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Çocuklar için Felsefe Öğretim Programının Özel Öğrenme Güçlüğü Olan Çocukların Soru Oluşturma Becerileri Üzerine Etkisi

The Effect of Philosophy for Children (P4C) Curriculum on Formulating Question Skills of Children with Special Learning Disabilities [1]

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ÖZ: Çocuklar için felsefe yaklaşımı, felsefi diyalog yoluyla çocuklarda eleştirel düşünmenin geliştirilmesi yöntemidir. Eleştirel düşünmenin önemli bir aşaması olan sorgulama becerisi, bir deneyimin anlamlı duruma getirilmesi için gerçekleşen entelektüel bir süreçtir. Soru sorma ise sorgulama sürecinde kullanılan en eski öğrenme-öğretme araçlarından biridir. Özel öğrenme güçlüğü (ÖÖG) olan çocukların bilişsel ve sosyal gelişim yönünden çeşitli ayırt edici özellikleri bulunur. Düşünme, bilme, algılama, muhakeme etme, karar verme, bir düşünceyi izleme, hatırlama, özetleme, genelleme, yordama, çıkarsama gibi bir düzü bilişsel beceriyi kapsayan üst düzey düşünme becerilerinin gelişimi özel öğrenme güçlüğü olan küçük yaştaki çocuklarda henüz yeterince gelişmemiştir. Simon (1979) ÖÖG olan çocukların bilişsel ve sosyal becerilerini geliştirmek amacıyla "Çocuklarla Felsefe" yaklaşımının etkili olacağını öne sürmüştür. Bu doğrultuda, bu çalışmada Çocuklarla Felsefe yaklaşımı doğrultusunda hazırlanan öğretim programının ÖÖG olan çocukların soru oluşturma becerileri üzerindeki etkisi araştırılmıştır. Araştırmada yarı deneysel desenlerden tek grup ön test son test seçkisiz deneysel desen kullanılmıştır. Uygulamalar on hafta süresince haftada bir gün birer saat şeklinde uygulanmıştır. Çalışma grubu, 2. ve 3. sınıf düzeyinde olan ve ÖÖG tanısı almış 13 çocuktan oluşmaktadır. Veriler "felsefi sorgulama metni ve sorularını içeren görüşme formu" ve eğitim oturumlarındaki ses kayıtları ile toplanmıştır. Elde edilen verilerin analizinde tüme varımsal veri analizi yöntemi kullanılmıştır. Bulgulara göre "Çocuklarla Felsefe" uygulamalarının ÖÖG olan çocukların felsefi sorgulama süreçlerinde oluşturdukları soruların düzeyini geliştirdiği görülmüştür.

Anahtar sözcükler: Çocuklar için felsefe (P4C), çocuklarla felsefe (PhwC), felsefi sorgulama, soru oluşturma, öğrenme güçlüğü

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[2] Dokuz Eylül University Legal Consultancy has been deemed appropriate by the Ethics Committee in their letter with reference number E-87347630-640.99-33895 dated 25.03.2021. The İzmir Provincial Directorate of National Education has approved the research to be conducted in an institution affiliated with the Ministry of National Education, as stated in their letter with reference number E-12018877-604.02-24885585 dated 30.04.2021.

ABSTRACT: The philosophy for children approach is a method of developing critical thinking in children through philosophical dialogue. Questioning skills, which are an important stage of critical thinking, is an intellectual process that takes place in order to make an experience meaningful. Asking questions is one of the oldest learning-teaching tools used in the inquiry process. Children with special learning disabilities (SLD) have various distinctive features in terms of cognitive and social development. The development of high-level thinking skills, which includes a whole set of cognitive skills such as thinking, knowing, perceiving, reasoning, making decisions, following a thought, remembering, summarizing, generalizing, predicting, and inferring, is not yet sufficiently developed in young children with special learning disabilities. Simon (1979) suggested that using the "Philosophy with Children" approach would be effective in improving the cognitive and social skills of children with SLD. Accordingly, in this study, it was investigated effectiveness of Philosophy for Children curriculum on the question-formulating skills of children with SLD. In the research, one group pre-test post-test random experimental design, which is one of the quasi-experimental designs, was used. The applications were implemented for one hour, once a week for ten weeks. The study group consists of 13 children who are in the 2nd and 3rd grade and diagnosed with SLD. The data were collected with the "interview form containing the philosophical inquiry text and questions" and the audio recordings of the training sessions. The inductive data analysis method was used in the analysis of the obtained data. The findings indicated that, the "Philosophy with Children" curriculum improved the level of questions that children with SLD create in their philosophical inquiry processes.

Keywords: Philosophy for children (P4C), philosophy with children (PhwC), philosophical inquiry, formulating question, learning disability

1. INTRODUCTION

In the 1970s, the approach of "Philosophy for Children (P4C)" entered our lives, which aims to develop critical thinking in children through philosophical dialogue. This approach was proposed by American philosopher Matthew Lipman. It is applied in 50 different countries, and materials providing information about its application and activities have been translated into 20 different languages (Daniel & Auriac, 2011). Due to the studies of Lipman and other philosophers in this field, philosophy for children is now also known as 'philosophy with children (PhwC)' (Cassidy & Christie, 2013; Kennedy, 1999; Vansieleghem & Kennedy, 2011; Vansieleghem, 2005). The P4C expression symbolizes the four types of thinking that are aimed to be developed in children, which are critical, creative, collaborative, and caring thinking. It also represents philosophy with children and communities.

