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Development of a Primary School Teacher on The Philosophy with Children: An Action Research*

Celal Boyraz[a], Burçin Türkcan[b]

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[a]**Corresponding Author:** Celal Boyraz, Bayburt University, Faculty of Education, Department of Primary Education, Turkey
E-mail: cboyraz@bayburt.edu.tr
ORCID: https://orcid.org/0000-0001-5668-5051

[b]Burçin Türkcan, Anadolu University, Faculty of Education, Department of Primary Education, Turkey
E-mail: burcint@anadolu.edu.tr
ORCID: https://orcid.org/0000-0002-2441-5185

Abstract

This study aims at providing a detailed description of the ways to understand the development process of a primary school teacher on philosophy with children (PwC) approach. Action research was used as the research method since the problems determined in the current study can be iteratively solved with the development of the teacher. The study group consists of a teacher in a primary school located at the center of Bayburt, Turkey in the 2018-2019 academic year and 20 third-grade students. Qualitative data collection methods; observation, interview, field notes and diaries were used. A systematic analytical method was applied and the data were analyzed using a content analysis approach. The primary school teacher was provided with training on the PwC approach and eight action cycles were conducted regarding the implementation of this approach. Observations and interviews conducted in this process indicated that there are developments in the teacher in implementing the PwC approach and these developments positively affect some skills of the students. Based on the findings obtained in the current study, the authors made some recommendations for practice and future studies.

Keywords:

Philosophy With Children, Primary School Teacher, Teacher Training, Action Research

Introduction

The argument of Matthew Lipman, who is recognized as the founder of Philosophy for Children, "critical thinking can be taught" might be explained to children through the metaphor 'teaching a man to fish'. Considering thinking is the most unique trait of human beings and this trait includes many human characteristics such as speaking, feeling, socializing, and creating a culture (Taşdelen, 2013); training of the thinking ability will be the development of the core of the human identity. Humans have the innate ability to think, however, thinking skills must be taught to develop this ability and prevent it from being lay fallow. Training of thinking ability is the basis of human education in every century and period (Taşdelen, 2013). Training of thinking skills does not

only improves the thinking skills of the students but also enables them to be aware of meaning and cause of existence and provides the opportunity to determine their own future. Training of thinking skills leads children to question the world they live in, provides them a mental habit that allows making consistent evaluations, therefore, has significant importance on providing students with the ability to evaluate and solve certain problems on their own (Direk, 2013).

Turkey and many countries have made significant curriculum updates to provide individuals with thinking skills through education. The latest curriculum update in Turkey placed the thinking at the core of the curriculums. Thinking skills such as "analytical thinking, critical thinking, creative thinking, decision making, and problem-solving" are included in the skills that should be developed. For example, these skills are described under the 'life skills' topic in the Science Course Curriculum. In recent years, the curriculums were updated frequently in Turkey, and highlighting the thinking skills in the curriculums should be mentioned as an important step. However, teachers should gain the required skills as they are implementers of these curriculums. Because the key responsibility belongs to the teachers in providing students with thinking skills. A teacher aiming to improve students' thinking skills should effectively use verbal expressions, questions, and examples to activate students' thinking. Teachers should establish an appropriate classroom environment to promote the use of thinking skills. In this classroom environment; different kinds of thoughts should be valued, students should be able to improve their communication skills by expressing their thoughts freely and without any fear (Fisher, 2013). During this process, the teacher should guide the students to think and to manage their thoughts. Such a classroom environment will contribute students' thinking skills included in the curriculums (Gregory, 2008). Naturally, teachers should be aware of training programs on thinking and their role in these programs. Accordingly, the most effective approach on the thinking education for a teacher aims at improving students' thinking skills included in the curriculums should use the education method with its best-known name, Philosophy for Children, or the preferred name in the current study, Philosophy with Children (PwC).

PwC is a pedagogy widely used in schools to support students' thinking skills (Lipman, 2003). This method focuses on thinking and aims at developing thinking skills. In this process, providing philosophical knowledge and culture is in the second plan. (Taşdelen, 2013). PwC educational movement was first initiated by Matthew Lipman in the 1970s. Lipman, who was teaching philosophy and logic at Columbia University in the USA, realized that college students' thinking skills were weak and one should look at the childhood period to discover the causes (Lipman, 1976; Smith, 2010). This view led Lipman to investigate whether children can be gained philosophical thinking that involves bringing conceptual and rational evidence. As a result of the positive findings obtained in his research, he founded "The Institute for Advancement of Philosophy for Children" in 1974 to further improve this approach (Karakaya, 2006a).

PwC education encourages children to ask philosophical questions and answer them under adult guidance. In this period, children discuss philosophical concepts such as happiness, right-wrong, rights, justice, equality, and freedom through daily life experiences or stories related to their lives. Using thought-provoking questions, children reason, define concepts, and establish a relationship between these concepts and daily life (Worley, 2020). During this process, teachers should never provide students any information or provoke them about what they have to say unless anticipating something before (Guitton, 2011). Teachers' role in the PwC method is a person who introduces children with alternative options through questions and supports them to justify their explanations by reasons. A teacher is not just a person who has knowledge of philosophy, but also a person who shows his knowledge by asking the right questions at the right time, and has a curiosity-arousing function on children. (Gönül, 2013; Lipman, Sharp, & Oscanyan, 1980). Accordingly, many recommendations have been made for teachers or facilitators in the literature (Fisher, 2013; Gregory, 2008; Haynes, 2002; Lipman, Sharp & Oscanyan, 1980). Beyond doubt, appropriate teacher training is required to fulfill these suggestions. IAPC, which was founded in 1974 as part of Montclair State College based on the Lipman's thoughts, organizes various teacher trainings to make the PwC method widely used in schools. The IAPC provides these training programs in accordance with certain principles. First of all, The IAPC argues that the PwC approach can be more effective when it becomes part of the school culture, and therefore aims at building new relationships with teacher groups of a school (IAPC, 2020). According to the IAPC, a small group of teachers within a primary school should be trained for at least one year, then these teachers should be observed by a certified instructor and the observation and evaluation process of teacher practices should be carried out every week by certified instructors. Thus, the IAPC guarantees constant evaluation of teachers by their supervisors, students and themselves (IAPC, 2020). The authors tried to establish a similar process for implementation of the PwC approach in the present study.

A literature survey revealed that there are some studies introducing and describing the PwC approach (Bingham, 2015; Doddington, 2014; Gregory, 2011; Kennedy & Kennedy, 2011; Ndofirepi & Cross, 2015; Valitalo, Juuso & Sutinen, 2016; Vansieleghem, 2014;

Vansieleghem & Kennedy, 2011; Worley, 2009) and addressing its relationship with the education of citizenship, democracy, ethics and values (Bleazby, 2006; Burgh & Yorshansky, 2011; Cam, 2014; Di Masi & Santi, 2016; Garret & Piper, 2011; Mizell, 2015; Splitter, 2011). Moreover, some papers examined its relationship with cognitive, affective, and social skills (Daniel & Aurıac, 2011; Fisher, 2001; Gruioniu, 2013). Furthermore, some theoretical studies addressed the role and training of the teacher in philosophy with children approach (Farahani, 2014; Haynes & Murris, 2011; Knight & Collins; 2014; Lone, 2013; Wartenberg, 2009).

Additionally, several studies have been conducted in Turkey on the PwC approach. These studies include definition and introduction of the PwC approach (Akkocaoğlu-Çayır, 2015a; Boyacı, Karadağ & Gülenç, 2018; Çiçek, 2017; Erdoğan, 2018; Gür, 2010; Kabadayı, 2012; Mutlu, 2017; Taşdelen, 2014), its relationship with children's literature and literary works and model implementations (Akdağ, 2011; Günay, 2011; İlhan Tunç, 2017; İyi, 2011; Karakaya, 2005; Karakaya, 2006a; Önal, 2011; Ülper-Oktar, 2019) and studies addressing the discussions on PwC and its relationship with other fields (Dirican, 2017; Dombaycı, 2014; Karakaya, 2006b; Oral, 2013). A literature survey on the applied studies revealed that a majority of the studies are carried out at pre-school level (Demirtaş, Karadağ & Gülenç, 2018; Dirican, 2018; Karadağ, Demirtaş & Yıldız, 2017; Karadağ & Demirtaş, 2018; Okur, 2008; Taş, 2017). Moreover, there are few applied studies that directly address PwC at primary school level (Akkocaoğlu-Çayır, 2015b; Bülbül Hüner, 2018; Karasu, 2019). To the best of our knowledge, the study conducted by Akkocaoğlu Çayır (2018) is the only study examining the impact of the PwC approach on teacher candidates and difficulties experienced. However, no study has addressed the teacher, his role and his development regarding the PwC approach. Therefore, authors believe that introducing the PwC method for state schools and the teachers working in these schools can be useful to spread this approach wider audiences.

