The Use of Promoting Questions in Play Activities with the Playworld Approach in Kindergarten

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ABSTRACK
The current challenge for teachers is how learning in Kindergarten (TK) through play can help children acquire an understanding of a concept. This study aims to explain the use of promoting questions, identify the types of promoting questions that can help children understand a concept, and explain the process by which promoting questions help children understand the concept of "fermentation" through the play activity "Making Bread" using the Playworld approach. Data was collected through observation of 5 recordings of play-based project learning with the Playworld approach, with an average duration of 75 minutes per recording, observing the behaviour of nine children and one teacher. The data was analysed based on cultural-historical theory, which shows that the teacher used promoting questions during the children's play activities, both individually and in groups. These promote questions aimed at developing children's thinking abilities, such as "What are you doing?" and "Look, what is happening?" Additionally, teacher questions need to encourage and direct children to think to understand the material, such as "What is happening with the dough in that jar? Let's see, what is happening, does it smell?" Then the teacher asks, "What can you do with that dough?" The use of promoting questions helps maximise children's imaginative play into experiences that allow them to learn various subjects and understand the concepts of "fermentation, numbers and quantities, and shapes" in the "Making Bread" play activity with the Playworld approach. Promoting questions are used by the teacher when "playing" as the children's friend. The objectives of promoting questions can be categorised into (1) investigating further (explore), (2) expanding (extend), (3) involving or engaging (engage), and (4) reflecting. The implication of this research is the use of promoting questions as part of play pedagogy.

Keywords: play and playworld, project-based learning, prompting questions, Pancasila values

1. Introduction

Every citizen of the Republic of Indonesia is expected to embody the values of Pancasila in their behaviour. This expectation to reflect Pancasila values in daily conduct has become a current priority in national development. Additionally, the rapid advancement of science and technology in the era of Industry 4.0 or Society 5.0 demands high-quality human resources. As part of Indonesia's future human resources, students, including young children in kindergarten, are expected to have high motivation to progress and develop into internationally competitive learners with local cultural values. To achieve this, the role of educators as the frontline is essential (Wahyuningsih, Zuchron, & Purnawinarni, 2017).

Experts agree that to maximise the role of educators in character formation in children, a play concept supporting early childhood development is required. Therefore, learning should be designed in a form of play that aligns with children's characteristics (Wolfgang, Mackender, and Wolfgang, 1981; Roopnarine, and Johnson, 2005). Play-based learning designs are structured based on learning components (Jackman, 2009). The play needs of young children must be integrated with specific models, approaches, methods, and strategies (Yus, 2013; Yus and Winda, 2020). It is known that play and games are often marginalised in early childhood education institutions (Baumer, 2013), resulting in unmet play needs for children.

Play as an activity and learning strategy operates smoothly when supported by an organised play environment. Therefore, learning using play strategies and activities needs to be developed with the playworld approach (Baumer, 2013; Fleer, 2019), which accommodates the diversity of all children. The playworld approach provides opportunities for children to play with adults and peers, introducing them to human values (Hakkarainen and Bredikyte, 2020). Project-based learning should involve play activities and the organisation of the play environment (playworld). Such learning is anticipated to align with children's characteristics and developmental needs.

Kindergartens (TK) as early childhood education (PAUD) institutions conduct educational activities in the form of learning with various models to stimulate character development aspects (Nurhasanah, Yus, and Aman S, 2020), such as symbolic play models (Yus, Inayah Hanum, and A H Handoko, 2012; Yus and Kamtini, 2018), science learning models (Yus, 2017), and portfolio-based learning models (Kamtini, Yus, and Damaiwaty, 2017). Additionally, teachers are prepared to design character-based learning for early childhood (Yus, Gita, and Damaiwaty, 2020).

Referring to several research findings, project-based learning through play activities with the playworld approach is considered a viable learning strategy. This situation raises the question of how to design and implement project-based learning through play activities. However, field observations reveal that there is still a lack of teacher skills in posing fundamental questions to children during the learning process (Suryana, Resti, & Safrizal, 2021). With an appropriate design, project-based learning through play activities with the playworld approach can assist children in responding to the promoting questions posed by teachers.

2. Theoretical Study

2.1. Play-Based Project Learning with the Playworld Approach

Project-based learning originates from John Dewey's concept of learning by doing, which entails achieving learning outcomes through performing specific actions aligned with their objectives. The actions performed are primarily aimed at enabling children to master the process of doing a task, which consists of a series of behaviours to achieve a goal. Through project-based learning, children engage in various activities, providing them opportunities to

gain real-world experiences. Project-based learning also assists children in developing individual needs, interests, and strengths through various activities. These activities enhance their literacy and communication skills by allowing children to use various natural or engineered media. The experiences children gain help integrate attitudes, knowledge, skills, and values related to content from various disciplines (Katz & Chard, 2000).

