

IMPROVING ABILITY TO KNOW GEOMETRY THROUGH BLOCK GAMES AGED 5-6 AT TKIT CENDEKIA

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Abstract. This study aims to find out how to develop children's creativity through geometric shape blocks in introducing geometry to children aged 5-6 years. In developing children's creativity through the use of geometric shape block media in this game activity there are 3 ways (steps) prepared by the teacher, namely: explaining and introducing various geometric shapes from the geometric block media used, providing guidance and direction through the activity of assembling blocks geometry so that it can become a form of buildings, this activity is carried out repeatedly so that children's creativity can be trained and can develop according to expectations so that children's creative ideas will emerge with stimulation through the use of geometric shape blocks as media. This study uses a class action research method (PTK) which is carried out through stages. The results of the pre-cycle research showed 42%. As for the first cycle, it achieved a presentation of 70%. Then in cycle II showed that 83%. It can be concluded that beam media can improve the ability to recognize geometry.

Keywords: Getting to Know Geometry, Block Media, Age 5-6 Years.

INTRODUCTION

The learning process in early childhood should be carried out with the aim of providing basic concepts that have meaning for children through real experiences that allow children to show optimal activity and curiosity (Sujiono, 2012). According to Montessori stated that in the age range from birth to 6 years, children experience a golden age, which is a period when children begin to be sensitive to receive various stimuli. The sensitive period for each child is different, along with the rate of growth and development of the individual child. This period is also the period of laying the first foundation for developing cognitive, language, movement-motor, and social-emotional abilities in early childhood. Based on Law no. 20 of 2003 concerning the National Education system relating to Early Childhood Education is written in article 28 paragraph 1 which reads "Early Childhood Education (PAUD) is organized for children from birth to 6 years and is not a prerequisite for attending basic education". Furthermore, in Chapter I article 1 paragraph 14 it is emphasized that early childhood education (PAUD) is a coaching effort shown to children from birth to the age of six which is carried out through the provision of educational stimuli to help physical and spiritual growth and development so that children have readiness in entering further education. Education for early childhood is the provision of efforts to stimulate, guide, nurture and provide learning activities that will produce children's abilities and skills. Education at this stage focuses on physical, intelligence/cognitive, emotional and social education. In accordance with the uniqueness and growth of early childhood, the implementation of education for early childhood is adjusted to the stages of development that early childhood goes through. Efforts for Early Childhood Education (PAUD) are not only in terms of education, but include efforts to provide nutrition and child health so that the implementation of Early Childhood Education (PAUD) is carried out in an integrated and comprehensive manner (Sujiono, 2012).

Early childhood is in the process of development (development) as a change that is experienced by every human being individually, and lasts a lifetime, from the time of conception to death. Hurlock argues that growth can also include psychological aspects if it gives rise to a new

function such as the emergence of the ability to think, symbolically, the ability to think abstractly, and the emergence of lust for the opposite sex. Thus development includes and is broader than growth, although not every change in the meaning of development is growth. Given that in early childhood it is easier to learn through play, it is necessary to use game methods that are fun and can stimulate all aspects of child development. Playing for children is a process in their growth and development to adapt to the environment as they age. So, a game for a child must contain elements from the stages of a child's motor movement, namely cognitive, affective and psychomotor, so that all aspects that support growth and development in the future will be formed properly (Saroinsong et al., 2022).

During their growth, children cannot be separated from games. Since childhood, they recognize that objects around them have the same shape as geometric shapes, such as circular coins, rectangular books, rectangular cupboards, circular balls and other objects used to meet their daily needs, and the need to play (Latif Mukhtar, 2013). Fun learning can be done with the concept of "learning while playing" or "playing while learning". Playing and games is one of the needs for early childhood and has an important role in all aspects of child development. Thus the child will learn to understand knowledge by interacting with the objects around him. The transition time required to pass each stage is quite long. Children do not move suddenly from one stage of cognitive development to another. Changes take several months or years in which children begin to build and integrate knowledge. A child may perform several tasks that indicate a stage of pre-operational thinking where he has performed another task in a very good way (Sujiono, 2012).