Considering the individual and social contributions of the PwC method, it is clear that the implementation of this approach will be useful at all educational levels from pre-school education to college. Primary school education is the most effective education level to implement this approach. As an initial and important step in formal education, primary school education has an important function as it forms a basis for subsequent education levels and additionally, the knowledge and skills acquired in this stage have a great impact on children's further education (Gültekin, 2007). Apart from pre-schools, primary schools are the places where children acquire their first experiences of the formal education environment. Therefore, it is the education level where education's role regarding the development of the culture and promoting creativity and innovation intensively carried out. Primary schools have a significant role in providing children with the cognitive skills required for higher-order thinking skills such as understanding, analyzing, evaluating and creating, and improving their affective and social skills (Adıgüzel, Tatlı-Dalioğlu & Ergünay, 2017).

The above-mentioned explanations and discussions attracted the authors' interest in how a teacher in a state primary school can use the PwC approach in lessons, what problems might be experienced in implementation and how to overcome these problems. Moreover, while addressing the question of how the PwC approach can be used at the primary school level, the action research method was considered and it was decided to implement this process in a Life Science course. The fact that the children should acquire behaviors including intellectual and artistic fields such as knowing, understanding, interpreting and predicting the natural and social phenomena and events they experienced, as well as they should use these principles, generalization, and methods in other situations (Sönmez, 2010, p.7) was the determinant factor in this view. Finally, the present study focuses on the development process of a primary school teacher on providing students with the thinking skills and examines how to implement a PwC approach in a Life Science course. Accordingly, this research aims at providing a detailed description of the ways to understand the development process of a primary school teacher on philosophy with children (PwC) approach.

Method

Research Design

An action research strategy was used in this study. Johnson (2015, p.19) defined action research as "the process of studying a school situation to understand and improve the quality of the educative process". Therefore, the present study focuses on a real classroom environment and the development of a teacher to enhance the quality of teaching through thinking skills. During the research, the first author (hereafter referred to as 'researcher') took an active role in the process and introduced the PwC approach to the teacher and ensured the teacher adopt and implement this approach. During this process, a validity committee consists of scholars supported the researcher. Taking these factors into consideration, authors decided to use an action research method based on "practice/mutual cooperation/discussion" introduced by Berg (2009). Moreover, the steps of the dialectic action research spiral developed by Mills (2011, p.112) was followed. The steps included in the spiral are "identify an area of focus", "collect data", "analyze and interpret data", and finally, "develop an action plan". The area of focus in the current study is determined

as the implementation of a PwC approach in the Life Sciences course by a primary school teacher of a state school and solution of problems encountered.

Participants

The school and classroom where the research conducted: The universe and sampling unit of the study are the same since the action research is conducted with people directly linked to the research questions. Accordingly, a purposeful sampling strategy was used in determining the school and class where the research will be conducted since this method focuses on the purpose of the study and provides rich information that needed for an in-depth study (Patton, 2002). The criterion sampling method as a purposeful sampling strategy was used to select participants. The following criteria were considered in the study:

- Selecting a state school to conduct the research
- Selecting a third-grade class
- A primary school teacher who had never had any training in PwC or thinking education
- The permission regarding the use of audio and video recording devices
- Voluntarily participation of the teacher in the action research
- A class with a maximum of 20 pupils

According to the criteria described above, the participants of the study consist of a teacher of a rural primary school in the 2018-2019 academic year and 20 students.

The classroom teacher. The teacher was graduated from a Primary Teacher Education Program and has been teaching for 11 years. He is 34 years old and has been the teacher of the students since the first-grade. During the research, the participant teacher was coded as "Teacher".

The students. 20 third-grade students studying in the Class 3-A participated in the research. 12 students were girls and 8 were boys. Fifteen of the students were born in 2010 and five in 2011. Four of the students' mothers were graduates of primary school, three were middle school, nine were high school and three were university graduates. Of the 20 mothers, 16 were housewives, 1 was teacher, 1 was cook and 1 was secretary. Two of the students' fathers were graduates of primary school, 11 were high school, and six were university graduates. Five of the fathers were teachers, 1 was soldier, 1 was civil servant, 1 was truck driver, 9 were working in various sectors and 2 were farmers. The participating students were coded with the names or surnames of people who have contributed to the fields of philosophy and education in Turkey. These names in alphabetical order are *Afşar, Ahmet, Ali, Aliye, Arslan, Bedia, Betül, Bilge, Fatma, Hasan, Necla, Nermi, Nuran, Oruç, Sabiha, Sevgi, Seyla, Teoman, Uygur, and Yücel.*

The first author (Researcher). During the action research process, the researcher was a participant observer and contributed to the implementation process through his specialty by cooperating with the implementing teacher. The researcher has a bachelor's and master's degree in Primary Teacher Education. He worked as a primary teacher in a public elementary school for about 1.5 years and has been working as a research assistant in the Primary Teacher Education department for 7 years. He had worked as the coordinator of the program called "Little Philosophers, Big Thoughts" in the winter and summer semesters of 2017 with children ranging in age from 8 to 16 at the Children's University which was established as part of Anadolu University Research Centre for Children's Education. In 2018, he organized "PwC" workshops for two weeks with the support of the Child Rights Unit in the Eskişehir Metropolitan Municipality. Additionally, he organized a workshop titled "PwC" with a total of 30 children ranging in age from 10 to 12 at the Winter School of the Children's University, which was established in 2019 as part of Bayburt University. He has both a teaching experience in this field and also a practitioner experience in the PwC approach, thus the authors believe that the researcher's experiences is an important factor for determining the gap between theory and practice in education and contributing its solution. Accordingly, he informed the teacher when needed with the role of participant-observer by avoiding disrupt the flow of the lesson, identified the problems with the teacher, and had the direct responsibility for the preparation of action and activity plans regarding the solution of these problems.

The validity committee. Validity committee have undertaken the role of supervising, discussing and evaluating the researcher's work during the research process. The validity committee consists of three members including the first author. The other members of the committee were working at the Bayburt University, Faculty of Education, Primary Teacher Education Department. One of the members, M.A has a Bachelor's and Master's degree in Philosophy and also a trainer of Philosophy for Children. The other member of the validity committee, Y.E. has a bachelor's, master's, and doctoral degrees in Primary Teacher Education. He has multiple years of teaching experience in this field and wrote his doctoral thesis on classroom management. The validity committee convened 9 times as of October 3, 2018.

The research environment

The research was conducted in the Class 3-A of the school. The Class 3-A had 10 student desks, a table

and a chair for the teacher, 3 cabinets, 2 bulletin boards, a writing board, a whiteboard, and an interactive board. The classroom had a U-Shaped desk arrangement with 2 students per desk. Since it was the actual classroom set-up and students familiar with this desk arrangement, no changes were made during the implementation. The 3D image of the classroom is presented in Image 1.

Image 1.
The 3D image of the classroom where the research conducted

Data Collection Tools

Only qualitative data collection techniques were used in the present study. This is because the data was collected from only one teacher and also considering the age range of the students. Moreover, different qualitative data collection techniques were employed to provide a wide variety of data. Observation, interview, field notes, researcher's and teacher's diaries, meeting logs of the validity committee, and personal information sheet were used as data collection tools.