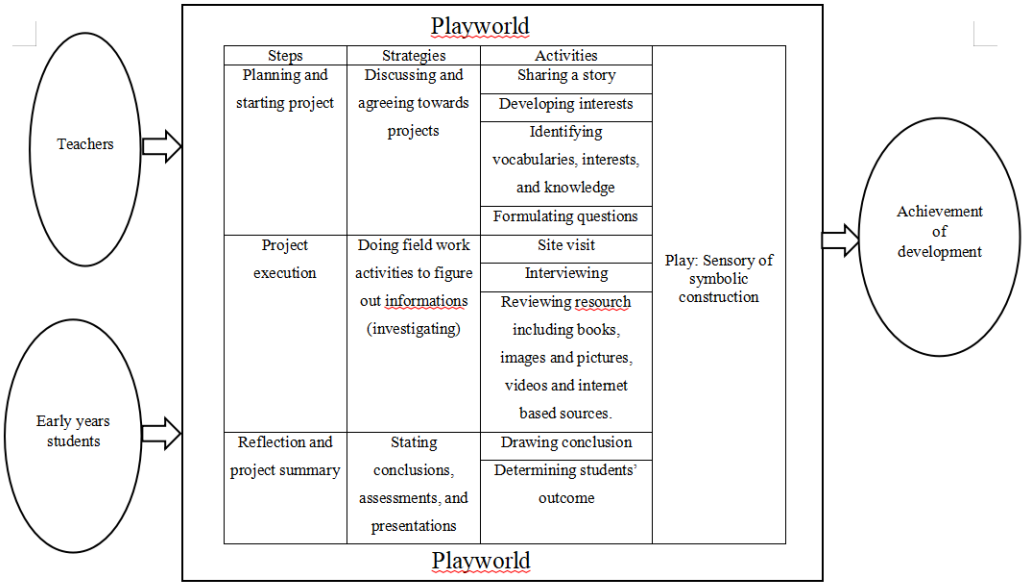
In project-based learning, teachers view children from the perspective of what they know how to do, the skills they have acquired, and how they can utilise these skills to achieve comprehended goals (Chard, 2014). Children, including kindergarteners, have a strong disposition to explore and discover. This disposition will thrive using a project approach built on children's natural curiosity, allowing them to interact, connect, communicate, inquire, problem-solve, reflect, and more (Katz & Chard, 2000). Such authentic project-based learning extends beyond classroom walls, providing opportunities for children to contribute in original and creative ways (Jane, 1998).

Project-based learning involves individual or group activities conducted over a certain period to produce outputs such as performances, presentations, or products. Katz and Chard (2000) outlined three stages of project-based learning: (1) planning and initiating the project, (2) implementing the project, and (3) reflecting on and concluding the project. Another perspective by Kalpana (2016) includes stages: (1) starting by developing children's interest in the project, (2) field visits, and (3) drawing conclusions. Both perspectives share similarities, suggesting that project-based learning can be applied to early childhood education.

Play significantly contributes to children's development. It is crucial for their growth (Tedjasaputra, 2001). During play, children observe, explore, investigate, and absorb everything happening around them (Yus, 2011). Specifically, play: (a) provides opportunities for children to know others, (b) develops their communication skills, (c) trains social skills, and (d) helps them form friendships. Social play particularly contributes to the development of abilities such as cooperation, helpfulness, willingness to share, playing with peers, teachers, and parents, respecting others, appreciating their own and others' creations, and contributing to the group (Milderd, 1935). Different forms of play are categorised based on cognitive development (Piaget, 1962) and social capabilities (Milderd, 1935). Three types of play are identified from these theories: sensory play, role/symbolic play, and constructive play (Wolfgang, 1981).

Almost all individuals involved in early childhood education agree that play is essential in learning (play pedagogy). This understanding highlights the importance of play as learning with the playworld concept. Playworlds are classroom interventions focused on emotional experiences through joint engagement with adults or teachers. Through playworld activities in drama, art, and literature, knowledge and experiences can grow, motivating children to engage in play and creativity.

Fleer’s Conceptual PlayWorld provides a model for teaching through play, particularly effective for science, technology, engineering, and mathematics (STEM). Based on over a decade of research, Fleer (2019) distinguishes between natural playworlds and engineered playworlds. Marilyn Fleer (2019) outlines five stages to create a playworld: (1) choosing a story, (2) designing the space, (3) entering and exiting the playworld, (4) planning problems to solve, and (5) determining the teacher’s role in the playworld. These stages are designed by the teacher, who makes the most appropriate agreements with the children working together. Based on the aforementioned description, a model of project-based learning through play activities with the playworld approach is illustrated in Figure 1 below.