The results of observations made at TKIT Scholar, the learning methods used by teachers are still quite limited, the learning activities carried out at TKIT Scholar have not run optimally. The learning process in the classroom is still monotonous, namely the lecture method. One of the examples in teacher learning only mentions the name of the shape. Then the child is invited to imitate the name of the shape that has been called, without any questions and answers between the teacher and students so that the child becomes passive. Such a learning process will shape children to be inactive and innovative. Included in the ability to recognize geometric shapes in TKIT Scholar students is still low. Children do not understand about the concrete form of an object that is in accordance with geometric shapes. Based on the background described above, the researcher is interested in conducting classroom action research (PTK) by raising the title "Improving the ability to recognize geometry through block games aged 5-6 years in TKIT Scholars".

RESEARCH METHOD

The method used in this research is class action research or (Classroom Action Research). According to Suhardjono, classroom action research is research conducted with the aim of improving the quality of classroom learning practices (Sa'dun Akbar, 2008). Meanwhile, according to Sa'dun, classroom action research is an investigative process to solve class problems, and the process is carried out in cycles with the aim of improving the quality of learning and learning outcomes in class (Sa'dun Akbar, 2008). This research is a class action research (CAR). This study aims to describe what is currently happening, in which there are efforts to describe, record, analyze and interpret conditions that are currently occurring or existing. This research will describe efforts to increase the introduction of geometry through the method of constructive play for children in TKIT Cendekia.

Classroom action research in an effort to increase the introduction of geometry at TKIT Cendekia Purwakarta in 2 cycles. The action research model used in this study originates from Suharsimi Arikanto (2008), namely through four stages that are commonly passed, namely (1) planning, (2) implementation, (3) observation, and (4) reflection. This research was conducted in class B1 at TKIT Cendekia Purwakarta. This research was conducted because of the lack of ability to recognize geometry in class B1 TKIT Scholar. The research subjects were early childhood students of class B1 TKIT Scholar, totaling 12 students. Each cycle has 2 meetings. Where the pre-

cycle was carried out in 1 day, namely September 14, 2022. Then, cycle I was carried out in 2 meetings, then cycle II was carried out in 2 meetings.

RESULT AND ANALYSIS

The pre-cycle stage is the stage where the new learning media has not yet been implemented. Implementation of learning by playing block media in the pre-cycle for students of class B1 TKIT Scholar in this cycle, the material to be taught is the theme of animals. This stage aims to determine the activity and ability of students in an interest in recognizing geometric shapes. In this pre-cycle, information was obtained regarding problem-solving abilities and learning outcomes of class B1 students. Information about problem-solving skills was obtained from observations, so that it can be represented that 42% of children are not yet able to recognize various types of geometry.

In the first cycle of this stage, preparations were made for the procurement of learning tools I, it was seen that the lack of ability to recognize geometric shapes could not be carried out properly so that the learning outcomes achieved by students were not optimal. Based on the agreement of the collaboration participants, the action to be taken to improve student learning outcomes is by applying playing blocks to improve the recognition of geometric shapes in students. At this stage, the activities carried out are as follows: preparing learning media, namely geometric shapes in the form of pieces such as triangles, circles, rectangles, an introduction to the method of playing with blocks to the central teacher. As for the preparation of the steps in the learning process, such as the preparation of the daily study plan, the preparation of children's worksheets at TKIT Scholar, the preparation of assessment instruments.

Implementation of a simulation of learning to play with blocks, so that when learning takes place, both teachers and children have readiness to apply the playing with blocks method. In the implementation of teaching and learning activities for cycle I carried out in 2 meetings in class B1 with a total of 12 students. The learning steps are preliminary activities, core activities, and closing activities. Observations are made directly during the implementation of the action. Observations are made by observing the child's learning process, when the teacher explains and the output produced by the child, namely the child's reasoning ability to understand the teacher's explanation and then shows geometric shapes. The purpose of this observation is to find out the deficiencies and constraints experienced in the implementation of learning actions. Reflection is important to do so that the actions that have been taken can be analyzed, understood, explained and in the end, the observed data can be concluded. The data for this study were sourced from interviews, observations, and assessments of children's test results with predetermined criteria in the data analysis.