Observation. An unstructured observation strategy was followed. The researcher, as a participant-observer, tried to penetrate and be a part of the culture or subculture that he examines (Yıldırım & Şimşek, 2008, p. 171). Video recording was made during observations to make in-depth analysis, review observations and, allow the researcher to take notes. To prevent any data loss, two video cameras were used during unstructured observations. Information regarding the video recordings is shown in Table 1.

While observations were carried out in the important courses such as Life Sciences, Math, Turkish, and Science during the assessment of the current status, observations were made only in the Life Science course during carrying out action plans. During the observations, field notes were taken and these were analyzed together with the observations.

Interview. Interviews were conducted with the teacher and students during the research period. After the assessment of the current situation, during and after the implementation individual, face to face, and stimulated recall interviews were conducted with the teacher. The free association narrative interview methodology includes using audio or video recordings to help the participant remember a thought process behind a behavior (Calderhead, 1981). The semi-structured group interviews were conducted with the students only after the implementation. While the interviews conducted with the teacher were recorded using an audio recording device and smartphone of the researcher, the group interviews conducted with the students were recorded with video cameras used in the observations. We prepared an expert evaluation form and consulted 7 field experts (two faculty members of Primary Teacher Education department, two Ph.D. students studying on Primary Teacher Education, and three Ph.D. students studying on Social Studies Education) to evaluate the content and language validity of the questions developed for the teacher and student interviews. The questions were reviewed and finalized by the researcher according to the expert recommendations.

Diaries. Diaries were kept by the researcher and teacher to reflect the observations and thoughts at all stages of the research. While the researcher kept the diaries on the computer, the teacher kept hand-written notes using a notebook. These diaries used to support the other data obtained during the research. The teacher kept 13 separate diaries corresponding to 13 days. The researcher also kept 17 separate diaries for 17 days.

Roles in the research process

The role of the first researcher. The researcher guided the teacher during his development. He identified the problems experienced in the classroom during the teaching process with the teacher and supported

Table 1.
Information about the Video Recordings

	Research Process	
	Assessment of the Current Status	Carrying out Action Plans
Date Period	15.10.2018-28.11.2018	22.02.19-09.04.2019
Number of lessons	36 lessons	18 lessons
Recording length	1391 min.	685 min.

him to find solutions to these problems. Moreover, he collected data during the entire research process, controlled the preparations regarding the actions, prepared the action plans, and conducted observations and interviews. Thus, the researcher played an active role at all stages of the research except the implementation.

The role of the second researcher. The second author supported the researcher during the entire research process. He guided the researcher during the preparation of action plans and activities, determination of data collection methods, and analysis of data.

The role of the teacher. The focus of this study is the development of the teacher as the practitioner of the PwC approach. The teacher, as the practitioner, supported the researcher during obtaining the consent from parents and collecting students' personal information to carry out the research efficiently. The most important role of the teacher, as a practitioner is to reflect his own development and also the development of his teaching skills through interviews and diaries. In addition to his practitioner role, he collaborated and helped the researcher in everything regarding the research process.

The role of the students. The students are the group that directly affected by the teachers' teaching process. Accordingly, the differences between the teachers' traditional teaching process and the PwC method were measured through the changes in the students. During the evaluation of these changes, the students' status before, during, and after the implementation was considered as the main determinant.

The action research process

The research was started in May 2018 including the application period for required permits and ended on 30 April 2019. Accordingly, the study covered a one-year period including four main stages: preparation, assessment of the current status, implementation, and finally, evaluation after the implementation. These stages are explained in Table 2.

The preparation stage. This stage includes obtaining the required permits. Then the school and classroom were determined, the teacher was met and he was given brief information regarding the research process. Student and parent consent forms were given to the students and the returning forms were collected by the teacher. On October 15, 2018, observations were initiated for assessment of the current status.

Assessment of the current status. The researcher conducted observations during 36 lessons in the Life Sciences, Math, Turkish, and Science courses. The data were simultaneously collected from the field and analyzed. Following the identifying of the problems by the authors, an interview was conducted with the teacher. After the interview, it was decided to prepare a general plan and implement action plans accordingly to find solutions to the determined problems.

The implementation stage. Following the assessment of the current status, on January 7, 2019, the teacher and researcher conducted a meeting in the teachers' lounge of the school in which the research will be carried out. A general plan was prepared according to the decisions taken during the meeting as provided below and this general plan was implemented.

Table 2.
The action research process

Stage	Date period	Performed tasks	Data types
Preparation	21.05.18-12.10.18	Obtaining required permits, Determining the school and classroom, Interviewing with the teacher and obtaining his approval, Meeting of the validation committee Meeting with the children and starting to the pilot video recordings	Ethical committee, MONE permit, Teacher, student and parent consents, Personal Information Form
Assessment of the current status	15.10.18-20.12.18	Making observations at a total of 36 lessons, Conducting an interview with the teacher	Observations (Video Recording) Interview (Audio Recording)
Implementation	07.01.19 14.01.19-25.02.19 25.02.19-04.03.19 04.03.19-11.03.19 11.03.19-18.03.19 18.03.19-25.03.19 25.03.19-01.04.19 01.04.19-08.04.19 08.04.19-15.04.19	General Plan Action Plan 1 Action Plan 2 Action Plan 3 Action Plan 4 Action Plan 5 Action Plan 6 Action Plan 7 Action Plan 8	Field Notes Observations (Video Recording) Interview (Audio Recording, WhatsApp Records) Diaries
Evaluation after the implementation	25.04.19	The final interview with the teacher	Interview (Audio and Video Recording)

Following the general plan, the action plans were implemented.

Evaluation after the implementation. The research process was completed after the implementation of 8 action plans. An interview was conducted with the teacher on April 25, 2019, to evaluate the implementation of these action plans.

Preparation of action plans

A total of 8 action plans (each two plans cover a course) were prepared by the authors and reviewed by the validity committee and the teacher. While preparing the activity plans, at first, outcomes were determined. According to the discussions made in the validity committee, 12 of the 22 learning outcomes of the Life Science courses that are intended to be achieved in the spring semester of 2018-2019 academic year were considered as suitable for the PwC approach. Additionally, it was decided to have an introductory activity in the Free Activities course in the first week since it will be the first experience of the teacher regarding the implementation and also to explain the rules to the students and introduce them some concepts such as philosophy, philosopher, philosophizing, and thinking. The outcomes of the first activity implemented in the Free Activities course were prepared by the authors. The activities were prepared for 7 of the 12 outcomes of the Life Sciences course that determined in the validity committee. Activities for the remaining 5 outcomes were not prepared since it was decided to end the action research study. The selected outcomes, stimulus used in the activity plans, and philosophical concepts were given in Table 3.

Following this process, philosophical concept(s) that can be associated with the related outcomes were identified, stimuli that might attract students' attention were determined, and based on these stimuli, open-ended questions were prepared that would present dilemma scenarios for students, enrich the discussion environment in the classroom and deepen thoughts. During the preparation of these plans, the researcher's experience as a practitioner provided valuable help. The researcher considered the answers and questions that students may ask and prepared notes for the teacher while developing each plan. The activity plans were prepared accordingly, considering the stages suggested by Fisher (2007, p.623) as explained below.

Focusing exercise. In this stage, students are prepared for learning outcomes, they asked to relax and the rules agreed upon are reminded.

Sharing a stimulus. Elements such as story, picture, poetry, and video can be used as stimuli to promote thinking.

