Developing Early Childhood Curiosity: Experiental Learning within the Framework of Constructivist Philosophy

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Keywords:	ABSTRACT
Child Development, Constructivism, Early Childhood, Education, Experiential Learning	This research aims to analyze the development of early childhood curiosity through experiential learning within the framework of constructivism philosophy. A qualitative approach with a literature review design is used to explore in-depth data from various sources, such as scientific journals, reference books, and reliable articles relevant to the concept of constructivism, early childhood development, and learning strategies. Data analysis techniques followed the Miles and Huberman model, including data reduction, data presentation and conclusion drawing. The results show that the implementation of constructivism philosophy can be done through project-based learning methods, playing while learning, guided discussions, and the use of props. Direct experience has an important role in stimulating children's curiosity, improving cognitive abilities, and developing social skills. A learning environment that supports exploration, freedom to experiment and collaboration between students is a key factor in the success of this approach. Learning media such as pictures, videos and props are also effective in enriching children's learning experience. Reflection on the learning experience helps children connect new knowledge with existing ones, creating a strong representation in memory. This research makes a social contribution by emphasizing the importance of positive interactions between children, parents and teachers in creating an inclusive and collaborative learning environment. Such collaboration not only stimulates children's curiosity but also hones their communication, empathy and cooperation skills, which ultimately support their development as active and adaptive individuals in society.
Kata Kunci:	ABSTRAK
Anak Usia Dini, Konstruktivisme, Pendidikan, Perkembangan Anak, Pembelajaran Berbasis Pengalaman	Penelitian ini bertujuan untuk menganalisis pengembangan rasa ingin tahu anak usia dini melalui pembelajaran berbasis pengalaman dalam bingkai filsafat konstruktivisme. Pendekatan kualitatif dengan desain kajian kepustakaan digunakan untuk menggali data secara mendalam dari berbagai sumber, seperti jurnal ilmiah, buku referensi, dan artikel terpercaya yang relevan dengan konsep konstruktivisme, perkembangan anak usia dini, serta strategi pembelajaran. Teknik analisis data mengikuti model Miles dan Huberman, meliputi reduksi data, penyajian data, dan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa implementasi filsafat konstruktivisme dapat dilakukan melalui metode pembelajaran berbasis proyek, bermain sambil belajar, diskusi terbimbing, dan penggunaan alat peraga. Pengalaman langsung

memiliki peran penting dalam merangsang rasa ingin tahu anak, meningkatkan kemampuan kognitif, serta mengembangkan keterampilan sosial. Lingkungan pembelajaran yang mendukung eksplorasi, kebebasan bereksperimen, dan kolaborasi antar siswa menjadi faktor kunci keberhasilan pendekatan ini. Media pembelajaran seperti gambar, video, dan alat peraga juga efektif dalam memperkaya pengalaman belajar anak. Refleksi terhadap pengalaman belajar membantu anak menghubungkan pengetahuan baru dengan yang telah dimiliki, sehingga menciptakan representasi kuat dalam ingatan. Penelitian ini memberikan kontribusi sosial dengan menekankan pentingnya interaksi positif antara anak, orang tua, dan guru dalam menciptakan lingkungan belajar yang inklusif dan kolaboratif. Kolaborasi tersebut tidak hanya merangsang rasa ingin tahu anak tetapi juga mengasah kemampuan komunikasi, empati, dan kerja sama, yang pada akhirnya mendukung perkembangan anak sebagai individu yang aktif dan adaptif di masyarakat.

