygulamalarını incelemiştir. Araştırma sonucu, katılımcı öğretmenlerin çoğunluğunun akran öğrenmesini birlikte çalışma ve iş birliği yapma olarak tanımladığını göstermiştir. Öte yandan, katılımcıların çok az bir kısmının akran öğrenmesini daha bilgili akranlardan öğrenme ile ilişkilendirdiği ortaya çıkmıştır.

Türkiye bağlamında, Keleş ve Alisinanoğlu (2014) tarafından yürütülen bir çalışmada, okul öncesi öğretmenlerinin benmerkezci konuşmaya ilişkin görüşleri incelenmiştir. Çalışma, okul öncesi öğretmenlerinin benmerkezci konuşmaya ilişkin kullandıkları ifadelerin, Vygotsky'nin benmerkezci konuşma görüşü ile orta düzeyde tutarlı olduğunu ortaya koymuştur (Keleş ve Alisinanoğlu, 2014). Karaman ve arkadaşları (2023) da Türkiye'deki okul öncesi öğretmenlerinin sosyo-kültürel teori ile ilgili uygulamaları üzerine bir vaka çalışması yürütmüş, öğretmenlere teori ve uygulama hakkında bilgi verilmesinin gerekli olduğunu öne sürmüşlerdir.

Özetle, öğretmenlerin sosyo-kültürel teori ve çıkarımlarına ilişkin bilgi ve farkındalıkları, sosyo-kültürel teoriyi öğretim uygulamalarında kullanmalarını da etkileyebilir. Vygotsky'nin sosyo-kültürel teorisinin, sonuçlarını ve faydalarını bilerek uygulamak, erken çocukluk ortamlarında çocukların gelişiminde ve öğrenmesinde daha yararlı ve pratik olabilir. Özellikle, çocukların benmerkezci konuşmalarını desteklemek için yaratıcılığın kullanılması gibi teorinin kullanım örnekleri düşünüldüğünde daha da önemli hale gelmektedir (Bayhan ve Saranlı, 2010). Bu örnekte olduğu gibi, erken çocukluk eğitimi ortamlarında çocukları gelişimsel açıdan desteklemek için Vygotsky'nin sosyokültürel teorisinin detaylarını ve pratik yollarını doğru bilmek gerekir. Bu noktada öğretmenlerin sosyokültürel teoriye ilişkin bilgi ve farkındalıkları önem kazanabilir.

# Çalışmanın Amacı

Bu çalışmanın amacı, erken çocukluk eğitimcilerinin Vygotsky'nin sosyo-kültürel teorisine ilişkin görüşlerini, bilgilerini ve öz raporlu uygulamalarını ve görüşlerinin öz raporlu uygulamalarına yansımalarını araştırmaktır. Bu amaçlara Türkiye bağlamında ulaşarak, bu çalışmanın ilk amacı erken çocukluk eğitimcilerinin Vygotsky'nin teorisini nasıl anladıklarını ve uygulamalarında nasıl kullandıklarını tespit etmektir. Bu amaç ile birlikte, çalışmanın sonuçları, teorinin yanlış anlaşılıp anlaşılmadığını veya uygulanabilirliği hakkında bilgi eksikliği olup olmadığını gösterebilir. Dolayısıyla, sonuçlar doğrultusunda, erken çocukluk eğitimcileri sosyo-kültürel Teori hakkında uygulamalı eğitim veya konferanslarla desteklenebilir. Sonuç olarak, bu çalışmanın sonuçları, erken çocukluk eğitimcilerinin Vygotsky'nin sosyo-kültürel teorisinin uygulanabilirliğine ilişkin inançlarına dair ipuçlarını tespit ederek, erken çocukluk eğitimcilerinin Vygotsky'nin teorisini pratik anlamda kullanmalarını destekleme konusunda kararlar almalarında öğretmen eğitimcilerine ve politika yapıcılara yardımcı olabilir. Alanyazında da belirtildiği gibi (Montero ve Dios, 2006; Van Der Stuyf, 2002; Vygotsky, 1978) sosyo-kültürel teorinin çocukların gelişimi üzerinde büyük bir etkisi olabileceğinden, öğretmenlerin sosyo-kültürel teori hakkındaki görüşlerini daha iyi anlamak ve sosyo-kültürel teorinin erken çocukluk eğitimi ortamlarında kullanılmasına katkıda bulunmak amaçlanmıştır. Özetle, çalışmanın amacı, erken çocukluk eğitimcilerinin Vygotsky'nin sosyo-kültürel teorisine ilişkin görüşlerini, bilgilerini ve öz raporlu uygulamaları araştırmaktır. Çalışma aşağıdaki araştırma sorularına yanıt aramaktadır.