Thinking time. This is the stage that a student thinks about what is interesting, strange, and unusual about

Table 3.
Information regarding the activity plans

Outcomes	Philosophical concepts	Stimulus	Implementation day and course
Defines philosophy with his own words. Realizes the nature of philosophical questions. Adopts the rules that should be followed when making philosophy.	Thinking, philosophy, philosopher, philosophical and scientific questions, Daily questions	Narrative	22.02.19 (Friday) Lessons 5 and 6 Free Activities
Provides examples regarding the importance of obeying traffic rules.	Rules	Narrative, Picture, Video	26.02.19 (Tuesday) Lessons 2 and 3: Life Sciences
Defines traffic signs.	Rules, Responsibilities Penalty, Freedom	Picture, Video	05.03.19 (Tuesday) Lessons 2 and 3: Life Sciences
Explains what should be done and who he can ask for help when someone threatens his safety.	Good-bad	Video	12.03.19 (Tuesday) Lessons 2 and 3: Life Sciences
He gives examples of things he can do when he faces a situation that threatens his safety in daily life.	Good-bad	Video	19.03.19 (Tuesday) Lessons 2 and 3: Life Sciences
Describes the regime of the country.	Living together, Ruling, Laws	Video	26.03.19 (Tuesday) Lessons 2 and 3: Life Sciences
Recognizes the public authorities and administrators in the close vicinity.	Knowing and not knowing	Video	02.04.19 (Tuesday) Lessons 2 and 3: Life Sciences
Establishes a link between the development of his country and the fulfillment of his duties and responsibilities.	Responsibilities, Duties	Video, Picture	09.04.19 (Tuesday) Lessons 2 and 3: Life Sciences

the stimulus and shares his thought with his partner(s). This stage starts with the question of the teacher.

Questioning. This stage includes writing, discussing, clarifying, and classifying of the questions or answers of children. New opinions that will initiate a new questioning phase should be received. At this stage, the teacher should behave completely as a member of the group.

Discussion. At this stage, children use each other's ideas and the teacher deepens questioning by providing reasons, examples, and alternative perspectives, thus enables children to engage in dialogue. In cases when alternative ideas cannot be developed, the teacher should play the role of an 'imaginary opponent' at this stage and strengthen the discussion.

Plenary. At this stage, children are asked to summarize issues discussed and review the discussion. Thus, the issues learned by the students are determined.

Validity and reliability of the research

Instead of the validity and reliability, the concepts included in a qualitative study such as trustworthiness, transferability, invariability, and confirmability were emphasized in the current study. Accordingly, to ensure the trustworthiness of the study, authors spent more time in the research environment, collected data at different times using different data collection tools to ensure data diversity, and shared the collected data with many experts and the validation committee. To ensure transferability, the author tried to describe the entire research process objectively and in detail. The criterion sampling method was preferred for determining the participants and the criteria were clearly stated. Moreover, direct quotations were used for presenting research findings.

To examine the invariability of the research, a macro analysis was carried out on the data obtained from the video recordings by the researcher and presented to the validity committee. Additionally, authors have made efforts to present the data obtained from different data collection tools consistently, supporting each other. Finally, regarding the confirmability, the raw data collected during the research were examined by the validation committee and the results obtained by the researcher were compared with the raw data. At the end of the research, the obtained results, judgments, interpretations, and suggestions were reviewed and confirmed by an expert who was not involved in the research process and the confirmability was ensured.

Analysis of the data

Only qualitative data were collected in this study. Therefore, the steps of qualitative data analysis were followed. Miles and Huberman (2015, p.10) defined the steps of qualitative data analysis as reducing data, presenting data, and finally, obtaining and verifying the results. Accordingly, the data collected through observations and interviews were reduced by reading, and macro analyzes were carried out by the researcher. Following the macro analyzes, the data were interpreted, discussed, and agreed upon with the validity committee. The agreed macro analyzes were finally presented to the teacher's review. The subsequent action plan was shaped using these obtained results and the data collection stage was repeated while implementing the subsequent action plan.

Although the study has a theoretical framework, the possibility of the formation of different categories from the collected data was taken into consideration and a content analysis technique was used for data analysis. The main goal of using the content analysis technique is to obtain the concepts and relationships that can explain the collected data (Yıldırım & Şimşek, 2008, p. 227). Accordingly, analysis of the data was carried out at four stages: coding of data, determining themes, organization of the codes and themes, and finally, identifying and interpreting the findings.

Findings

Only qualitative data were obtained during this action research study. The findings obtained from qualitative data were developed into themes as shown in Figure 1

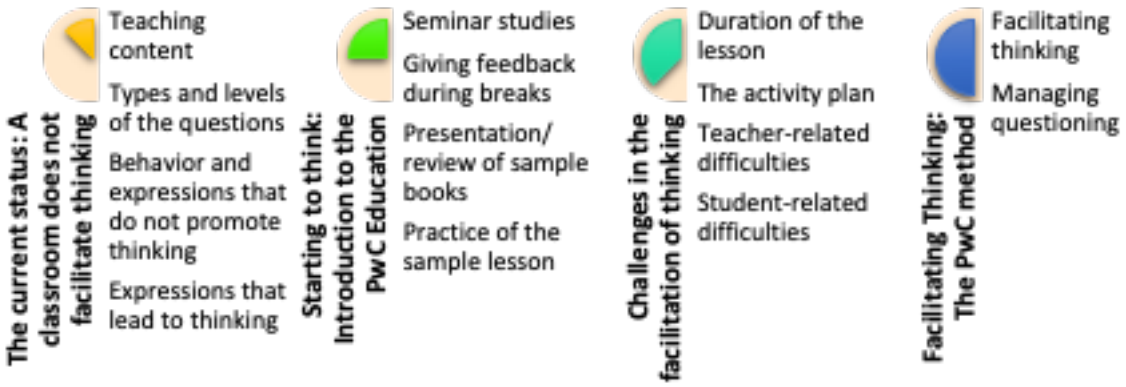

Figure 1. *The themes and sub-themes obtained from the data collected*

The current status: A classroom does not facilitate thinking

This theme includes the sub-themes of teaching content, types, and levels of the questions asked to the students, behavior, and expressions that do not promote thinking, and expressions that lead to thinking. The codes such as the use of textbooks and the e-learning platform, direct instruction, reminding, giving examples, and reinforcement were determined regarding teaching content. The teacher usually taught the course contents through direct instruction. The most frequently observed behaviors are the use of the e-learning platform in Life Sciences and Science classes, especially related to the teaching content and assessment. The e-learning is a platform that uses various animations for teaching content to the students through direct instruction and includes fun assessment activities for students. E-learning platform is generally used for assessment activities in Math and Turkish courses. It was observed that the teacher usually preferred direct instruction methods and provided reminders and examples in the Math course.

A quote from the teacher's speech regarding the direct instruction used by the teacher to remind in the Mats course is provided below.

> *T: What was the criterion about rounding? If the next digit to the tens is equal to one, two, three, or four, leave it the same. If the number is five, six, seven, eight, or nine, increase it by 1. It is the same for the hundreds digit also. If the number on the tens is equal to one, two, three, or four, leave the hundreds the same. If it is more, five, six, seven, eight, or nine, increase the hundreds by 1. We did it here. What was the five? It was in the middle. But which number the middle one turns into? It is turning to a bigger one.*

It was observed that the teacher uses the question-answer method in his lessons. However, considering the questions he used frequently, it was found that these questions were limited to the levels of knowledge and remembering. Especially closed-ended questions that can be answered by a simple word such as the questions end with the word "What" or "Which" and confirmation questions. Although relatively few in number, "Why" questions are also asked the students. An observation recording regarding the closed-ended questions asked by the teacher in the Math course is provided below.

> *T: Which digit are we looking at when rounding to tens? Who might answer? When rounding to tens? Nuran.*

The researcher observed that the teacher did not give students sufficient time to think of the answer of the questions. This may be because the teacher usually focuses on the correct answer in his mind and wants to obtain that correct answer as soon as possible. Moreover, it was also observed that the teacher used guiding, dictating, and judgmental statements in response to students' ideas regarding some controversial topics. A section of the teacher's speech is given below indicates that he did not give students sufficient time to think.

> *Nuran: We look at the tens...(the student does not sure about her answer, the teacher notices that and answers himself)*
> *T: Tens,... We look at the ones digit, right? And, when rounding to the hundreds, Necla...*
> *Necla: ...(she thinks, however, the teacher answers without giving her sufficient time)*
> *T: We look at the ones digit, right?*

It was observed that the teacher sometimes asked the students to present alternative ideas, think deeply, explain their reasoning, and deduce. However, very few examples were obtained about this. Especially, a dialogue example recorded in a Turkish course is given below.