INTRODUCTION

Developing curiosity in early childhood is an important step in building a foundation for lifelong learning. The philosophy of constructivism offers a very relevant framework to support this process, as it focuses on the child's direct experience and active interaction with the surrounding environment. In the constructivist approach, children not only passively receive information but create their own understanding through exploration, observation, and reflection (Fariza & Kusuma, 2024). Data from a study conducted by the National Association for the Education of Young Children (NAEYC) shows that children who learn through experiential methods have 30% higher cognitive abilities than those who use traditional methods (Doychinova, 2023). In addition, a longitudinal study conducted in Finland over five years found that children who were encouraged to explore their world independently tended to score better on creativity and problem-solving tests (Shih, 2022). In late childhood, such children also show a greater tendency to ask questions, experiment, and engage in intellectual discussions. Through this approach, teachers and parents can create an environment that stimulates children's natural curiosity, such as providing exploratory materials, asking open-ended questions, and providing space for children to draw their own conclusions (Jirarattanawanna, Vattanaamorn, & Kwalamthan, 2024). UNESCO data in 2022 shows that 75% of children who learn in constructivism-based systems manage to achieve critical thinking skills by the age of 8, while this figure is only 50% in children in traditional learning systems (Doolittle & Camp, 1999). Therefore, the constructivism approach is not only effective but also essential in helping children develop their intellectual potential optimally.

The trend of research on Developing Early Childhood Curiosity: Experiential Learning in the Framework of Constructivist Philosophy shows that despite a number of relevant studies, this theme still leaves a research gap that has not been fully answered

by previous researchers. (Sulthon, 2018) and (Dodi, 2016) discuss constructivist approaches as a method to improve the quality of early childhood learning, but their main focus is more on general aspects such as cognitive or social development, without delving deeply into how these approaches can be used specifically to stimulate curiosity through hands-on experience. (Oktaria, 2013) highlights the implementation of learning approaches in early childhood education, but does not explicitly explain the relationship between experiential learning and the philosophy of constructivism. Meanwhile, (A. Damayanti, 2014) emphasizes the importance of early childhood creativity, but less associates it with learning strategies that focus on developing curiosity through active interaction with the environment. Moreover (Kartini & Waridah, 2018) discusses thematic learning, but does not specifically explore how this model can be integrated with the principles of constructivism to build a child's curiosity. Thus, although there is some research supporting the ideas of experiential learning and constructivism, this theme still leaves a research gap especially in connecting the philosophy of constructivism with concrete strategies for developing early childhood curiosity holistically. This shows the need for further research to fill the gap.

This research aims to answer three problem formulations that focus on the application of constructivism philosophy in learning to develop early childhood curiosity. First, this study will examine how the concept of constructivism philosophy according to Jean Piaget can be implemented in early childhood learning. Constructivism emphasizes that knowledge is actively constructed by individuals through interaction with their environment. In this context, the stage of a child's cognitive development becomes the basis for designing learning that encourages exploration and curiosity. Second, this study aims to understand the role of direct experience in learning as a way to stimulate children's curiosity based on the perspective of constructivism. Direct experience provides an opportunity for children to learn through observation, experimentation, and reflection, so that they can build understanding independently and stay motivated to explore new things. Third, this study will identify effective learning strategies or methods within the framework of constructivist philosophy to develop early childhood curiosity. Methods such as project-based learning, play while learning, guided discussions, and the use of props are expected to create a learning environment that supports exploration and problem-solving. Thus, the results of this study are expected to provide practical insights for educators and curriculum developers to create an innovative, interactive, and supportive learning environment that supports the development of children's curiosity from an early age, as well as improving the quality of learning in the context of early childhood education.

METHODS

Research with the aim of analyzing the development of early childhood curiosity through experiential learning within the framework of constructivist philosophy requires a qualitative approach with the design of literature review because of the exploratory and theoretical nature of the research. The qualitative approach provides space for researchers to delve deeply into the philosophical concepts of constructivism, especially

Jean Piaget's view of children's cognitive development, as well as how direct experience can stimulate children's curiosity. The design of the literature review was chosen because the focus of this research is to examine relevant theories, scientific ideas, and literature as a basis for answering the problem formulation. This study allows researchers to develop a comprehensive conceptual framework without having to conduct direct field research (Indah & Sulistiyono, 2025). The data collection techniques used in this study include documentation studies, which are collecting primary sources such as scientific journals, reference books, articles, and papers related to constructivism, early childhood development, and experiential learning strategies (N. Sari, Armanto, & Anim, 2021). In addition, the researcher also uses content analysis techniques to explore and interpret data from these sources in a systematic manner. With this approach, research is expected to be able to produce in-depth understanding and provide theoretical insights that can be used as a practical foundation for educators in designing effective learning to develop early childhood curiosity.