Figure 1: *P4C Approach and Thinking Skills*

(taken from http://www.princessfrederica.brent.sch.uk/philosophy-4-children.html)

There are multiple methods of applying the "Philosophy for Children" approach. These methods aim to develop a range of skills in children, including critical and creative thinking, problem-solving skills, reading comprehension (Dyfed County Council, 1994; Fields, 1995; Haas, 1980; Lipman & Bierman, 1970; Williams, 1993), math skills (Fields, 1995), self-esteem (Dyfed County Council, 1994; Sasseville, 1994), listening skills and expressive language (Dyfed County Council, 1994), emotional intelligence (Doherr, 2000), and social skills (Giménez-Dasí, Quintanilla & Daniel, 2013; Naraghi, Ghobadiyan, Naderi & Shariatmadari, 2013). Additionally, it aims to enhance children's communication skills with their peers in solving a common problem. Lipman heavily drew on John Dewey's pragmatic

philosophy of critical thinking while preparing the sections of this program (Lipman, 1996). Lipman's goal in these programs is to help children become more thoughtful individuals who can articulate a judgment, defend it, justify it, and question it (Vansieleghem & Kennedy, 2011).

The "Philosophy for Children" sessions consist of stages such as relaxation exercises, setting session rules, presenting stimuli (stories, objects, pictures, etc.), thinking about the stimuli, formulating and asking questions, making connections between questions, choosing a question for philosophical inquiry, developing thoughts about the question, following each other's thoughts, and encouraging ways to question. When these stages are examined, it can be said that "Philosophy for Children" sessions directly affect children's thinking and questioning skills (Trickey & Topping, 2004).

Inquiry is an intellectual process that enables an experience to be brought into meaningful situations. Inquiring individuals are motivated, directed, ensure the continuity of inquiry, skeptical, willing to learn, curious, respectful of reasons, and need time to adopt evidence (Beyer, 1991). In the process of inquiry, problems are attempted to be solved or questions are asked to find answers to these questions (Wood, 2003). The aim here is for individuals to access information from real-life situations by using their problem-solving skills and to develop skills and attitudes that generalize this information (Wilder & Shuttleworth, 2005). The quality of the questions asked is crucial for a good inquiry process because well-crafted questions enable children to better analyze the depth of their thinking (Moyer & Milewicz, 2002).

Asking questions is one of the oldest teaching and learning tool. It is known that Socrates educated his students by asking thought-provoking questions instead of telling them things. Questions play a role in both cognitive and metacognitive strategies by facilitating the use of mental processes. Effective questioning serves a metacognitive function as it requires effective thinking and facilitates comprehension (Açıkgöz, 2014). According to Wong (1985), asking questions is an important step in actively processing learning material. According to Gall (1987), asking questions is a method that encourages students to think and activates them mentally. Question levels hold special importance in formulating questin procedure. Research has shown that higher-level questions deepen the process of information processing (Rickards, 1979). The encouragement of higher-level learning through higher-level questions has been confirmed by a meta-analysis study examining the findings of twenty experimental studies conducted by Redfield & Rousseau (1981).

In educational sessions, it is observed that the number of student questions is much lower compared to teacher questions. However, the important thing in this process is to prioritize the development of the student's questioning skills and to enable them to become an active and independent learner as a result of producing questions. At this stage, it is desirable for students' questions to be oriented towards goals and context, and for the questions to be as high-level as possible (Frase & Schwartz, 1975). In Duell's (1977) study evaluating students' question generation skills, it was found that individuals who generated higher-level questions were more successful than those who generated lower-level questions, as they focused only on the purpose. Sadker and Cooper's (1974) study, in which they trained students in assessment, problem-solving, comparison, cause-and-effect, and open-ended questioning, revealed that the group trained to develop questioning skills had a higher capacity for asking high-level questions than the control group. In addition to these, another benefit of the questioning process is seeking answers to the questions asked. In various studies (Rosenshine, Meister & Chapman, 1996), it has been observed that students think more about questions they or their peers have created and try to answer them. Another study supporting this result was conducted by Raphael and Wonnacott

(1985). In this study, students were trained to improve their skills in searching for and answering questions. At the end of this training, it was determined that the answers of the trained students were of better quality than others.

As presented in studies, the process of questioning and asking questions is not only a cognitive activity but also a means of self-expression for individuals. Therefore, it is beneficial for children, in particular, to focus on the process of expressing themselves, to understand the context of the process, to ask content-specific questions directed towards the context, and to engage in group discussions to further develop their thinking process. According to the implementation process of "Philosophy for Children" approach, children focus on a stimulus, understand it, generate context-related questions, search for answers to these questions with a group, and construct their thoughts together with a group.