- 1. Erken çocukluk eğitimcilerinin Vygotsky'nin sosyo-kültürel teorisi hakkındaki görüşleri ve bilgileri nelerdir?
- 2. Erken çocukluk eğitimcilerinin Vygotsky'nin sosyo-kültürel teorisine ilişkin kendi bildirdikleri uygulamaları nelerdir?
- 3. Erken çocukluk eğitimcilerinin Vygotsky'nin sosyo-kültürel teorisi hakkındaki görüşleri ve bilgileri kendi bildirdikleri uygulamalara nasıl yansımaktadır?

# Yöntem

Bu çalışmada nitel araştırma türlerinden fenomenolojik çalışma deseni benimsenmiştir. Fenomenolojik çalışma, bireylerin bir kavram hakkındaki fikirlerini, duygularını ve görüşlerini tanımlar (Creswell, 2007). Çalışmanın amacı olan öğretmenlerin kendi bildirdikleri uygulamaları, görüşleri ve bilgilerini incelemek doğrultusunda, verilen tanım da göz önünde bulundurularak, fenomenolojik çalışma deseninin bu çalışmanın doğasına uygun olduğu görülmüştür. Çalışma için, bir üniversite etik kurulu tarafından 27.01.2023 tarihinde etik kurul izni alınmıştır. Araştırmanın örneklemini Türkiye'de Ankara bölgesindeki özel okullarda çalışan erken çocukluk eğitimcileri oluşturmaktadır. Bu çalışmada, erişim ve coğrafi yakınlık nedeniyle zaman ve emek tasarrufu sağlayan kolay ulaşılabilir durum örneklemesi yöntemini kullanılmıştır. (Creswell, 2007; Yıldırım ve Şimşek, 2021). Mevcut çalışmaya yedi kadın ve bir erkek okul öncesi öğretmeni katılmıştır. Yaş, cinsiyet, mezuniyet düzeyi, deneyim yılı, şu anda çalışılan okul türü ve mevcut sınıfın yaş grubu ile ilgili demografik bilgiler de görüşme sorularına ek olarak toplanmıştır. Katılımcıların yaşları on dokuz ile kırk arasında değişmektedir. Ayrıca, deneyim yılları bir ila 18 yıl arasında değişmektedir. Buna ek olarak, katılımcıların yüzde 87,5'i lisans derecesine sahipken, yüzde 12,5'i ön lisans derecesine sahiptir. Bu çalışma için veriler Şubat – Mart 2023 tarihleri arasında toplanmıştır. Veri toplama alan yazında belirtilen bilgiler ışığında gerçekleşmiştir. Nitel çalışmalarda, olgulara ilişkin içgörü kazanmak, olguları gözlemlemek ve tanımak için görüşmeler, kayıtlar veya gözlemler yapılır (Creswell, 2014). Bu sebeple, yarı yapılandırılmış bir görüşme protokolü kullanılmıştır. Görüşme soruları ilk iki araştırmacı tarafından ilgili alan yazın taranarak geliştirilmiş ve uzman görüşü bir doktora öğrencisi ve araştırma görevlisinden alınmıştır. Uzman, ayrıntılı olarak, araştırmacılara çalışmanın odak alanlarına ilişkin soruları daha spesifik hale getirmelerini önermiştir. Böylece çalışmanın amacı göz önünde bulundurularak yeni sorular eklenmiş ve kategorize edilmiştir. Ayrıca araştırmacılar, katılımcılara yönlendirme yapılmasını önlemek için cümle yapısı hakkında geri bildirim almıştır. Bu nedenle cümle yapıları daha az yönlendirici olacak şekilde değiştirilmiştir. Yarı yapılandırılmış görüşmede dört ana bölüm bulunmaktadır. Bölümlerde sırasıyla; katılımcıların demografik bilgilerine, katılımcıların teori hakkındaki görüşlerine, bilgisine ve kendi bildirdikleri uygulamalarına ulaşmak amaçlanmıştır. Görüşmeler katılımcıların uygun zaman ve olanakları gözetilerek düzenlenmiş olup yaklaşık 15-20 dakika sürmüştür. Çalışmanın ilk iki araştırmacısı olan Erken Çocukluk Eğitimi Bölümü'nden iki yüksek lisans öğrencisi tüm görüşmeleri ayrı ayrı analiz etmiştir. Creswell'e (2007) göre, "... buradaki güvenilirlik, transkript verilerini analiz etmek için birden fazla kodlayıcının kullanılmasına dayanan kodlayıcılar arası anlaşmaya dayanacaktır" (s. 210). Bu süreçte katılımcıların cevapları sosyo-kültürel teoride ve alan yazında ifade edilen belirli kavramlar temelinde kodlanmıştır. Analiz sürecinde Creswell (2007) tarafından önerilen adımlar kullanılmıştır. İlk olarak, araştırmacılar cevapların transkriptlerini bağımsız olarak kodlamışlardır. İkinci olarak, bir araya gelerek kodlarını incelemişler ve ana kodlar geliştirmişlerdir. Bundan sonra, transkriptleri yine bağımsız olarak kodlamışlardır. Ardından, kodlara son halini vermek için bir araya gelmişlerdir. Kodların son hali, kategoriler oluşturmak ve sonuçları değerlendirmek için kullanılmıştır (Creswell, 2007). Mevcut kategorilere dayanarak kodlayıcılar arası uyum güvenirliği .91 olarak hesaplanmıştır. Miles ve Huberman'ın (1994) belirttiği gibi, kodlayıcılar arası güvenirliği sağlamak için kodlayıcılar arası uyumun %80'e yakın olması gerekir ve kodlama şemasının boyutuna ve aralığına bağlı olarak %90'a yaklaşabilir.