In literature research on the development of early childhood curiosity through experiential learning within the framework of constructivist philosophy, data validity techniques and data analysis refer to the Miles and Huberman model. For data validity, the researcher used source triangulation by comparing information from various literature such as scientific journals, reference books, academic articles, and other reliable documents relevant to the concept of constructivism, early childhood development, and experiential learning strategies (Azizah, 2024) . This triangulation aims to ensure the accuracy and consistency of the data used, so that the research results have a strong theoretical foundation. In addition, cross-checking between one theory and another is carried out to avoid interpretation bias. The data analysis technique follows Miles and Huberman's steps, namely data reduction, data presentation, and conclusion drawn. In the data reduction stage, researchers filter information from literature sources to focus on key themes such as the concept of constructivism according to Jean Piaget, the role of direct experience in stimulating children's curiosity, and effective learning methods. Furthermore, at the data presentation stage, the information is organized in the form of a narrative or thematic table to facilitate interpretation. Finally, at the conclusion stage, the researcher compiles a synthesis that connects the findings with the research objectives, so as to produce an in-depth understanding that can be used as a theoretical and practical reference for educators in developing early childhood curiosity (C. Damayanti & Prasetyono, 2022).

RESULT AND DISCUSSION
Implementation of the Constructivist Philosophy in Early Childhood Learning according to Jean Piaget

The philosophical concept of constructivism according to Jean Piaget emphasizes that knowledge is actively constructed by individuals through interaction with their environment. In the context of early childhood learning, the application of constructivism means creating a learning environment that supports exploration and hands-on experience. According to Piaget, children experience cognitive development through certain stages, such as sensorimotor, preoperative, concrete operational, and

formal operational. At an early age, children are at the sensorimotor and preoperational stages, where they learn through the senses and symbolic understanding (Maenonah, 2020). Therefore, educators need to design learning activities that are appropriate to this stage of development, such as play activities, nature exploration, or the use of concrete objects to support the learning process. These activities allow children to build knowledge through direct experience and interaction with the world around them. Thus, the implementation of constructivism in early childhood learning focuses not only on the delivery of information but also on creating space for children to ask questions, explore, and build their own understanding (Handayani & Adnyana, 2024). With this approach, children not only understand knowledge theoretically but also practically, which strengthens their learning.

A learning environment that supports exploration is one of the important aspects in the implementation of the constructivist philosophy. Early childhood has a high curiosity about the world around them, so the learning environment must be designed in such a way that it can encourage them to explore new things. For example, a classroom can be equipped with a variety of concrete objects such as blocks, educational toys, or simple tools that can be used to experiment in person. This is in line with the concept that games function as a vehicle for children's learning and development (Page & Eadie, 2019). In addition, outdoor environments such as playgrounds or natural play areas can also be used to provide direct experiences to children. Through this exploration, children not only learn about the physical world but also develop motor, cognitive, and social skills. In other words, a learning environment that supports exploration is the main medium for children to actively build knowledge in accordance with the principles of constructivism.

Play is one of the most effective learning methods in the context of constructivism, especially for early childhood. According to Piaget, play is not just a recreational activity but a way for children to understand the world around them (Jing, 2017). Through play, children can explore simple concepts such as cause-and-effect relationships, object functions, or even social rules. For example, when children play with sand or water, they can learn about the texture, volume, and flow of liquids (Edwards, 2017). In addition, imaginative games such as pretending to be a doctor or teacher also help children understand social roles and develop symbolic thinking skills. Therefore, educators need to design play activities that are not only fun but also educational, so that children can actively build knowledge through hands-on experience. The combination of play and directed learning can create a science-rich environment, which is essential for a child's holistic development.