Especially for children with specific learning difficulties (SLD), who are the most frequently benefited group from inclusive education, it is known that they do not perform as well as their typically developed peers in the processes mentioned above. Individuals with SLD have various distinctive features in terms of cognitive and social development (Gillberg & Soderstrom, 2003; Graham et al., 2020; King-Sears, 2014). The aim of special education is to develop the cognitive and social communication-interaction skills of these children (Coates et al., 2020). Some high-level thinking skills, including thinking, knowing, perceiving, reasoning, decision-making, following a thought, remembering, summarizing, generalizing, predicting, and deducing, have not yet developed sufficiently in some children with SLD at a young age (Khasawneh et al., 2020; Khasawneh, 2021). Khasawneh et al. (2020) determined the level of metacognitive thinking in a group of students with learning disabilities. For this purpose, a scale prepared by the researchers was used to measure the level of metacognitive thinking among the students. The results of the study showed that the students had a low level of metacognitive knowledge. The results also showed no statistically significant differences in the level of metacognitive thinking associated with age, gender, and the type of learning disability. Based on the results obtained in this study, some suggestions and recommendations have been provided for further research in this field. In addition, they are confused about how to organize their thoughts before expressing themselves or how to support their thoughts and perspectives with arguments (Baten & Desoete, 2019; Drigas et al., 2021; Hacker et al., 2019). In short, they have weak control over the cognitive use of language (description, explanation, information provision, analysis, comparison, evaluation). These variables are also related to fluency in language (finding the right word quickly to express oneself), effectiveness and control (the ability to consciously convey a message and convey the message in various traditional and grammatical patterns), and consistency (the ability to be aware of relevant ideas) (National Joint Committee on Learning Disabilities, 1994; Turan & Yükselen, 2004). For these reasons, Simon (1979) suggested that the use of the Children's Philosophy program prepared by Lipman and Sharp (1975) at the Advancement of Philosophy for Children Institute would be effective in developing the cognitive and social skills of children with SLD. In a previous study conducted with typically developing children (Yıldız-Demirtaş, Karadağ & Gülenç, 2018), it has been scientifically demonstrated that the level of questions asked by children and the number of words they use to express themselves positively changed with philosophy practices with children. In addition, meta-analytic studies aimed at improving the metacognitive skills of children with learning disabilities have shown the positive effects of educational programs. Drigas and colleagues (2022) have shown in their review study that virtual reality provides a suitable ground for applying therapeutic metacognitive techniques. Moreover, experimental studies have shown beneficial effects on learning difficulties. According to Lytra and Drigas (2021), individuals with specific learning difficulties were found to exhibit cognitive impairments, which were often due to deficits in executive functions of working memory (such as

encoding, organization, processing, and information retrieval). However, improved metacognition can help these students develop more advanced metacognitive strategies and skills by allowing them to monitor, control, and evaluate their learning processes, ultimately helping them perform better academically. These skills are referred to as 21st-century skills and have been found to be fully aligned with the 8 core components of metacognition, such as self-awareness, self-monitoring, self-regulation, adaptation, recognition, differentiation, and mindfulness. The Science, Technology, Engineering, the Arts and Mathematics (STEAM) approach promotes critical thinking, creativity, and ultimately innovation through problem-solving. Students work to identify and understand a problem by connecting individual elements, design a solution, and evaluate its effectiveness. Studies exploring the effectiveness of STEAM learning on metacognitive skill development, strategies, and high-level competencies (such as creativity and critical thinking ability) in students with specific learning difficulties are limited, and therefore, more research conducted for this group of children will be of great interest (Lytra & Drigas, 2021).

Based on the literature, in this study, the impact of the Philosophy for Children approach on the questioning skills of children with SDL was investigated. In this context, the following questions were addressed:

1. What is the level of questions individually generated by children with SLD before and after Philosophy for Children practices?
2. What is the level of questions generated by children with SLD before and after Philosophy for Children practices?

2. METHOD

In this study, a single group pretest-posttest quasi-experimental design (Creswell & Creswell, 2017) was used, which is one of the quasi-experimental designs. Within the scope of the research, 10-week "philosophy for children" curriculum was prepared and implemented by 2 special education and “Philosophy for Children” experts. The curriculum activities were implemented once a week for one hour each for ten weeks. This curriculum was prepared within the framework of the CoPI method, which is frequently used in “Philosophy for Children” practices. Detailed information about this method will be provided in later sections.

1. Working Group

The working group was determined through criterion sampling, which is one of the criterion purposeful sampling methods. Two criteria were identified to determine the students who will participate in the study: i) to be diagnosed with SLD in accordance with university hospitals, and ii) not to have attention deficit hyperactivity disorder (ADHD) or any another special needs according to “Special Needs Report for Children”. During the research period, the planning was made in a way that would not disrupt the special and general education processes of the working group. Interviews were conducted with the teachers of 37 children nominated as participants in accordance with the determined prerequisites. As a result of these interviews, 20 children had to be excluded due to their inability to accommodate the program schedule as a result of their heavy class and course schedules, as well as the family's willingness to participate in the study but inability to maintain consistent attendance in the program.17 children were selected but during the program, 4 children were excluded from the study group because they did not attend the classes regularly. . The working group of the study consists of 13 children who are at the 2nd and 3rd grade level (8 and 9 years old) and have been diagnosed with SLD.

2. Data Collection Tools

Data was collected through a "philosophical inquiry text and questionnaire containing interview form" and audio recordings during the educational sessions.

1. Philosophical Inquiry Text and Questionnaire Containing Interview Form: At the beginning and end of the application, the "Happiness" themed philosophical inquiry text determined by the researchers was used to collect data. This text and questions were determined by two professors from the fields of Philosophy Education and Special Education, and a doctor who an educator of Philosophy for Children Approach is. This interview form includes a short story about "happiness" and 6 questions related to this text. After reading the text, 2 of the 6 questions were asked to determine if the children understood the text, 3 questions were asked to evaluate the children's inquiry skills on the philosophical theme, and 1 question was asked for children to formulate an unlimited number of questions related to the philosophical theme. The questions asked to evaluate the children's inquiry skills on the philosophical theme were selected as higher-level questions to initiate their inquiry process.