> *T: Hasan, what will you do if you find an injured bird?*
> *Hasan: First, I would take it to a veterinarian. To heal it if it has a wound or something. Then I would tell someone who can take care of it. So, it will be recovered.*
> *T: Let's hear other opinions. Uygur, what will you do?*
> *Uygur: Do you know what I do? (He shows a throwing motion from the ground up) I would throw it like that. It will fly away.*
> *T: It has fallen, cannot fly. If it falls again after you throw? Do you take a risk?*
> *Uygur: Yeah.*
> *T: Ok, let's hear another opinion. Betül.*
> *Betül: I would bandage its injured parts. Then I would put it back in its nest.*
> *T: Very good.*

The teacher exhibited expressions and behaviors that encourage students to think, especially in the Turkish lessons. It can be said that the textbook of the Turkish course might be played a role here. Moreover, according to the researcher's notes, it was determined that the question patterns asked the students regarding the activities on a given text and also the presentation of the activity in the Turkish textbook prompt students to think. Besides, this was supported by a meeting held with the teacher. The teacher expressed his thoughts on the Turkish textbook saying:

> *T: As teachers, we usually implement the activities included in the textbooks provided by the directorate of national education. Accordingly, the thinking was not encouraged in the textbooks provided by the directorate of national education in previous years. Just question-answer was used for children. Very simple. However, the activities of this year seem quite different. They encourage children for speaking. For example, I'm looking at an activity given in the Turkish textbook and it says the children should say their opinions about that topic.*

Starting to think: Introduction to the PwC Education

As a result of the observations made in the classroom and the interviews conducted with the teacher,

the authors believe that the deficiencies related to the critical thinking skills can be fixed by increasing the awareness level of the teacher. Therefore, it was decided to provide the teacher training on the PwC approach by the researcher and support him through the process. The findings regarding this support provided by the researcher were addressed in the theme titled "Starting to think: Introduction to the PwC Education". This theme includes sub-themes of seminar studies, giving feedback during breaks, presentation/review of sample books, and practice of the sample lesson.

At first, comprehensive training was given to the teacher on the PwC approach by the researcher in the first action plan. Following this training, one day before the implementation of the activity plan of the week, a seminar was held regarding the problems experienced. Accordingly, on January 14, 2019, the first training was given to the teacher on the PwC approach by the researcher. The topics provided in this training are presented in Table 4.

Table 4.

Topics discussed in the interviews conducted with the teacher

Topics	Sub-topics
Philosophy	What is thinking? Philosophy Education, Teaching Philosophy
Children and Philosophy	Common points of children and philosophers, Can children do philosophy?
What is Philosophy with/for Children?	Historical development, Objectives, Content, Learning-teaching process, Assessment, Sample activities, Contributions
Teacher's role in the PwC	Question types, Classroom management, Asking for justification, Neutrality, Avoiding dictating, Respect, False opposition, Dependence to philosophical questioning, Interaction and communication

Following the first training, to address the inadequacy of the teacher regarding the implementation of the PwC approach, training was given to the teacher on the "Teacher's role in the PwC". While comprehensive training was given during the implementation of the first three activity plans, training intensity was decreased starting with the implementation of the fourth activity plan. This situation reflected in the interview conducted with the teacher as shown in the quote below.

> *The researcher: At which week did you feel sufficient regarding the implementation? Why?*
> *T: I felt very inadequate in the first week. I went home very upset. I was not satisfied with the lesson I gave. Besides, I couldn't receive feedback from students. It was like a disaster. The second week may be slightly better, the third a little more, however, after the 4th and 5th, I felt things got in the way. This is because I noticed my shortcomings. Especially, the meetings we conducted. Your warnings, such as "Here, you should do ...", "be careful with that..." provided great assistance to me. Gradual improvements and I think that the problems solved after weeks 4 and 5. I believe that I didn't face any difficulty in the following weeks.*

The researcher conducted observations in the classroom during the implementation process and accordingly, gave instant advice to the teacher during the recesses regarding which expressions he should use and how he should behave according to the PwC approach. This advice provided significant assistance for the development of the teacher since they allowed the teacher to fix his shortcomings faced during the implementation of the PwC approach. The teacher explained the assistance provided him by the researcher one day before the implementation and during the recesses in the following statement.

> *T: The advice was very useful. I wrote down them into my diary also. The meetings we conducted provided great support for fixing my shortcomings. Besides, the discussions we made during the recesses provided instant support. You frequently advised me at the beginning. This advice reduced each day. Considering these, I feel successful.*

Following the first training, the teacher was given 8 books about the PwC to read until the first application begins. These books; *Life of Timon of Athens, Learning Thinking with the Nasrettin Hodja, The Philosophical Child,* and *Picoolophilo C'Est quoi la mort?* Besides, *"Courage and Fear"* from the book series: *Philosophy Lollipops* and *"What is Goodness?"* from *The Philosophical Child* were also provided to the teacher. The effects of these books reflected in the teacher's diaries as follows:

> *"... the researcher conducted observations during the semester. I was given some books on Philosophy to read and analyze. I have basic knowledge of Philosophy since I took Philosophy lessons during my high-school and college education. However, as I read these books, I noticed that I know only 'P' of Philosophy. I realized that its essence is very different from what I know. I saw many different aspects of the funny stories and anecdotes of the Nasrettin Hodja that I didn't realize before. I learned the situation of Timon of Athens, his view of life, and how he changed. I can't wait to do PwC"*

Although the teacher's attention to the PwC approach and desire to implement it are important factors, a sample lesson was given by the researcher on 21 February 2019, to show teacher situations that may occur during the implementation. The teacher observed the implementation process during this lesson and wrote down some details in his diary.

> *"The text is read to the class at a slow speed so it can be understood. The story is left unfinished at a certain moment and open-ended questions are asked to the students. Following the answers, students are encouraged. The students are asked to clarify their answers and reasons. A discussion environment is created when opposing views were presented by the*

students. The teacher avoids actively involved in the discussion. In order to make the students' explanations more understandable, the teacher asks some questions such as "Can you explain a little more?" and "I don't fully understand, can you give some detail?" (continue explaining, can you give some examples?). If a student digresses from the original subject, the subject is remembered to him and the student is lead to think about the subject. After this lesson, I realized that students can do philosophy. A correct picture, a correct video, a correct question, and a warm environment make doing philosophy possible."

Many important aspects regarding the implementation of the PwC approach were reflected in the teacher's diaries as a result of the sample lesson given by the researcher. Many details were noticed by the teacher such as asking students open-ended questions and their reasons, creating a discussion environment when opposing views were presented, and avoiding too much involvement in the discussion. Therefore, the increased awareness of the teacher regarding the PwC approach was supported by a sample lesson.

Challenges in the facilitation of thinking

No obstacles were faced during the preparation and the assessment of the current status. However, some challenges affecting the quality of teaching were faced during the implementation stage, especially, in the implementation of the first three activity plans. It was determined that these challenges cover the sub-themes of the difficulties related to the duration of the lesson, the difficulties related to the activity plan, teacher-related difficulties, and student-related difficulties.

The activity included in the first activity plan was implemented during the lessons 5/6 on Friday, the last day of the week. Some problems associated with the selected day and time of the activity were observed in the students such as low motivation and lack of focus. These problems indicated in the teacher's diary as follows:

"Noise in the classroom, distraction, and boredom among students are the problems. It was very good at the beginning, in the first 15 minutes. Towards the end, distraction started. Naturally, this may be a result of implementing this activity in the lessons 5/6 on Friday. Because they used to play games at this time. However, it was quite acceptable to have such problems in the first practice."

Besides, the consensus view of the meeting held with the validity committee stated that the problems experienced were most likely due to time of the lessons and it was considered that implementing the next activity plan in lessons 1 and 2 would be more efficient. However, in the meeting regarding this issue, the teacher indicated that the most productive time is lesson 2. According to the teacher's suggestions, as a solution to problems arising from the time of the lesson, it was decided to conduct the following action plan in lessons 2 and 3. Following this decision, no problems faced regarding the time of the lesson during the activities.