The use of media and teaching aids is also an important part of the implementation of the constructivist philosophy in early childhood learning. Props such as pictures, educational toys, or real objects help children visualize abstract concepts that are difficult to understand through verbal explanations alone. For example, to understand the concept of numbers, children can use blocks or beads to count and compare numbers (Triana, Sumardi, & Rahman, 2020). In addition, visual media such as images or short videos can be used to explain natural phenomena or processes of daily life. These media and teaching aids not only make it easier for children to understand the material but also

encourage them to actively interact with the learning materials. Thus, media and teaching aids are an effective means to support the principles of constructivism in early childhood learning (Katona, Venkataragavan, Nina, Ulrika, & Björn, 2022).

Nature exploration activities are a form of implementation of the constructivist philosophy that is very relevant for early childhood. Nature provides various phenomena that can be used as learning media, such as trees, insects, water, soil, and weather. When children are invited to play in the park or take a walk around the neighborhood, they can observe things firsthand, such as how leaves sway in the wind or how ants work together to carry food. Through this activity, children not only learn about the physical world but also develop curiosity and critical thinking skills (Zafeiroudi & Kouthouris, 2021). Nature exploration also helps children understand the relationship between humans and the environment, thus fostering awareness of the importance of protecting nature. Thus, nature exploration activities are one of the effective ways to implement constructivism in early childhood learning.

In the context of constructivist philosophy, the role of teachers is more facilitative than instructive. Teachers are tasked with creating a learning environment that supports exploration and provides opportunities for children to build knowledge independently. As a facilitator, teachers must be able to design learning activities that are in accordance with children's interests and developmental stages. For example, if a child is interested in animals, the teacher could provide a picture book about animals or invite the child to observe animals around the neighborhood (Sariyanti, Indarwati, & Darmawan, 2024). In addition, teachers must also be able to ask open-ended questions that encourage children to think critically and explore their own answers that are closely related to constructivism-based learning approaches that place students as the main actors in the teaching and learning process. Thus, the role of teachers as facilitators is the key to the successful implementation of constructivism in early childhood learning.

The philosophy of constructivism is closely related to the development of early childhood curiosity. Constructivism emphasizes that knowledge is built through hands-on experience, which means that children must be actively involved in the learning process. When children are given the opportunity to explore the world around them, they will start asking questions about the different things they encounter. For example, when children play with water, they may ask why the water is flowing down or how the boat can float. These questions are a manifestation of curiosity that develops through interaction with the surrounding environment which is further developed through an adaptive and participatory approach (Julia, Fitriani, & Setiawan, 2024). By providing answers based on hands-on experience, such as simple experiments, children not only satisfy their curiosity but also build a deeper understanding of the world around them. Thus, constructivism becomes an effective approach to stimulate and develop children's curiosity (Asri et al., 2024).

One of the effective learning strategies within the framework of constructivism is project-based learning. This method allows the child to investigate a particular topic in depth through a series of activities related to real life. For example, if the learning theme is "plants," the child could be invited to plant the seeds in a small pot, observe their growth daily, and record the changes that occur. In addition, children can also create

pictures or stories about the plants they are growing. Through project-based learning, children not only learn about scientific concepts but also develop skills such as observation, analysis, and reflection that are essential for the development of their critical thinking skills and creativity (Fariza & Kusuma, 2024). This strategy also provides opportunities for children to work together with their peers, thus developing social skills. Thus, project-based learning is one of the effective ways to implement constructivism in early childhood learning because it integrates practical experience and collaboration, which is essential for holistic learning.

Social interaction plays an important role in constructivism-based learning. According to Piaget, interaction with others, both peers and adults, helps children build a more complex understanding of their world (Erawati & Adnyana, 2024). For example, when children discuss with their peers about the results of their experiments, they can exchange ideas and enrich their understanding. In addition, interaction with the teacher is also important, because the teacher can provide guidance or questions that encourage children to think deeper. This social interaction not only helps children build knowledge but also develops communication and cooperation skills. The emphasis on social experiences in learning is in line with the principles of constructivism that promote active engagement and interaction in the learning process Thus, social interaction is one of the key elements in the implementation of the constructivist philosophy in early childhood learning (Rohmawati, 2018).