The text and questions were taken from Gülenç's (2013) book titled "Happiness" in the Philosophy Detectives Series. While determining the text, the appropriateness, comprehensibility, and support for the inquiry process of the text and questions were considered for the age group. The text and questions were reviewed by three special education teachers. To assess the suitability of the text and questions for children, interviews were conducted using this text and questions with ten children outside the experimental group. These philosophical inquiry sessions using this text and questions were conducted at the beginning and end of the study with each student in one-on-one interviews and audio recordings were taken.

In order to determine the level of questions created by children during their group work in philosophical practices, their conversations during group work were recorded with audio recording devices. Thus, the questions they created within the group were obtained and analyzed.

3. Data Collection

Data was collected in two different ways for the study.

1. At the beginning and end of the 10-week “Philosophy for Children” sessions, data was collected using a 'philosophical inquiry text and questionnaire interview form' with each child individually. Audio recordings were made during these sessions.

2. During the “Philosophy for Children sessions”, they formulated questions and shared them with the group. Each week, the questions created were voted on, and one question was selected for discussion. Audio recordings were made during the sessions for 10 weeks to evaluate the questions created during the sessions.

4. Data Analysis

During the data analysis, the process of children’s formulating questions was evaluated by two researchers. The method of inductive data analysis (Creswell & Poth, 2016) was used in the analysis of the data obtained from the interviews.

During the first stage, the questions created by the participants before and after the experimental prosedure were examined, while in the second stage, the questions they created within the group over the 10 weeks were examined. In this stage, the "question quadrant" method, a thinking tool developed

by Philip Cam in 2006 to improve the question levels in philosophy sessions with children, was used to classify the questions. Sample questions for each text and level were provided to better understand these question categories. According to this quadrant, the level of questions increases from text-related questions to intellectual questions and from closed-ended questions to open-ended questions.