The challenges arising from the activity plans are addressed under two separate topics; time management and the diversity of the subjects. Although the activity plan includes information and guidance on the subject for the teacher, the fact that the first activity plan covers some topics that the teacher is not fully competent such as thinking, philosophy, philosopher, philosophical question, and scientific question is considered as a problem arising from the activity plan. However, this can be accepted as a natural problem. Moreover, regarding time management, the teacher's hesitation about how long the discussion should continue was considered a problem. This is reflected in an interview with the teacher as follows:

T: In fact, I have studied too much on the plan, but I realized that I couldn't control it effectively. Moreover, I wasn't sure where to end the subject. I have faced such problems. I have also experienced a problem with time management. I have extended the duration of the subject a little bit because I didn't know when to end it.

Based on the meeting conducted with the validity committee and the teacher's views, it was decided to make a meeting with the teacher one day before the implementation to discuss the plan to solve challenges arising from the activity plan. No problems faced in the implementation of the activity plans regarding time management as a result of these meetings. However, during the implementation of the third activity plan, the teacher moved beyond the plan and took the initiative. This is important for the teacher to be an independent PwC practitioner. However, the teacher focused on a question that generate a dilemma for students during the implementation, although it was not included in the plan and was beyond the concept of "rule", the main theme of the activity. The teacher divided the class into two groups and asked them to discuss this question. However, this initiative taken by the teacher caused some difficulties regarding time management. The teacher was informed during the recess by providing observations on this issue.

The problem regarding the management faced in the first implementation was not encountered in the second implementation as a result of the meeting conducted with the teacher one day before the implementation. However, since the teacher stated that he had hesitation regarding the duration of the discussion during the third implementation, it was considered to add some guidance tips for the teacher in the activity plans. Considering the opinions of the validity committee, it was decided to add guidance tips regarding the time management in the activity

plans. These guidance tips include information for the teacher such as how much time should be spent on a question and the length of a discussion. An example of these tips is "Note for teacher: The story should be ended here and the questions given below should be discussed. First, the students are asked to ask questions regarding this text. These questions are written on the whiteboard. (This activity should take 10 minutes)".

The teacher implemented the PwC approach for the first time. Naturally, some teacher-related difficulties were experienced during the implementation such as lack of asking for justification, too much sticking to the plan, not listening to students, role confusion, fail to involve students in the discussion, and insufficient management of the dialogue. According to our observations, the teacher often looking at the activity plan in his hand during the lessons. This situation sometimes prevented the teacher from listening to students and therefore, he couldn't emphasize the answers of the students that can promote the discussion. A quote from the meeting held with the teacher indicating this issue is given below:

> *"Naturally, for the first time, I'm trying a new method. We want children to think freely without any disruption. I was confused about where to interrupt and end it. Should I end it, or not? The kid says his opinion. Should I interrupt him, or not? I had such hesitations in my mind. Or, I missed what the kid said when I was looking at the plan to think the next step".*

According to the PwC approach, the teacher should behave as a group member, heat up the discussion when thinking is poor, orient a view of a student to the class, and share his opinions with the students avoiding dictating. However, it was observed that the teacher experienced role conflicts here and unable to fully demonstrate the role of the teacher expected in the PwC approach. Moreover, the active participation of the students Hasan, Uygur, Sabiha, Nuran, Ali, and Sevgi, who were also effectively participated in the lessons before the implementation, were increased during the discussion process. The observations indicated that the teacher had difficulties regarding inviting other students to the discussion and encourage them. The PwC approach aims at full participation of the group in the discussion. Here, the main responsibility belongs to the teacher. Therefore, in order to fix such teacher-related problems, training was given explaining the teacher's role in the PwC approach. Moreover, the researcher provided feedback to the teacher regarding the previous lesson during recesses.

The observations made in the implementation of the first activity indicated that students do not listen to others, they make noise in the classroom, and therefore, they warned multiple times by the teacher. Since the rules regarding the PwC approach explained to the students at the end of this activity and this was the first experience of both the teacher and students, such issues can be accepted. In order to fix these problems, it was decided to remind students to follow the rules at the beginning of each lesson, and accordingly, o note for the teacher about this was added in the activity plans.

Some ideas such as awarding a prize or selection of "Little Philosopher of the Week" were generated on the meeting held with the validity committee to help students to follow the rules and increase student participation. It was considered that the use of a board regarding "Little Philosopher of the Week" might increase students' participation and attention in class by increasing their motivation. Since the teacher also made a similar suggestion, it was decided to choose "Little Philosopher of the Week" at the end of each activity and a board was prepared accordingly as shown in Image 2.

Image 2.
"Little Philosopher of the Week" board.

The contribution of the "Little Philosopher of the Week" board to the students' motivation is mentioned in the researcher's diary as follow:

> *"Today we implemented the second activity. At the beginning of the lesson, the teacher said to the students that the "Little Philosopher of the Week" will be chosen and the students very enjoyed this idea. They asked many questions to the teacher, how this will be done, how to choose, etc. Comparing to the first activity, the teacher was very confident. He read the story to the class with his own words. He didn't look at the plan too much."*

In the following weeks, the "Little Philosopher of the Week" board should have motivated Nuran and Nermi since the following thoughts were mentioned in the teacher's diary.

> *"The "Little Philosopher of the Week" board attracted great attention among students. Even the winner, the philosopher of the week, Nuran brought her mother to the school and showed the board. Nermi, who never speaks, hugged me warmly and said "Sir, from now on I will always participate" because we chose her.*

Consequently, the authors believe that a board such as

"Little Philosopher of the Week" may have a significant impact on students' motivation, participation, and attention in the class regarding the implementation of the PwC method.

Facilitating Thinking: The PwC method

The authors believe that the teacher displayed a significant development regarding the implementation of the PwC method during the action research study. This theme includes sub-themes: facilitating thinking and managing questioning. It was determined that the sub-theme of facilitating thinking include the following codes: requesting reasoned thinking, requesting explanations, requesting alternative opinions, giving time for thinking, asking notional thinking, reflection, encouraging thinking, and organization of thinking.

It was observed that the teacher acted decisively regarding requesting reasoned thinking from students as in the quote below:

T: Yes, Hasan.
Hasan: It will be very good.
T: Why did you say so?
Hasan: I don't know.
T: No, my dear. Ideas should be reasoned. Be serious, please.
Hasan: There might be accidents.

A quote given below from the fifth activity plan can be mentioned as an example of this. Besides, the teacher gave Afşar time for thinking.

T: Are earthquakes bad? Why? Demirhan. Louder, please.
Arslan: They are bad. Because they kill millions of people.
Afşar: They are bad.
T: Why?
Afşar: I didn't think about it.
T: You should think about its reason. Do you remember our rule? We should say its reason. Think for a while.

The teacher noticed that the students have similar opinions and asked them to develop alternative ideas. A section of the teacher's dialogue regarding this is given below:

Sevgi: Sir, I wouldn't drink since we couldn't live without rules.
T: Ok. Another opinion. Necla.
Bilge: Sir, I wouldn't drink either. Because it's impossible to live without rules.
T: Ok. Yücel.
Yücel: I wouldn't drink either. The teacher might be angry at us if there were no rules.
T: Ok, there are similar views. No need to hear similar views anymore. Let's hear different views now.

The teacher requested students many times to make explanations or give examples to express their views clearly. A dialogue is given below as an example:

T: Ok, let's change the question. Can a person help his country to develop?
Uygur: If he is the president, yes.
T: How?
Uygur: He can develop the country. That is, he would.
T: Can you give an example?
Uygur: He would develop, for example, he builds new factories. He constructs more new houses.

The teacher encouraged the students especially, those who are shy since their thoughts may be wrong. A section of the teacher's dialogue is provided below.

Uygur: I think, the existence of a leader is bad. Let's say, we want to play soccer. But the leader wants to play piggy in the middle. It will be what the leader wants. So, the existence of a leader is bad.
Sabiha: I don't agree with Uygur. Uygur, you say that no need for a leader. So, no need for a president also.
T: You say that no need for a president also. Yes, Uygur. You may respond.
Uygur: No need to respond. My view is wrong.
T: We respect your opinion. We don't say it is wrong or something like at. Your opinion may be true also. However, you should support it.

As shown in the quote below, the teacher provided feedback to students to allow them to rethink their answers considering assumptions. Besides, he wanted students to make explanations.