In addition to helping children build knowledge, the implementation of constructivism philosophy can also be used to shape early childhood character. Through exploration, play, and social interaction activities, children learn values such as curiosity, independence, cooperation, and responsibility. For example, when children are invited to take care of plants or clean up the environment, they learn about the importance of responsibility towards nature. In addition, play activities that involve cooperation with peers also teach children about the values of cooperation and tolerance (Rosnelli, 2023). Thus, constructivism focuses not only on the cognitive aspect but also on the formation of positive character. The implementation of this philosophy in early childhood learning can be the basis for the holistic development of the child, which includes intellectual, social, and emotional aspects and the application of the principles of constructivism in early childhood education is not only relevant to improve the academic aspect but also to ensure healthy and balanced character development (Fadlillah & Fauziah, 2022).

The Role of Direct Experience in Stimulating Children's Curiosity

Direct experience is one of the most effective learning methods to stimulate early childhood curiosity. Based on the theory of constructivism, knowledge is not only received passively but is actively constructed by individuals through interaction with the surrounding environment. Children are curious creatures, and they learn by exploring the world around them. For example, when children play outdoors, they will observe various phenomena such as birds flying, moving winds, or falling leaves. Through these observations, they began to wonder about the reason behind the event. This process sparks their curiosity, which then encourages further exploration (Shah, Weeks,

Richards, & Kaciroti, 2018). Direct experience provides an opportunity for children to engage in fun and educational activities, so that learning becomes more meaningful and relevant. This process not only improves their understanding of the environment but also improves their skills in critical thinking and problem-solving, which is essential for their cognitive development.

Observation is one of the first steps in the learning process through hands-on experience. When children observe something, they begin to notice small details that adults often miss (Piaget, 1973). For example, when children play in the park, they may notice how the ants work together to carry food or how the soil feels moist after rain. These observations often raise questions such as "Why do ants work together?" or "Why does the soil get wet?". These questions are indicators that their curiosity is growing. Through observation, children not only absorb information but also begin to process it in their minds. This is important because the curiosity triggered by observation can be a strong motivation to seek answers through further exploration.

After making observations, children are usually interested in trying new things through experiments. This activity allows them to try to understand the world in their own way. For example, when playing with water, the child may try pouring water into a different container to see if the volume of water changes. Or, they may mix paint colors to see the results. Through experiments, children learn about cause-and-effect relationships and understand basic concepts such as gravity, volume, or color change. In addition, experiments also train critical thinking skills, children also learn about cause-and-effect relationships, which are important for their cognitive development (Ginsburg, Communications, & Health, 2007). They learn to make simple hypotheses, test them, and then evaluate the results. This process not only stimulates curiosity but also helps children develop a scientific mindset from an early age.

In addition to observation and experimentation, reflection is also an important part of learning through hands-on experience. After doing the activity, children tend to reflect on what they have done and learned. For example, after playing with wooden blocks and successfully building a tower, children may wonder why their tower collapsed or how to make it more stable. This reflection helps children relate new experiences to the knowledge they already have to create stronger representations in memory that can be remembered over a long period of time (Acosta & Haden, 2023). Through this process, their understanding of the world becomes more profound. Reflection also allows children to identify mistakes or shortcomings in their experiments, which then motivates them to try again with a different approach. Thus, reflection becomes a means to strengthen learning and stimulate further curiosity.

One of the main principles in constructivism is that new knowledge must be linked to the knowledge already possessed by the child. Direct experience provides an opportunity for children to do this naturally. For example, if a child already knows that water can flow, they may wonder if water can also move upwards. When they tried to use a straw to suck up water, they found that water could rise through the straw. This experience helped them expand their understanding of the concept of water flow. By connecting new knowledge with old knowledge, learning becomes more meaningful for children. They not only learn new facts but also build a more solid and organized

foundation of knowledge. Research shows that constructivism approaches in learning, including in the context of mathematics and science, create a more interactive learning environment and allow students to actively build their understanding (Mulyati, 2016; Sugrah, 2020; Pebriyanti et al., 2020). As students engage in exploration and discussion, they are able to construct new knowledge that relates directly to their experiences, thereby increasing engagement and learning outcomes.