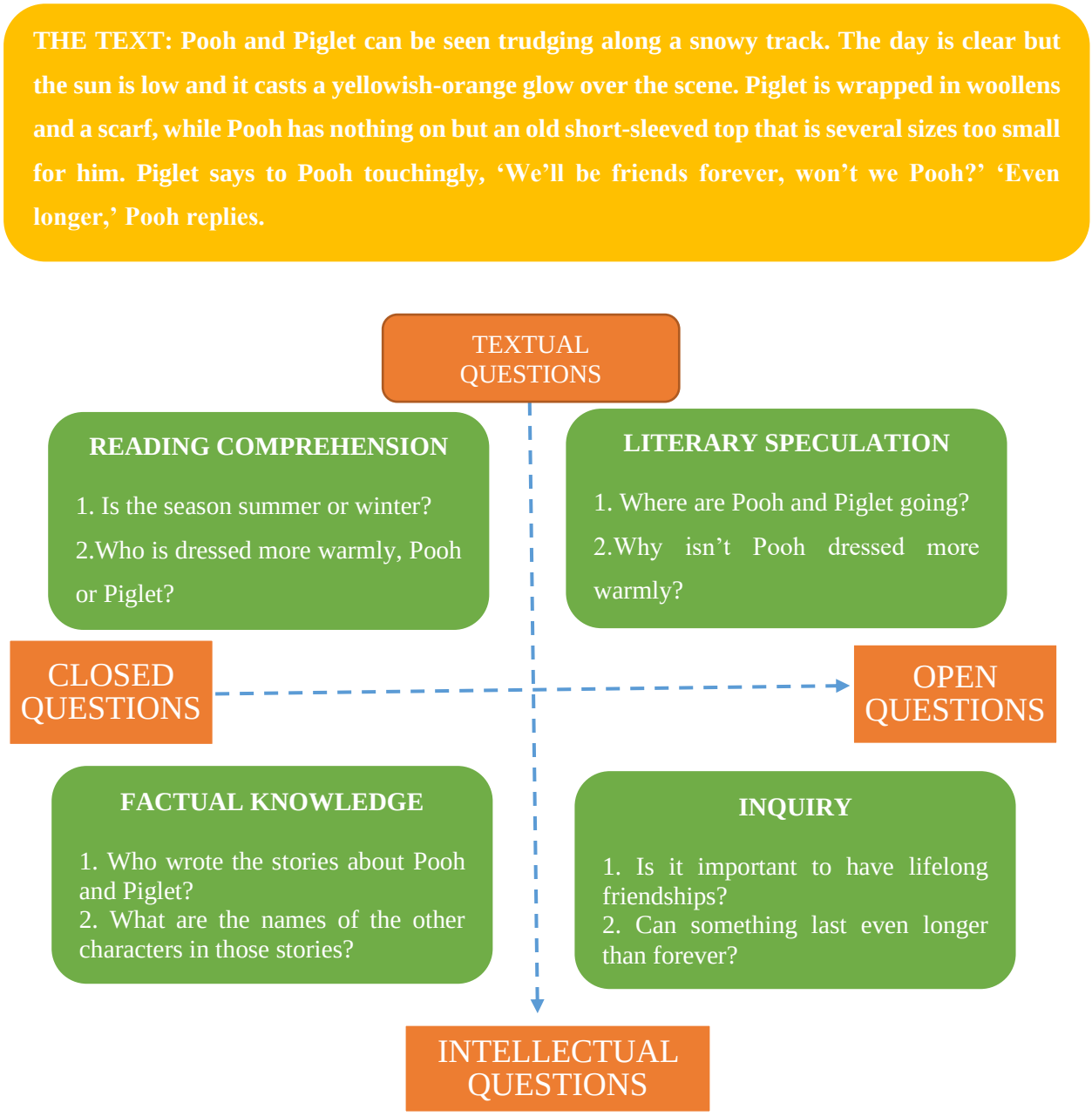

Figure 2: *Sample Text and Question Quadrant (Cam, 2006)*

The analyses conducted in the first and second stages were performed by two researchers, and agreement percentages were calculated for each stage of analysis. Accordingly, the agreement percentage of the analysis of the questions and levels created before and after the 'Philosophy for Children' sessions

as shown in Table 1 was found to be 100%, and the agreement percentage of the analysis of the questions and levels created during the 'Philosophy for Children' sessions as presented in Table 2 was found to be 97.69%.

In data analysis, the questions created by children in both large group settings with their peers and individual contexts both were examined. Thus, it was possible to compare the questions created by children in one-on-one interviews with those created within the group.

5. Process

The following steps were taken during the use and processing of data collection tools during the experiment:

1. Preparation of data collection tools,
2. Determination of the study group,
3. Preparation of session plans,
4. Implementation of the preliminary evaluation session and data collection of the study group,
5. 'Philosophy with Children' sessions were applied to the experimental groups using the 'CoPI' method (detailed information about the method is given below). These sessions were given once a week for 10 weeks for one hour each. The training was conducted by a doctor who is an educator of philosophy with children.
6. Conducting the final evaluations of the study group.
7. Data analysis.

5.1. Implementation Process

To ensure the continuity of group dynamics, the formation of a safe environment, consistency in experimental procedures, and the implementation of plans, experimental procedures were conducted by one of the researchers. The experimental procedures were carried out once a week in the mornings and lasted an average of 45-60 minutes.

Prior to starting the study, to enhance motivation while considering the age and diagnostic characteristics of the groups, the activity was named "Philosophy Detectives". Brief information was provided regarding what the philosophy detectives were expected to do, and rules were established in accordance with the steps of the 'CoPI' method.

The study environment was arranged in a way that group members could comfortably work, and the stimuli to be used in the study were prepared in advance.

5.2. Validity and Reliability of the Study

In order to ensure internal validity, the subjects to be included in the experimental and control groups were assigned objectively, the duration of the experiment was limited to a period of 10 weeks considering the maturation effect of the subjects, and the data collection process was carried out by a single researcher. Considering that the percentage of students attending public school is higher in order to ensure external validity, the sample was selected from public schools located in different regions of Izmir. Subjects were informed that these studies were part of their training to minimize any expectation effects.

In this study, the researcher is responsible for creating and conducting the study within the framework of scientific research ethics, determining the research model, determining the study group,

determining the data collection tools, managing the data collection process, preparing the intervention program that constitutes the experimental process, conducting the experimental process steps correctly, and the experimental process steps. The researcher actively participated in analyzing and interpreting the data, ensuring the validity and reliability of the research. In particular, in order to ensure the validity and reliability of the research and to conduct it under ethical conditions, the data collection process to identify the subjects and the application of the experimental process and the application of the pre-test / post-test data were completely carried out by the researcher.

5.3. Development Process of the Curriculum

In the first stage of this process, the literature on philosophy and special learning difficulties was reviewed with the children. After the review, the basic objectives and outcomes of the approach were determined. Then, the skills aimed to be developed in children with special learning difficulties were evaluated in line with the objectives of the approach. In this regard, 11 outcomes and 38 indicators that are the target of the program were determined. To determine the consistency of the approach and program objectives and their suitability for the preschool period, the opinions of a program development specialist, a preschool education specialist, and a philosophy educator for children were consulted. A questionnaire consisting of 6 questions was prepared to obtain feedback from these individuals who were external to the researchers conducting the study. Based on the feedback received from these individuals, the outcomes and indicators were finalized. Then, the content of the program was determined based on these outcomes and indicators. Ten separate activity plans were prepared in accordance with this content. Subsequently, measurement tools were established to assess the achievement of program goals. Four activities randomly selected from the program were implemented in a pilot application for four weeks with the guidance of an educator and observer who conducted the study, and feedback was obtained on their feasibility (suitability for age group, duration of use, and children's interest). The final version of the program was developed based on the feedback obtained from the pilot implementation.

CoPI Method in Philosophy for Children Approach: CoPI (Community of Philosophical Inquiry) method, also known as the 'Philosophical Inquiry Community' in the literature, is a 'philosophy with children' method that can be used for both adults and children. In CoPI sessions, the facilitator's role is to create the conditions for philosophical dialogue to emerge. Therefore, the CoPI session facilitator must have a basic understanding of philosophy and logic. When facilitating a CoPI session, the CoPI facilitator should create opportunities for each participant to contribute and the discussion remains focused on philosophical exploration. The facilitator employs the CoPI thinking structure to encourage the presentation of diverse perspectives. CoPI sessions generally begin with a stimulus provided by the facilitator. Participants are then encouraged to generate questions, and the philosophical inquiry process begins with one participant expressing their opinion on a selected question. Following this, participants who wish to contribute join the process by saying, "I agree with... because..." or "I disagree with... because...". CoPI sessions are typically ended by the facilitator when they feel the session has gone on long enough and participants are getting tired (McCall, 2013).