Based on the results of the first cycle of observations, not all students were active in applying the block playing method in recognizing geometric shapes. Only certain students are seen to be active in this activity by completing assignments according to the teacher's directions. Of course this can happen because some students do not understand the teacher's explanation through playing with blocks. From the results of observations of teacher activities in cycle I, it was shown that 70% of the children were familiar with geometric shapes and the children were very enthusiastic about practicing the game so that many children began to be able to recognize geometric shapes. The second cycle is a continuation of cycle I, cycle II is carried out to cover deficiencies and improve learning actions in cycle I. The process stages are no different from cycle I, starting with planning, implementing, observing and ending with reflection.

The planning steps in cycle II are similar to cycle I. At the core stage of the activities carried out in learning is to arrange repairs and identify problems that occur. This refers to the reflection results of cycle I. after the results are known, the next is to look for alternative solutions to solve the problem. Activities in cycle II were held in 2 meetings. Implementation of learning activities is the application of research planning such as preliminary activities, core activities, closing activities. Observations on teaching and learning activities are carried out in order to obtain

information about the results of observations relating to students' competence in recognizing geometric shapes. In this case, is the child able to show geometric shapes in a simple and real way in everyday life? In Cycle II, student activities went well, because the children already understood playing with blocks and the children already had the ability to recognize geometric shapes through playing with blocks. From the results of observations of teacher activity in increasing the ability to recognize geometry through playing blocks, the teacher has maximized in conveying material to children. However, when the teacher only does it at a glance and it is still lacking so that the material conveyed is still not understood by children. From the results of observations of teacher activities in cycle II, it showed that the percentage of 83% of children could recognize geometric shapes. Improved learning in cycle I to Cycle II showed a significant increase in learning completeness and encouragement regarding geometric shapes in children. This cannot be separated from the role of the teacher who helps and creates a conducive and effective classroom atmosphere. Learning steps using block media in early childhood at TKIT Scholar greatly support learning activities, managing class interactions, providing assessment of children's learning processes and outcomes. The effect of block media on the introduction of geometry in TKIT Scholar can be seen from the children's cognitive values which are quite good and increasing, besides that there is an increase in children's learning motivation because it is supported by media and fun learning.

CONCLUSION

Based on the results of data analysis and elaboration of the discussion on classroom action research that has been carried out, it can be concluded that the ability to recognize geometric shapes in children aged 5-6 years at TKIT Cendekia Purwakarta that the delivery of learning to recognize children's geometric shapes is still low with the limiting factor of using media in activities learning, so that this geometric block media is very effective in developing cognitive in children. It can be seen from the results of observations of teacher activity in pre-cycle getting 42%, then from the results of observations of student activities in cycle I it reaches 70% presentation, while in cycle II the development reaches 83%.

Based on the research process that has been carried out at TKIT Cendekia Purwakarta, there are several suggestions that can be submitted by researchers, namely: In learning activities, as a teacher must be more creative, innovative, and varied in applying appropriate learning media so that it can support children's abilities, especially in the ability to recognize geometric shapes, the school should provide more complete learning media for children so that in each teaching and learning activity it can be adjusted according to which media will be used so that learning looks more interesting and not monotonous.

References

- Sa'dun Akbar. (2008). *Penelitian Tindakan Kelas*. Cipta Media Aksara.
- Saroinsong, W. P., Kurnianingtyas, I., Dorlina, N., & Maulidiyah, E. C. (2022). Enhancing Preschooler's Gross Motoric Using Pocket Book-Flipbook Maker Based. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 6(4), 2825–2833. <https://doi.org/10.31004/obsesi.v6i4.1556>
- Sujiono, Y. N. (2012). *Konsep Dasar Pendidikan Anak Usia Dini*.