The environment plays a big role in supporting hands-on experiences that stimulate children's curiosity. Environments rich in stimulation, such as parks, science museums, or even home kitchens, provide plenty of opportunities for children to explore new things. For example, in the kitchen, children can learn about the texture of foodstuffs, changes in shape when cooked, or the aroma produced by spices. All of this is a hands-on experience that is not only fun but also educational (Hartman, Miller, & Nelson, 2000). Parents and teachers can take advantage of this environment by giving children the freedom to explore, while still providing guidance and support. With a supportive environment, children's curiosity will grow, and they will be more motivated to learn. Experience in an engaging environment helps incorporate adaptive skills, critical thinking, and collaboration in their learning approach, which are essential for achieving academic success.

Freedom is an important element in stimulating a child's curiosity through hands-on experience. Children who are given the freedom to explore their environment tend to be more creative and innovative (Fitria & Djoehaeni, 2023). For example, when children are left to play with sand without strict instructions, they may create unique shapes or find new ways to build sand castles. This freedom allows children to learn from their own mistakes and develop confidence. However, this freedom must still be accompanied by safe limits so that children do not get hurt or damage the environment. By giving children enough room for exploration, they will feel more motivated to continue learning and seek answers to their questions, which strengthens the understanding of the importance of freedom in the context of early education (Catalano, Albulescu, Stan, Mestic, & Ani-Rus, 2023).

Direct experience has a significant positive impact on a child's cognitive development. Through activities such as observation, experimentation, and reflection, children learn to think critically, solve problems, and make decisions. For example, when children try to build a bridge out of wooden blocks, they should consider the balance, structure, and materials used. This process involves logical and analytical thinking, which is essential for their cognitive development (Keen, 2011). In addition, hands-on experience also helps children develop spatial, math, and scientific skills. Spatial skills, such as the ability to understand the relationships between objects in space, contribute greatly to achievement in science and mathematics subjects. These skills arise from the practical activities and interactions that occur during the learning process, all of which contribute to the formation of a strong intellectual foundation, which will help them in future learning

In addition to cognitive benefits, hands-on experience also helps children in social aspects. Many hands-on experiential activities involve interaction with peers or family members. For example, when children role-play at school or play with friends in

the park, they learn to share, cooperate, and negotiate. These interactions are important for the development of their social skills (Han & Hock, 2023) . Children also learn to respect the perspectives of others and understand that everyone can have a different way of thinking. Through hands-on experiences that involve cooperation, children learn not only about the physical world but also about complex social dynamics, including appreciation for the perspectives of others. Therefore, an educational approach that emphasizes play-based experiences and direct interaction can be strategic in facilitating the development of children's social skills, which in turn fosters their confidence and adaptability in a variety of social contexts (Taylor, Oberle, Durlak, & Weissberg, 2017)

Direct experience is one of the most effective learning methods to stimulate early childhood curiosity. Through observation, experimentation, and reflection, children can build their knowledge actively and meaningfully (Twomey & Westermann, 2018). Direct experience also helps children connect new knowledge with old knowledge, so learning becomes more profound (Astini, Gunawan, & Sriwarthini, 2023). In addition, these activities provide significant cognitive and social benefits for children's development, where the experience of play not only creates a fun but also educational environment, by allowing children to learn social values such as sharing and empathy (Bagea, Ausat, Kurniawan, Kraugusteeliana, & Azzaakiyyah, 2023) . By providing a supportive environment and freedom for exploration, parents and teachers can help children develop a strong curiosity, which will be the foundation for lifelong learning. Therefore, hands-on experience should be an integral part of early childhood education to optimize the child's learning potential (Ramadhan, Guswanti, Rahayu, Zalisman, & Akhyar, 2022).