6. Compliance with Scientific Research and Publication Ethics

This research has been approved by the Ethics Committee through the letter of E-87347630-640.99-33895 dated 25.03.2021 from the Legal Advisorship of Dokuz Eylül University. The research has also been deemed appropriate to be conducted in an institution affiliated with the Ministry of National Education by the letter of E-12018877-604.02-24885585 dated 30.04.2021 from the Provincial National

Education Directorate of İzmir. "In compliance with the ethics committee's requirements, parental consent was obtained from the children's parents or legal guardians in the study group using 'Parental Consent Forms. Consequently, the study was conducted in accordance with scientific research and ethical principles.

3. FINDINGS

In this section, the levels of individual questions formulated by children before and after their participation in 'Philosophy for Children' sessions are presented as two separate findings. Additionally, the levels of questions formulated during the sessions by the children are also presented. Participant names were coded as 'C1, C2, C3...' for confidentiality and anonymity.

Table 1: *Questions and Levels Produced by the Working Group Before and After "Philosophy for Children" Sessions*

Code	Pre test Formulated Questions	Levels	Post Test Formulated Questions	Levels
C1	1. What does Emre like?	RC	1. Can people limit their own happiness?	I
			2. Do you think beings can express their happiness anonymously?	I
			3. Do you think bad people do evil because they are not filled with happiness?	I
C2	1. Does reading books make Emre happy?	LS	1. What is the happiest moment for you?	I
			2. Is happiness an important thing?	I
			3. Why is it important to be happy?	I
			4. What would happen if a person is always happy?	I
			5. What would happen if there was no happiness?	I
			6. What does happiness bring to a person?	I
			7. Can we be happy every day?	
C3	NO QUESTION WAS FORMULATED.	-	1. How do you feel when you're angry?	I
C4	NO QUESTION WAS FORMULATED.	-	1. What does it mean to be happy?	I
			2. When do we become happy?	I
C5	NO QUESTION WAS FORMULATED.	-	1. Is there a degree of happiness?	I
C6	1. What doesn't Emre like?	RC	1. Why do people have different emotions?	I
C7	NO QUESTION WAS FORMULATED.	-	1. Why does doing things we dislike make us feel burdened compared to doing things we enjoy?	I
C8	NO QUESTION WAS FORMULATED.	-	1. What is happiness?	I
			2. Can we always be happy?	I

C9	1. Why might Emre not be happy with just using a computer?	LS	1. Can a person suddenly become sad while he/she happy? May his/her thoughts change?	I
			2. Do we have to constantly show our happiness when we're happy?	I
			3. Can happiness be forced?	I
C10	1. Do Emre's friends also enjoy reading books?	FK	1. Is everyone's happiness different?	I
			2. What does being happy bring us?	I
			3. In your opinion, how can one become happy?	I
C11	1. What was the latest solution that Emre came up with?	RC	1. What is happiness?	I
			2. What does being happy provide us?	I
C12	1. Why does Emre like reading books?	RC	1. Is being happy preferable?	I
C13	1. Why do Emre's friends find reading books boring?	FK	1. Is the happiness of humans and animals the same?	I
			2. Can trees be happy?	I
			3. What would happen if everyone in the world was happy?	I

Note: Readıng Comprehensıon: RC, Factual Knowledge: FK, Lıterary Speculatıon: LS, Inquıry: I

As seen in Table 1, out of 13 children who participated in the "philosophy for children" sessions prior to the study, 8 of them created questions, and 4 of these questions were at the level of "reading comprehension," 2 were at the level of "literary speculation," and 2 were at the level of "factual knowledge." After the activities, all children created questions, and a total of 30 questions were obtained, with children creating multiple questions. All of these questions are at the level of "inquiry.

Table 2: *Questions and Levels Formulated by the Working Group During "Philosophy for Children" Sessions within the Large Group*

	Code	Formulated Questions	Levels
1st Session	**C1**	Where is Derin coming back from?	RC
	C2	Can our life be a dream?	I
	C3	Were the things Derin saw real?	LS
	C4	Where is Derin coming from?	RC
	C5	Did her aunt believe what Derin saw?	LS
	C6	NO QUESTION WAS FORMULATED.	-
	C7	What is the subject of the story?	FK
	C8	Where did Derin fall asleep?	RC
	C9	Will her aunt believe Derin?	LS
	C10	Why did Derin fall asleep in the car?	FK
	C11	What was real, riding the water lily or being in the car?	LS
	C12	NO QUESTION WAS FORMULATED.	-
	C13	NO QUESTION WAS FORMULATED.	-
2nd Sessi	**C1**	How did Veteris' new seat turn out?	RC
	C2	Would Veteris still be Veteris if its parts weren't changed?	I
	C3	Why did the car break down?	RC
	C4	Why is the car's name Veteris?	LS
	C5	Could Emre have gone on a journey without changing the car parts?	LS