Picture 1. Play-Based Project Learning Model

2.2. Prompting questions

Sulo et al. (1980:49) stated that in carrying out the teaching and learning process, teachers use questioning as one of the ways to communicate with students. Questions are part of one of the skill aspects in the teaching and learning process. The role of questions is very important in structuring a learning experience for students. Socrates believed that all knowledge will be known or unknown to students only if teachers can demonstrate good questioning skills in classroom practice (Helmiati, 2013:57). Well-structured and properly delivered questions will: (1) increase student participation in the teaching and learning process, (2) stimulate student interest and curiosity about the problem being discussed, (3) develop students' thinking and active learning methods, as thinking is essentially asking questions, (4) guide the thinking process of students, as good questions will help students find good answers, and (5) focus students' attention on the problem being discussed (Diatra, 2011). Therefore, teachers' questioning skills are highly needed so that children can delve into the activities they are engaged in and thus be able to construct their knowledge.

The questions posed by the teacher are the initial gateway for children to understand the learning process they are experiencing. The questions that arise must be able to guide children through the process they are undergoing and understand the final outcomes of the learning process to enhance their thinking abilities. Children must use clear and proper language when expressing their ideas to their teacher (Miranda, 2018). Teachers must be adept at creating an engaging learning atmosphere to avoid monotony. Understanding questions and answer methods means that teaching is conducted with the teacher asking questions and children responding (Oktaviana, et al., 2023). Some promoting questions including (Marletta Iwasyik, 2006; Ingrid Chalufour & Karen Worth, 2003):

1) Questions to encourage children to observe, explore, manipulate:
   (1) What do you see?
   (2) What do you hear?
   (3) What does it look like?
   (4) What can you smell?

(5) How does it taste?
(6) What else makes you curious?

2) Questions to encourage repeated investigation:
   (1) Does it always happen? Look again, pay attention again
   (2) What will you change?
   (3) Would you like to do it again?
   (4) Will you get the same result when you do it again?
3) Questions to develop thinking skills:
   (1) What do you think?
   (2) What might happen if...?
   (3) Why do you estimate that...?
   (4) What else now?
   (5) Can you think of another way?
   (6) What is the conclusion?
4) Questions to encourage mastery of learning material:
   (1) What is it called?
   (2) What can we do with it?
   (3) What do you want to know about it?
   (4) What is it named?

These various questions posed can be categorised by purpose, nature, and method. Questions by purpose include cognitive questions, performance questions, consequence questions, and exploration questions. Questions by nature include memory, understanding, application, analysis, synthesis, and evaluation questions. Meanwhile, questions by method include directing, probing, and prompting questions, each with its own characteristics.

3. Method

This study was conducted through the implementation of a play-based project learning model using the playworld approach, which consists of seven stages: (1) selecting a story to be applied in the playworld concept; (2) designing the play space in the science learning activity of bread making; (3) determining how to enter and exit the play space; (4) planning investigations during the play process or developing problem scenarios; (5) planning interactions; (6) project implementation; and (7) project reflection and conclusions. It is expected that prompting questions will emerge at each of these stages.