#### **Bulgular**

Mevcut çalışma, öğretmenlerin sosyo-kültürel teorinin bazı uygulamalarını gerçekleştirmelerine rağmen, çoğunun uygulamaların içeriği, özellikle de iskele kurma ve akran öğrenmesi hakkında açık bilgiye sahip olmadıklarını ortaya koymuştur. Detaylı olarak, çalışmada öğretmenlerin hem teori hem de uygulamada iskele kurma konusunda bilgi eksikliği olduğu rapor edilmiştir. Ayrıca öğretmenlerin, akran öğrenmesini kullandıkları ancak Vygotsky'nin perspektifinden akran öğrenmesi hakkında derin bir anlayışa sahip olmadıkları sonucuna varılmıştır. Öğretmenlerin bilişsel ve dil gelişimini entegre eden etkinlikler hakkındaki bilgi ve kullanımları açısından, öğretmenlerin çoğu yeterli bilgi ve öğretim uygulamalarına sahip olduklarını bildirmiştir.

#### Tartışma ve Sonuç

Akran öğrenmesi ve iskele kurma erken çocukluk eğitiminde önemli terimler olmasına rağmen, sonuçlar öğretmenin bunları uygun şekilde yerine getirmediğini göstermektedir. Öğretmenler akran öğrenmesinden faydalandıklarını ifade etmelerine rağmen, uygulama şekillerinin sosyo-kültürel teoride önerilenden farklı olduğu bulunmuştur. Ek olarak, öğretmenlerin öz-raporlu uygulamaları incelediğinde, çoğunluğunun iskele kurma tekniğinden faydalanmadığı görülmüştür. Sonuç olarak, öğretmenlere akran öğrenmesi ve iskele kurma konusunda daha fazla destek sunulması önerilmiştir. Ek olarak, araştırma sonuçları öğretmenlerin bilişsel gelişim ve dil gelişimi arasındaki ilişkiye dair bilgileri olduğunu ve öz-raporlu uygulamalarına göre sınıf içinde de kullandıkları sonucuna varılmıştır. Bu durum Okul Öncesi Eğitim Programının bütünleştirilmiş doğası ile örtüşmektedir. Bu sonuçlar kapsamında, bir çıkarım olarak, öğretmenlere akran öğrenmesi ve iskele kullanımı konusunda teorik ve pratik eğitim verilmesi önerilmiştir. Ayrıca, mevcut çalışma öğretmenlerin sosyo-kültürel teori hakkındaki görüşlerini detaylı bir şekilde incelemeye çalışırken, önceki araştırmaların genellikle teoriye daha genel bir şekilde odaklandığı da fark edilmiştir. Bu durum, öğretmenlerin sosyo-kültürel teorinin uygulamaları hakkındaki özel bilgi ve görüşlerini anlamayı zorlaştırmaktadır. Bu sebeple, öğretmenleri teori hakkında desteklemek için bu sonuçlara sahip olmak gerektiğinden, sosyo-kültürel teori alanında daha fazla araştırma yapılması gerekmektedir.