Effective Learning Strategies and Methods in the Framework of Constructivism

Constructivism is an approach to learning that emphasizes that knowledge is obtained through direct experience and interaction with the child's environment. Effective learning, especially in early childhood, relies heavily on creating an environment that supports children's exploration and curiosity. Activities that promote exploration such as simple experiments in science and games that involve the introduction of mathematical concepts can train children's critical thinking skills and creativity (Fajriyah, 2021). This is in line with the findings that fun and contextual learning is necessary to attract children's interest and motivation, so that they can be actively involved in the learning process (Amalina, 2020). Through the constructivist approach, the learning goals are not only focused on mastery of facts, but also on the development of problem-solving and collaborative skills, which will be invaluable for the child's development in the long run (Fakhira, Parhan, & Kamil, 2020). In other words, this approach integrates generative learning to achieve the optimization of the educational process among students (Julia et al., 2024)

Project-based learning is an approach that is in line with the principles of constructivism because it allows students to delve into specific topics through practical experiences that are relevant to everyday life. By carrying out projects such as planting seeds and observing their growth, students not only learn basic concepts of biology but also engage in the process of observing, recording, and asking questions about the

phenomena they encounter, such as the discoloration of leaves or the way roots absorb air. This activity strengthens children's curiosity about the natural world and can be explained through research that shows that hands-on experience in learning increases student engagement and understanding (Reese, 2011). In addition, collaboration in the project encourages interaction between students, which is important in the development of social skills. Research shows that collaboration in small groups allows students to support each other in the learning process, improving individual and collective learning outcomes (Zambrano, Kirschner, Sweller, & Kirschner, 2019). Therefore, the application of project-based learning is not only beneficial in the academic aspect, but also in the improvement of students' social and emotional abilities (Sotto, 2021).

Play activities are an essential part of early childhood development, with many studies showing that playing while learning is a very effective method of stimulating their curiosity. In this context, play activities serve not only as a means of entertainment but also as a way to acquire basic knowledge and skills, including the concepts of shape, color, size, and cause-effect relationships. Through direct interaction with toys such as wooden blocks, children have the opportunity to explore the concepts of balance, gravity, and structure. Research has shown that involvement in play activities can strengthen the quality of interaction between parents and children, which in turn has a positive impact on children's cognitive and social development. In addition, educators are strengthened to take advantage of the comfort of children's play by providing educational toys that can help them learn in a fun way without pressure. This supports the idea that when children learn through play, they are not only more open to learning, but are also able to develop curiosity and confidence that contribute to their holistic development (Yunianti, 2020).

Guided discussion is another effective method within the framework of constructivism. This method involves interaction between the child and the educator or between the child and his or her peers to discuss a specific topic. For example, after doing a simple experiment about water, children can be invited to discuss what they observe and what they learn. These discussions help children articulate their thoughts, ask questions, and listen to other people's perspectives. In addition, guided discussions also train children's critical thinking skills, as they are encouraged to analyze information and make their own conclusions. With the right guidance, these discussions can be a means to deepen children's understanding of a topic while stimulating their curiosity (J Dewey, 1938).

Early childhood often has difficulty understanding abstract concepts because their thinking is still predominantly concrete. Research shows that at this age, children are still very dependent on real objects to understand mathematical principles. Therefore, the use of props such as educational toys, pictures, or real objects is essential in constructivism-based learning. Manipulative, such as blocks or beads, allows children to reach and feel physical objects while performing simple operations, thus helping them better understand concepts that were previously considered abstract. In this way, learning becomes more meaningful because children can make connections between new knowledge and their everyday experiences (Luen, Guo, & Jian, 2024). Educational tools in learning not only help children in understanding mathematical concepts but also

enrich their learning experience further.

The learning environment plays an important role in stimulating children's curiosity. Within the framework of constructivism, the environment should be designed in such a way that children feel free to explore and experiment. For example, a classroom can be equipped with various activity corners such as art corners, science corners, and role-play corners. Each of these angles provides an opportunity for children to explore their own interests and learn through hands-on experience. In addition, a supportive environment should also include materials that stimulate curiosity, such as storybooks, educational props, or natural objects such as rocks, leaves, and sand. By creating an environment rich in stimulation, educators can help children develop a strong curiosity and encourage them to keep learning (Epstein, 2007).