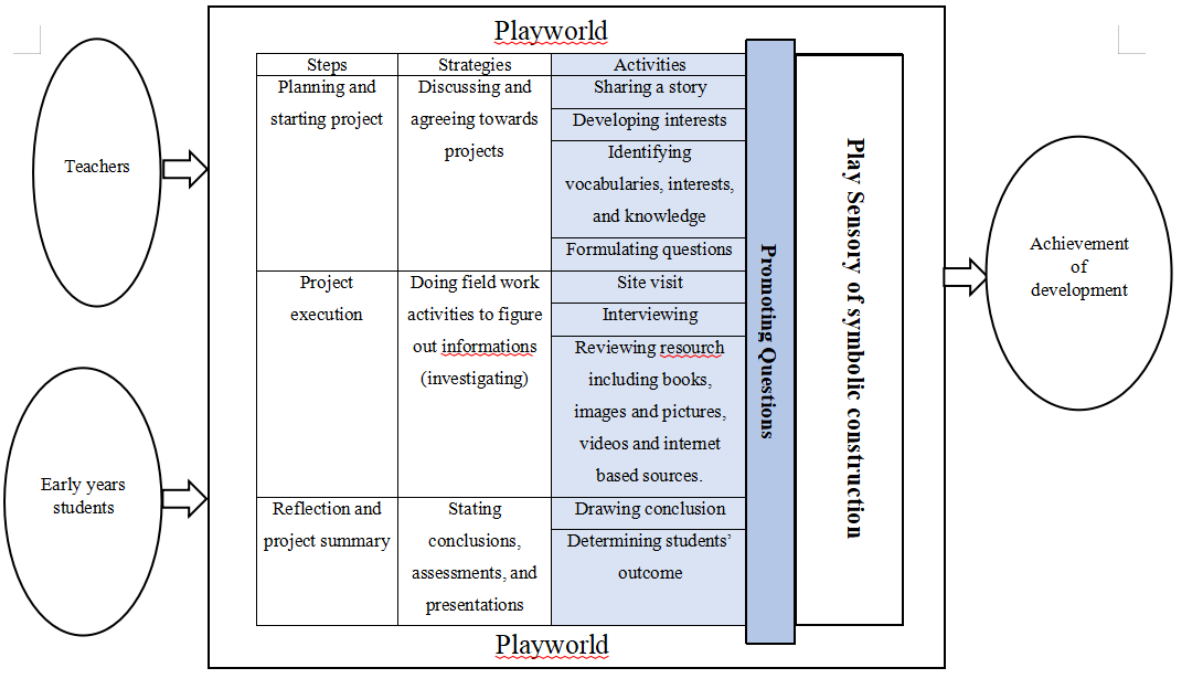


Figure 2. Project Learning Model Based on Play Activities with the Playworld Approach as a Strategy to Strengthen the Profile of Pancasila Students

In terms of research approach, this research employs a qualitative descriptive study focusing on the use of prompting questions, identifying the types of questions that can help children understand a concept, and explaining how prompting questions assist children in understanding the concept of "Fermentation" through the play activity "Making Bread" with the playworld approach. The research subjects are nine children and one teacher in five video recordings with an average recording duration of 75 minutes. The play-based learning model with the playworld approach in Kindergarten is the context. The research objects are the behaviours of nine children and one teacher. Data were collected using observations and followed by interviews with the teacher.

This paper uses data collected from one Early Childhood Education institution in North Sumatra, Indonesia, which utilises play-based learning with the Playworld approach implemented as an educational intervention. The learning activities in Kindergarten follow the Indonesian Early Childhood Education Curriculum Framework (Ministry of Education and Culture, 2014). One teacher and 9 children aged 5-5.8 years (average age of 5 years, 4 months) were invited to participate in this research. The teacher holds a bachelor's degree in early childhood education. The teacher has 7 years of experience in teaching children. Parents of the children in Kindergarten were informed, and full consent for video observation of each child was obtained from the parents after explaining the research to their children and asking them if they wanted to participate. Full consent was also obtained from the teacher.

Data collection was conducted in two periods of video observation and field notes. The data used for this paper consist of five (5) scenes, each lasting 75 minutes. These video observations document the interactions between the teacher and the children in the Playworld. Three cameras capture all interactions between the teacher and the children: the first camera follows the teacher, and the second and third cameras each follow the focus of the children. Interviews were conducted during two periods using open-ended questions, and selected video

recordings were used as prompts in each interview session to discuss what was implemented and what could be further developed.

The researcher conducted the first interview to obtain information about the teacher's conceptualization and implementation of prompting questions in play activities with the playworld approach. The interview asked how the teacher used prompting questions with children in play activities with playworlds approach. The second interview was conducted after implementing play activities using the Playworlds approach. This interview focused on the teacher's perspective, feedback, and comments on the use of prompting questions and their impact on acquiring concepts in play activities with the playworld approach.

The data obtained were analysed using the holistic analysis model by Hedegaard (2012), focusing on thematic interpretation. Prompting questions were analysed through interaction patterns in several play activities with the playworld approach, which were then linked to conduct in-depth analysis to determine the use of prompting questions, identify the types of prompting questions that can help children understand a concept, and explain how prompting questions assist children in understanding the concept of "fermentation" through the play activity "Making Bread" with the playworld approach. Thematic interpretation was applied to formulate findings based on theoretical interpretations using the analytical concepts of cultural-historical play, social development situations, and Playworlds. The application of these concepts allows the identification of the suitability of prompting questions with the activities and concepts used.

4. Results and Discussion

4.1. Result

Based on data analysis results that (1) teachers tend to use prompting questions directly addressed to the activities or products that children are working on. The observation results from video footage appear as follows.