	C6	If Emre had asked his grandfather, would he have allowed him to change the car?	LS
	C7	Why did Muzaffer name his car Veteris?	LS
	C8	Could Emre continue to use Veteris without changing its parts?	LS
	C9	Should he have asked his grandfather for permission before changing the car's parts?	LS
	C10	Who gave the car as a gift?	RC
	C11	Did Emre feel guilty while driving the car?	FK
	C12	Why did Emre betray the trust of the car he borrowed?	LS
	C13	Why does Emre still think of it as Veteris even though he changed the car's parts?	LS
3rd Session	**C1**	What could the Justice Cup symbolize?	I
	C2	Why did teacher Gülden divide the yoghurt drinks equally?	FK
	C3	What is the Justice Cup?	RC
	C4	How were such inventions made in those times?	LS
	C5	Did Pythagoras make this cup for the purpose of equality?	LS
	C6	What is the purpose and system of the Justice Cup?	I
	C7	What was Pythagoras' profession?	FK
	C8	Would it be fair if Teacher Gülden had let everyone do what they wanted?	I
	C9	Did the children understand what Pythagoras was trying to say?	LS
	C10	How does the Justice Cup work?	FK
	C11	What are the features of the cup?	FK
	C12	Why was this cup invented?	FK
	C13	What is the purpose of the Justice Cup?	FK
4th Session	**C1**	Would there have been a chance of Nazlı hitting someone if she hadn't gone to driving school?	LS
	C2	Should a person implement their decisions as soon as they make them in life?	I
	C3	What would have happened if Nazlı hadn't gone to driving school?	LS
	C4	How can Nazlı overcome her fear of driving?	LS
	C5	Do animals also have responsibilities?	I
	C6	Would anything have changed if the teacher hadn't told Nazlı about her own experience?	LS
	C7	Why did the first aid lesson catch Nazlı's attention?	RC
	C8	Does a person, even a teacher, have the right to make mistakes?	I
	C9	Would anything have changed if Nazlı had gone directly to driving school?	LS
	C10	Why did Nazlı want to get a driver's license?	RC
	C11	Has Nazlı managed to overcome her fear?	LS
	C12	Was it the teacher's fault that the gravel hit the car in traffic?	LS
	C13	Why did the teacher ask, "Do you think this is my fault?"	LS
5th Session	**C1**	Who is the character always happy?	RC
	C2	Would you still be happy if your birthday went very badly?	I
	C3	How would you feel if no one came to your birthday party?	I
	C4	Why did the character Pollyanna choose to emulate her?	LS
	C5	Would you be happier with more toys or more friends?	I
	C6	What would happen if there were no happiness, sadness, or emotions?	I
	C7	Would Pollyanna still be happy even in an earthquake?	I
	C8	Can you feel unhappy, scared, or surprised even on your perfect birthday?	LS
	C9	Is it right to be happy all the time?	I
	C10	Would you be happy if you had permission to play games all day?	I
	C11	What is happiness?	I
	C12	Why did the character Pollyanna choose to emulate her?	LS
	C13	Why does the story consider why we cannot be happy all the time?	LS
	C1	Why is the secret of life important to us?	I
	C2	Does discovering the secret of life make us happy?	I

	C3	Are the things that make us happy enough for us to live?	I
	C4	Why is Okinawa important for the secret of life?	FK
	C5	Does everyone have their own secret of life?	I
	C6	Where else has Veli Dede traveled to?	LS
	C7	Why do people in Okinawa live for so long?	FK
	C8	Was Veli Dede able to learn the secret to long life from the people in Okinawa?	RC
	C9	Do we have a reason to wake up every day?	I
	C10	Would Veli Dede also live a long life if he stayed in Okinawa?	ES
	C11	What is the secret to living a long life?	I
	C12	How much does Veli Dede love children?	LS
	C13	Would we wake up with the same happiness every day if we didn't have a reason to live?	I
7th Session	**C1**	What did the cicada do on the next summer day?	LS
	C2	How could the cicada have built a nest for itself?	LS
	C3	What if the cicada worked like the ant?	I
	C4	When did the cicada and the ant meet?	LS
	C5	Is helping always the right thing to do?	I
	C6	Should we evaluate the situation of the person we are helping?	I
	C7	Does working hard always lead to earning a lot?	I
	C8	Is it sometimes right not to help our friends by teaching them a lesson?	I
	C9	Does friendship require mutual help in difficult times?	I
	C10	Would the cicada do the same thing again after learning its lesson?	LS
	C11	Is it always right to provide help in every situation?	I
	C12	Do ants always work hard?	FK
	C13	Is it right for us to be full while someone else is hungry?	I
8th Session	**C1**	Does every lie eventually come to light?	I
	C2	If you were a police officer, would you have the same thoughts as the police officer in the story?	LS
	C3	Were the doctor and the thief accomplices?	LS
	C4	Why do people steal?	I
	C5	Can we lie to ourselves?	I
	C6	Why do thieves make mistakes even though they know it's wrong?	I
	C7	What does it feel like to knowingly commit theft, even if it's a bad thing?	I
	C8	Do people who do bad things do them knowingly?	I
	C9	Does everyone make a mistake while making mistakes?	I
	C10	Why do people who get caught lying still lie again?	I
	C11	How could the thief commit theft with a broken leg?	LS
	C12	Were the doctor and the thief accomplices?	LS
	C13	Would the thief still be accused if he told the truth from the beginning?	LS
9th Session	**C1**	What would happen if people were managed by a computer?	I
	C2	Can we escape from being controlled by a giant computer that manages humans?	I
	C3	What would happen if a giant computer was dependent on everyone?	I
	C4	What kind of person could invent a computer that manages people?	I
	C5	Are we all robots?	I
	C6	What would it be like if robots ruled the world?	I
	C7	Would there be chaos in the world if humans were managed by computers?	I
	C8	Can computers actually control humans?	I
	C9	Are freedom of thought and freedom of expression the same thing?	I
	C10	How can we know that we have free will?	I
	C11	How would you feel if you were managed by a giant computer?	I
	C12	Would life be bad if robots managed humans?	I