#### Öneriler

Bu çalışmanın birkaç sınırlaması bulunmaktadır. İlk olarak, örneklemdeki katılımcı sayısının sekiz olması örneklem büyüklüğü sınırlaması olarak değerlendirilebilir. Ek olarak, örneklemde kadın ve erken oranı eşit değildir. Gelecekte yapılacak çalışmalarda bu çalışmanın daha büyük ve eşit bir kadın erkek oranına sahip bir örneklemle yürütülmesi daha iyi sonuçlara ulaşılması açısından faydalı olacaktır. Bunlara ek olarak, çalışma özel okullarda görev alan okul öncesi öğretmenlerini kapsamaktadır, ancak gelecekteki çalışmalarda devlet okullarında görev almakta olan okul öncesi öğretmenleri de incelenebilir. İkincil olarak, çalışma soruları teoriyi daha kapsayarak ele alacak şekilde düzenlenip uygulanabilir. Son olarak, öğretmenlerin öz raporlu uygulamalarından yararlanmak sınırlı bir yöntem olduğu için öğretmenlerin teori ile alakalı uygulamalarına ulaşmak için ek yöntemler kullanılabilir. Örneğin, sınıfın ve çocukların öğrenme deneyimlerinin doğrudan gözlemlenmesi veya öğrenme etkinliklerinin dokümantasyon analizi gelecek araştırmalarda kullanılabilir.

# Yayın Etiği Beyanı

Bu araştırmanın, Orta Doğu Teknik Üniversitesi İnsan Araştırmaları Etik Kurulu (İAEK) tarafından 27.01.2023 tarihinde 0029-ODTÜİAEK-2023 sayılı kararıyla verilen etik kurul izni bulunmaktadır. Bu araştırmanın planlanmasından, uygulanmasına, verilerin toplanmasından verilerin analizine kadar olan tüm süreçte "Yükseköğretim Kurumları Bilimsel Araştırma ve Yayın Etiği Yönergesi" kapsamında uyulması belirtilen tüm kurallara uyulmuştur. Yönergenin ikinci bölümü olan "Bilimsel Araştırma ve Yayın Etiğine Aykırı Eylemler" başlığı altında belirtilen eylemlerden hiçbiri gerçekleştirilmemiştir. Bu araştırmanın yazım sürecinde bilimsel, etik ve alıntı kurallarına uyulmuş; toplanan veriler üzerinde herhangi bir tahrifat yapılmamıştır. Bu çalışma herhangi başka bir akademik yayın ortamına değerlendirme için gönderilmemiştir.

# Araştırmacıların Katkı Oranı Beyanı

Birinci Yazar %50, İkinci Yazar %40 ve Üçüncü Yazar %10 oranında katkı sağlamıştır.

# Çatışma Beyanı

Araştırmanın yazarları olarak herhangi bir çıkar/çatışma beyanımız olmadığını ifade ederim. Ayrıca yazarlar, diğer kişi, kurum ya da kuruluşlarla herhangi bir çıkar çatışması içinde olmadıklarını beyan ederler.