T: What is the most correct way to decide together? Let's solve this issue in this lesson. Sabiha.
Sabiha: Kicking the killjoy out of the group.
Uygur: I agree.
Hasan: I agree.
T: Let's say you don't have that option. What would you do?
Ali: If we couldn't decide, we will make a test immediately. We will play a game.
T: Can you give some detail?
Ali: For example, brain puzzles. We would prepare brain teasers and accept the successful ones to join the group.

Reflection in the PwC method can be described as the teacher understands a thought that a student has difficulty in explaining and says to the student "do you mean ....". Reflecting improves the expression of thoughts and reinforces thoughts by repeating. Therefore, it is an important technique that a teacher should use in the PwC method. The quote regarding the use of reflection by the teacher is provided below.

Arslan: Sir, I believe that it is not for a penalty. For example, you can run over a person if you pass through a red light.
T: So, you say it is not for a penalty but to prevent damage to a person?
Arslan: Yes.
T: Could you give some detail? So, explain more, give an example.
Arslan: Sir, if you don't obey the rules, if you pass through a red light, you can run over a person and cause death. You will go to both jail and hell.
T: Ok, Arslan has a view from a different perspective. Sabiha.
Sabiha: Sir, it's for both penalty and prevent damage to person. If you pass through a red light, you can run over people walking across.

The dialogue below indicates the teacher's attitude regarding acting as a group member. Besides, as it can be seen in these dialogues, the teacher tried to be a model regarding organizing the students' views as a group member.

> *Sabiha: So, remember the Gölcük 1999 and Japan 2016. So, in 2016, they made these (showing the trusses in the classroom) stronger. In the past, for example, they didn't include iron between concrete. They couldn't find such materials in 1999. One of these places has advanced technology. The other one is a less developed place.*
> *T: You say that the year is important. There were no such materials in the past. All right, there are very old mosques and building in Turkey and they didn't demolish during the earthquake. How about that?*

As seen in these dialogues, it can be argued that the teacher progressed regarding facilitating thinking. The teacher mentioned this development in the quote given below.

> *"T: At first, I didn't allow questioning. For example, why this was done that way? It was done that way. No need to think deeply. However, we questioning now, such as why this was done that way? Because of this? What would be if it wasn't done such? How else it could be? In short, we ask more 'why' questions. Previously, I would have asked 'what' questions. I have changed from 'What is this?' to 'Why is that so?'. In fact, we have learned in the college that information should not be transmitted directly through the didactic method, that is, 'teach a man to fish' instead of giving fish. Especially, I noticed this after the philosophy lessons. However, in time, I get used to giving fish directly".*

As can be understood from the teacher's words, he was preferring to transmit information directly before he was introduced with the PwC method and he has no concern regarding the questioning. This finding indicated in the assessment of the current status also. Another theme related to the development of the teacher in the implementing PwC method is managing questioning (enquiring, discussion, or negotiation session) in the classroom.

Findings related to the managing questioning: Managing questioning includes the codes such as following the dialogue, directing the dialogue, noticing going beyond the subject and directing the discussion to the subject again, and making a summary. Following the dialogue is very important to continue questioning, increase the group's participating, and allow to discuss the different subjects for the PwC method. The authors believe that the teacher displayed an important development in this regard as shown in the following dialogue.

> *Nuran: For example, I would collect fruits and similar stuff from the trees in the forest to prevent starvation. Then I would build a cabin using woods. Then I suicide. Nobody would see me.*
> *(Nuran speaks again about 8 minutes later)*
> *Nuran: I've changed my find.*
> *T: So, you gave up suicide yourself. Why?*
> *Nuran: Yes, I have. Because I can find many solutions if I think.*
> *T: What is the main reason to change your mind?*
> *Nuran: Sir, you know, trees have wood. I would write "HELP" on them using stones and hang it. So, I can survive.*

As seen in the dialogue above, the teacher followed the view that Nuran argued about 8 minutes ago and asked her the reason to change her mind. In another example, he followed the dialogue between Nuran and Uygur and explained to Uygur what Nuran actually mean after saying they are similar thoughts. The teacher asked different questions to change the subject using the students' thoughts, directed the view to the classroom, and allowed them to join, therefore, he was able to direct the discussion to a different subject. A dialogue as an example is provided below.

> *Uygur: All very well but there are no rules!*
> *Nuran: Sir, he always says there are no rules.*
> *T: According to him, here are not. Isn't he right? He drank water from the fountain.*
> *Nuran: There are no rules from his perspective but the other person has, sir.*
> *T: Then what will be the solution? Wouldn't that be a problem? Ali, do you want to answer to Uygur?*
> *Ali: Yes.*

One of the most frequent situations faced during the implementation of the PwC method is that children tend to move beyond the subject always. Teachers should notice that immediately and warn students to direct discussion to the subject. The development on the teacher in this regard can be seen in the dialogue given below.

> *Sabiha: Because the fruits may be poisonous as Uygur said. Even they might be poisonous, the coconut shell is very hard. Nobody can put poison in it. I would eat them.*
> *Uygur: Well, Sabiha. But there are poisonous plants. They may open inside and put into them. However, there are other plants that naturally poisonous.*
> *Sabiha: Ok but you are the only person on the island, who can put poison inside them?*
> *Uygur: I say not only humans. There are plants that naturally poisonous.*
> *Sabiha: But those trees are not poisonous. I know those trees. They are not poisonous.*
> *T: Ok, this poison issue is beyond our subject. Let's focus on the actual subject.*

Another important technique for implementation of the PwC method, acting as an 'imaginary opponent' is used by the teacher sometimes to heat up the discussion when thinking is poor. A dialogue relating to this is provided below.

> *T: Can you give an example to the situation that intention is good but the behavior is bad?*
> *Uygur: Let's say, I want to buy flowers for my mother, my intention is good, however, I steal a person's bag.*
> *T: Hımm. Hasan, please think more.*
> *Hasan: Let's say, I want to help someone. However, I beat him up.*

(When some other students also gave similar examples, the teacher gave examples from his activity plan)
T: Ok, I will give an example also. Let's say, a mother beats up her child because he smokes. Now, is this mother good or bad? I think she is bad. Because she can talk to him.
Nuran: Sir, I do not agree with you. If this mother never breaks his kid's hearth, if she allows smoking, and therefore, you will smoke. And you will be sick when you grow up. Or, God forbid, you will die. So, your mother has to beat you up for your own good.
T: Could be any other way? Could she teach me without beating me up?
Nuran: I don't think so. So, you can yell at your kid. You can say 'Don't'. But, the kid would not afraid of these and continues his attitude.
T: So, is this mother good or bad?
Nuran: She is good.
T: She's good, right? Even she beats up her kid?
Nuran: Of course, she is good. This mother makes this for her kid's own good.

Towards the end of the implementation of an activity related to the PwC, different topics might come to students' minds. At this stage, the teacher should summarize the topics discussed and help students focus only on the main subject. Accordingly, the development of the teacher in this regard can be seen in the following dialogue.

T: All right, we started with the Vikings and continued with the uncle. We talked about our duties and responsibilities. Now, let's talk about the main problem. What might be the duties and responsibilities of children in the development of their country? Yes, Afşar.

T: Ok. Good. Now, let's talk about knowing and not knowing. Today, our subject in the Life Sciences lesson is the local authorities and administrators (writes on the whiteboard). Ok? We discussed whether fractions are important or not. So, learning this subject, is learning about local authorities and administrators important? What do you think?

The following dialogue displays the teacher's development regarding noticing the philosophic thought among the students' views.

Uygur: Sir, my aunt does not obey the rules either. Because he is a traffic cop. For example, I saw that he passes through red light when we are going together.
Bilge: Noo. Why don't they? They should obey also.
Fatma: Yes, sir. Cops should obey the rules, too.
T: Yes, that's correct, cops sometimes pass through red light. Hasan, do you want to answer?
Hasan: Yes. Sir, cops, fire trucks, ambulances carry lives, save lives. Should they stop to obey the rules? Should people die? Life or rules, which one is more important?
T: That is a question. That is a real philosophical question. Does anyone want to answer Hasan's question? (writes the question on the whiteboard) Life or rules, which one is more important?