> *The teacher sits down and joins a group (one of the groups consisting of 3 children) who are engaging in the "drawing" activity, observing the children's activities and worksheets. The teacher asks the first question, "what are you drawing?" One child who is drawing responds by saying they are drawing a person. "Ohh" (teacher's response). The other two (2) children immediately cover their drawing papers. The teacher responds by asking, "why are you covering it?" and says, "let me see." The child opens the palm of their hand covering their drawing, and the teacher asks again, "what are you going to draw?" The child remains silent. The teacher continues by asking, "what are you thinking?" You can draw anything you want, you know.*

(2) In the playing process, the teacher asks questions two to four times to one group of children. Not all questions asked by the teacher help the children understand or grasp the concepts of numbers, measurements, shapes, and fermentation (in this study, the learning activity "Making Bread"). The questions asked by the teacher in a classical manner almost make the children silent, with them just looking at the teacher without any verbal response. It seems the children do not understand the direction of the questions. After the learning activity is conducted using a group approach, with a total of three (3) groups consisting of 3 children each and one group consisting of four (4) children, there is an indication that children tend to easily understand the teacher's questions and the teacher's questions lead to increased activity to produce something (in this case, drawings, and there is a group drawing a chef wearing a cooking apron). From the video recordings, it is known that some questions asked by the teacher initially failed to

prompt the children to respond. After the teacher initiated the questions by recalling listening and question-answer about the content of the story (The Bread), the children began to respond, showing an acquisition of concepts consisting of size, quantity, numbers, and the fermentation process. The observation results are as follows.

> *....From three video recordings, it is known that the teacher directly asks a question, as follows: "Okay, friends... what are you making now?" All the children remain silent without giving any verbal response. Two children just turn to look at their friends. In the recording after the children are divided into three (3) groups, the teacher approaches one group and asks, "Do you still remember what I told you yesterday?" "What was the story about?" "Yes, Fitri, the story was about bread." Another question, "Do you remember what the story was about? The ingredients for making bread." "Do you remember how to make it?" "Yes, Miss," Fitri says. The teacher: "Can you tell me, Fitri?" "Yes, Miss," Fitri replies. "Take flour with this cup measurement, add water and put this in, and stir until smooth," Fitri says. "What is that for?" the teacher asks... the children are silent... "Come on, try to remember again, what did we make yesterday?" says the teacher. "This, Miss," says Rizal. "Yes... that's right," says the teacher....*

(3) The prompting questions provided by the teacher have successfully helped five children understanding the concept of "fermentation" through the play activity "Making Bread" using the playworld approach. However, the other four children still need to be given different questions to assist them. After repetition, only two of the four children successfully understood what fermentation is in the context of making bread. Therefore, from the results of this five recordings in this project-based learning, it is evident that the teacher is attempting to provide prompting questions to the children to ascertain more clearly whether they understand the concepts of fermentation, numerical concepts, quantity, and shape during the play activity of Making Bread through the playworld approach.

4.2. Discussions

The use of prompting questions in project-based learning models with play activities using the playworld approach is directly related to children's learning activities and creations. Questions can be directed to groups and individuals (Hamel, et al.: 2020). Thus, the use of prompting questions is given to children to determine whether they are engaging in activities and creating works, both individually and in groups, describing children's activities individually. The types of prompting questions used by teachers, in both open and closed forms, are related to the activities performed by the children. The types of questions that arise help children understand what activities and works they are creating. Questions can be presented in both open and closed formats (Hamel, et al., 2020). Additionally, prompting questions can be used for both scientific and non-scientific materials. Children's activities tend to lean towards scientific activities, although there are some activities that involve non-scientific material. Prompting questions related to this material can also be provided (Hamel, et al., 2020).

Prompting questions can help children understand concepts related to play activities with a playworld approach. These questions should be designed to be relevant to the context and content of the case study (Murray, 2020). Prompting questions posed by teachers refer to knowledge exploration and further learning for children during project-based play activities through the playworld approach. Prompting questions encourages children to expand their knowledge related to the activities they are engaged in. Moreover, prompting questions involve

children in the activities they are participating in, encouraging them to think, theorise, and develop their interests in playing (Kashim, 2021).

5. Conclusion, Implication, and Recommendation

This study helps teachers in providing prompting questions seen from the perspective of their usage, types, and nature, as well as prompting questions as drivers to help children think and understand theories and concepts in play activities with the playworld approach. Playworld can be used as a pedagogical model for conceptual learning for children in Indonesia. Prompting questions can be given at each stage of the learning model with play activities using the playworld approach, directed towards individual or group of children who are engaged in learning activities or creating works. The prompting questions used can take the form of open-ended and closed-ended questions, and these questions can also contain both scientific and non-scientific content. The prompting questions used by teachers help children understand concepts or content.

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