Collaboration is an important element in constructivism-based learning. Early childhood learns not only through interaction with the environment but also through social interaction with peers. For example, when children work together in groups to complete projects or solve problems, they learn to share ideas, negotiate, and listen to other people's perspectives (Johnson & Johnson, 1987). This process helps children understand that knowledge is not only built individually but also through collaboration. In addition, collaboration also trains children's social skills, such as teamwork, empathy, and communication. By encouraging collaboration in learning, educators can create an environment that supports children's curiosity development while preparing them to become productive members of society and able to contribute significantly (John Dewey, 1986) .

Reflection is an important step in constructivism-based learning, where students are actively involved in their learning process. After experiencing exploratory activities such as playing in the water, children need time to reflect on their experiences, for example by answering questions such as "What did you observe?" or "Why did it happen?" This reflection serves to connect new experiences with existing knowledge, which is in line with constructivist learning principles that emphasize the connection between new and old knowledge. A study shows that student learning journals can be used to help them reflect on their learning experiences, as well as as an evaluation for teachers in the learning process (Wahab, 2022). Further, reflection provides an opportunity for students to identify errors in their experiments, which can motivate them to try again with a different approach. This shows that reflection not only reinforces learning, but also stimulates curiosity and encourages further exploration.

In today's digital era, technology can be an effective tool to support constructivism-based learning. For example, interactive educational apps and animated videos have been shown to improve students' understanding of complex concepts, such as solar systems, in a visually appealing way (Trijayanti & Rosmiati, 2021). Research shows that the application of multimedia technologies, such as educational games and animations, is able to create a more active and enjoyable learning experience for students, which in turn increases their interest and learning outcomes (Santi & Astuti, 2020). However, the use of this technology must be done wisely so as not to replace the critical hands-on experience in the learning process. Methods such as physical manipulation in learning, where students can create a solar system model from simple

materials after using interactive applications, suggest that technology should be used as a complement to build a more holistic learning experience. In this way, technology helps students to understand abstract concepts while stimulating their curiosity to explore further, creating a learning circle that combines the utilization of technology and hands-on experience in Education.

Learning strategies and methods within the framework of constructivism are designed to stimulate early childhood curiosity through hands-on experience, social interaction, and self-exploration. Methods such as project-based learning, play-a-learning, guided discussions, and the use of props all support the principle that knowledge is actively built by children. According to Zulkarnaen et al., project-based learning can help children develop collaboration, initiative, independence, and critical thinking skills, in line with the principles of constructivism. In addition, Fajriyah emphasized the importance of a fun and interactive learning environment to encourage creativity and problem-solving in children, although her findings focused mainly on the role of parents and not on the context of the school directly (Fajriyah, 2021). By creating an environment that supports exploration and collaboration, educators can help children develop strong curiosity as well as critical thinking and creativity skills. The use of learning media also plays an important role in encouraging interest in learning. Media is a communication tool that can stimulate children's thoughts and attention, so that it integrates with the entire learning system. Intelligent technology integration, such as apps designed for early childhood, can enrich the learning experience without replacing the hands-on experience (Kurniasih, Wulan, & Hapidin, 2022). By implementing this strategy, educators not only help children build knowledge but also prepare them to become lifelong learners full of curiosity, as stated by Sari that project-based learning encourages the growth of independence and critical thinking skills (A. Y. Sari & Zulfah, 2017).

CONCLUSION

This research aims to develop early childhood curiosity through experiential learning within the framework of constructivist philosophy. Experiential learning, such as project-based learning methods, play-a-learning, guided discussions, and the use of props, has been shown to be effective in stimulating children's curiosity and improving their cognitive abilities and social skills. A learning environment that supports freedom of exploration with safe boundaries, collaboration between students, and the use of learning media such as images, videos, and props are key factors in the success of this approach. Reflection on learning experiences also helps children connect new knowledge with existing knowledge, thus creating strong representations in long-term memory. This study emphasizes the need for a holistic approach in developing early childhood curiosity optimally, both from cognitive, emotional, and social aspects. Thus, the concept of constructivism can be a guide for educators and parents to create a learning environment that stimulates children's natural curiosity throughout life.

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