As seen in the dialogue above, the teacher asks Nuran a question to organize her thoughts. The authors believe that the teacher displayed a development regarding being a role model in order to organize students' thoughts by asking questions. This development can also be seen in the dialogue below.

Nuran: Sir, I'm not agree with Uygur and Arslan.
T: Why?
Nuran: Sir, ok, we blame constructors because of the houses demolished, however, everything comes from God. You say because of constructors.
T: Ok, why such houses are not demolished in Japan?
Nuran: .....(She couldn't answer)
T: Ok, think a little more.

As shown in the dialogues above, the teacher displayed a significant development regarding the implementation of the PwC approach. This development can be seen also in the dialogue below.

"T: I can ask children questions. Children can explain their thoughts. I can create dilemmas. I can force children when their thoughts create a dilemma. That is, we can do philosophy with children. I know where to direct the subject using their answer to my question. So, I believe, I got the idea. At first, I had difficulties regarding estimating children's thoughts. I was open to any kind of thought. However, starting the fourth week, I realized that the children should be guided for correct thinking. I realized that a child should be guided to a dilemma, to a different context, not using answers but questions, when he does not think logically consistent. Or, when children don't participate, I tried to engage children in the conversation by asking personal questions or questions related to their past experiences. In the beginning, I implemented the plan strictly. However, starting the fourth week, I behave more relaxed on the following plan. At that moment, I feel good enough."

As can be seen in the interview records, the teacher indicated his development as he can able to manage the discussion, create dilemmas, guide the dialogue using the students' answers, as request them to organize their thinking. No doubt, the guidance tips included in the activity plans, training given to the teacher one day before the implementation, and feedbacks provided during recesses played an important role in the teacher's development.

Results and Discussion

Considering the data obtained in the current study, rather than a student-centered education method, a more teacher-centered education method was used in the class previously. In this method, the teacher over-relies on textbooks and the e-learning platform. Therefore, the teaching process is directly affected by these materials used by the teacher. Moreover, since the activities in the Turkish textbook prepared to facilitate thinking, we observed some teacher expression and attitudes that support thinking in the Turkish lessons. The teacher usually tends to guide students to the correct one and push them to find the correct answer in his mind. This tendency includes factors that restrain students' thinking. Besides, the teacher does not give students sufficient time to think.

Although the level and types of the questions asked to students are important regarding promoting students' thinking skills, the questions asked by the teacher limited with the lowest level of questions such as knowledge and reminder related questions.

In order to fix these issues, the teacher was supported by the researcher regarding the implementation of the PwC method. This support includes giving training, providing feedback during the recesses, providing relevant books, and giving a sample lesson. The authors found that supporting the PwC training with relevant books and giving a sample lesson provided a great contribution to the teacher's development regarding the PwC approach. Moreover, instant feedback was given to the teacher in the recesses during the practices also played an important role in this development.

The findings of the present study demonstrated that a teacher without any prior knowledge on thinking education or the PwC approach can display a significant development regarding the implementation of the PwC method when provided with correct support accompanied by the monitoring of the development process. No doubt, the teacher's interest, engagement, and curiosity on this regard is an important factor in his development. Authors believe that the teacher displayed a development in many areas as a practitioner of the PwC method. The results obtained in this study indicated that the teacher improved especially, regarding the facilitation of student's thinking by requesting students to justify their thoughts, requesting explanations, encouraging thinking, asking students to think hypothetically, requesting alternative views, doing reflection and giving students sufficient time for thinking. Many recommendations have been made for teachers or facilitators in the literature (Fisher, 2013; Gregory, 2008; Haynes, 2002; Lipman, Sharp, & Oscanyan, 1980). Haynes (2002) made suggestions to teachers who want to apply the PwC method based on the views he obtained from children.

These suggestions are about questioning, listening, choice, participation and inclusion, starting points, trust and approachability, support, comfort, security and attention.

In this study, it can be said that the teacher improved in the related suggestions.

The teacher should manage the questioning as a moderator during the implementation of the PwC method. Accordingly, the authors argue that the teacher displayed a development in following dialogues, directing a dialogue, directing the discussion to the main subject when it went beyond the subject, and summarizing. Moreover, since the PwC method is a dialogue-oriented approach, the teacher also showed development regarding preventing discourteousness in the classroom, promoting student-student dialogues, asking students to show that they are listening, and support students' participation. Furthermore, the evidence found in the current study that the teacher internalized his role on the PwC method since he acted as a group member, joined in the discussion as an imaginary opponent when needed, asked students questions to organize their thinking, and noticed philosophical thoughts among others. Consequently, the authors believe that the teacher adopted his role of the facilitator as a practitioner of the PwC method.

The results obtained in this paper revealed that the teacher displayed a great development as a PwC practitioner. The authors claim that the support provided by the researcher is played an important role. This support was similar to those three-stage model theoretically suggested by Lipman (1988) for teacher training on PwC practices. This model requires PwC practitioner candidates to study on activities thoroughly, to observe a sample lesson given by an instructor, and finally, providing feedback to the candidates' practices through observation by an instructor. Similarly, in the present study, the teacher was given training, he studied on the activities thoroughly, observed a sample lesson, and he was provided constant feedback by the researcher during the implementation process. Green (1997) stated that teachers need a detailed education plan and constant supervision to obtain maximum output from the PwC method. Moreover, Akkocaoğlu-Çayır (2018) argued that successful implementation of the PwC method requires a teacher-centered environment that analyzes the discussion and questioning processes. The statements given above support the findings of this study.

A literature survey revealed that very few studies have been reported focusing on the development of the teacher on the PwC approach. Akkocaoğlu-Çayır (2015b) found that the PwC method enables teachers to realize that a question may have multiple correct answers, many perspectives exist and these perspectives can be used in a classroom environment, and philosophy can be used as a method for this purpose. Another study carried out by Akkocaoğlu-Çayır (2018) indicated that teacher candidates who took the elective course of Philosophy for Children course showed positive changes in their views regarding knowledge, philosophy, and childhood.

In a study performed by Akkocaoğlu-Çayır (2018), teacher candidates were expected to develop PwC activities, implement these activities, and make self-evaluation. As a result, it was found that the teacher candidates have difficulties regarding

asking questions and managing the discussion. In the current study, no difficulties were encountered regarding asking questions since the questions prepared by the researcher are included in the activity plans. Besides, in the later activities, the teacher gained freedom regarding managing the discussion, took initiative beyond the plan, and asked his own questions. Moreover, he was able to notice the students' philosophical questions and directed these questions to the class. It is suggested that the constant analysis of the discussion and questioning processes, and providing feedback to the teacher are effective factors here. Similarly, in a study carried out by Akkocaoğlu-Çayır (2018), the analysis of discussion and questioning processes, and giving feedback to the teacher candidates during the teacher training were recommended for a successful implementation of the PwC method. The findings obtained in the present study are consistent with the results of previous reports. Furthermore, another important result obtained is deepening the steps for implementing PwC in schools suggested by IAPC (2020). The authors believe that the present study will make a significant contribution to both in-service teacher training and teacher education processes as it identifies the challenges that may be encountered in a such process and provides possible solutions.

Recommendations

Based on the results of the current study, the authors state that long-term training should be provided to teachers who will be introduced with the philosophy for children approach and an advisory service should be available during this process. Teachers should be supported by constant feedback. Moreover, the PwC method might be taken into consideration during preparing the textbooks and activities for teachers. New textbooks and activities related to the PwC method and the use of these materials should be encouraged. Considering the contributions to students of PwC education, pre-service teacher should be trained through PwC lessons. Rules of PwC session must be emphasized in the PwC training to be applied to students. Awards like the "Little Philosopher of the Week" should be included to motivate students during the sessions.

There are insufficient studies on the PwC method in Turkey. Therefore, the researchers studying in this field should be supported and new researchers should be encouraged to study on this field. Future studies should therefore include the development of the teacher and implementing PwC in the classroom. Longitudinal studies may be carried out to determine the long-term effects of the PwC method in Turkey.

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