	C13	Is a computer necessary to establish order?	I
10th Session	**C1**	What does winning and losing show as important and unimportant?	I
	C2	What are your standout characteristics?	I
	C3	Why is winning or losing a goal?	I
	C4	Why do some people try to make themselves feel superior to others?	I
	C5	What do you do when you feel like everyone is against you?	I
	C6	Can our good qualities sometimes be a disadvantage?	I
	C7	Should we improve our good qualities or make our bad qualities better in order to survive?	I
	C8	Should we be upset when our inadequate qualities are exposed?	I
	C9	Do people who consider themselves superior ultimately lose?	I
	C10	What do you do when you feel inadequate?	I
	C11	How and when should we showcase our strong qualities?	I
	C12	Why does the fox consider itself superior to other creatures?	I
	C13	How does losing affect the future?	I

Note: Reading Comprehension: RC, Factual Knowledge: FK, Literary Speculation: LS, Inquiry: I

As seen in Table 2, during the first few weeks of the activities, the children participating in the study mainly created questions at the levels of "reading comprehension," "factual knowledge," and "literary speculation," while as the activities progressed, they created more and more questions at the level of "inquiry."

4. DISCUSSION and RESULTS

According to findings of the study, it was observed that "Philosophy for Children" practices improved the level of questions formulated by children with SLD in their philosophical inquiry processes.

Effective and "inquiring" question formulation is an indication of entering into the higher cognitive thinking process since it requires effective thinking. Additionally, asking effective questions is important for enriching the learning process. Creating high-level questions stimulates the mind by directing the individual towards higher-level thinking. One of the important details of the process of asking questions is the level of the question being asked. Because research has shown that questions with good inquiry levels and promote higher-level learning (Açıkgöz, 2014; Redfield & Rousseau, 1981; Rickards, 1979; Wong, 1985). According to research findings, it was seen that children generated low-level questions or could not generate any questions before the study. During the study process, it was observed that in the beginning, they asked questions that required understanding the text or making predictions about how the text could continue, but later, they mostly generated contextual questions based on the context. As stated above, according to the literature, this has been a process that promotes children's higher-level learning.

The development of higher-order thinking skills may not progress sufficiently in certain special needs groups, such as individuals with SLD, depending on their age level. Therefore, it is necessary to support the development of higher-order thinking skills, which encompass a range of cognitive abilities such as thinking, knowing, perceiving, reasoning, decision-making, following a thought, remembering, summarizing, generalizing, predicting, and deducing, in individuals with learning disabilities (Khasawneh, 2022; Khasawneh et al., 2021; National Joint Committee on Learning Disabilities, 1994). The findings obtained from this study have shown that the development of the important skill of questioning, which influences the process of higher-order thinking, can contribute to the enhancement of higher-order thinking skills in individuals with learning disabilities through the implementation of philosophy for children programs.

Another characteristic of children with SLD is that they may experience confusion in organizing their thoughts when expressing themselves. That is, their cognitive skills in using language for describing, explaining, and providing information are weak (Graham et al., 2020; Gillberg & Soderstrom, 2003; National Joint Committee on Learning Disabilities, 1994; Ozbek & Girli, 2017). When examining question sentences in research findings, it is seen that children ask questions that demonstrate active thinking process, where they use more accurate words over time, show curiosity, and make connections based on context.

These positive effects observed in children with SLD are thought to be due to their interactive participation in a 10-week program involving thinking about a stimulus, creating questions, making connections between questions, reflecting on the questions asked, and following the thoughts of other group members (Trickey & Topping, 2007). Additionally, scientific studies (Doherr, 2000; Dyfed County Council, 1994; Fields, 1995; Institute for the Advancement of Philosophy for Children, 2002; Haas, 1975; Lipman & Bierman, 1970; Williams, 1993) supporting the development of cognitive skills in children through philosophy for children approach also support these findings. Moreover, conducting "Philosophy for Children" sessions in collaborative learning groups allows them to interact and provide feedback, express their opinions about questions, help each other learn, and discuss their thoughts (Açıkgöz, 1992; Johnson, Johnson & Holubec, 1990; Johnson, Johnson & Manson, 2013; Yıldız, 1999). This is thought to be effective in the process of creating higher-level questions.

Simon (1979) suggested that using philosophy for children approach can be effective in improving the cognitive and social skills of children with SLD and this research has focused particularly on its impact on cognitive skills. In this regard, some recommendations have been made for future studies, including:

- Examining the effects of P4C practices on the social skills of children with SLD,
- Conducting more detailed studies on the language skills of children with SLD through P4C practices,
- Conducting P4C practices with children with SLD of different age groups,
- Conducting studies that aim to improve the cognitive and social skills of other special needs groups through P4C practices,
- Promoting the use of P4C practices.

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