PATTERNED GAME DEVELOPMENT WITH FLOOR MEDIA TO IMPROVE MATHEMATICAL LOGIC INTELLIGENCE IN EARLY CHILDHOOD GROUP B OF EAST PURWOKERTO STATE KINDERGARTEN

1st Fariastuti[1]
{fariastuti72@gmail.com}
UIN Prof. K.H. Saifuddin Zuhri Purwokerto

Abstract
One of the goals of cognitive development of mathematical logic intelligence in early childhood is the ability to recognize various patterns. However, in this ability problems often occur such as recognizing and mentioning the sequence of patterns, children often forget and have to remember from the beginning so that children's abilities are said to be still low. Based on these problems, this study aims to improve the ability of mathematical logic intelligence through playing games with floor media for Group B TK Negeri Purwokerto out when the children are in class. Year, this learning development uses the subject of students at TK Negeri Purwokertothe order Timur, totaling 25 children. This learning activity is carried out when the child is in class, in the child's way line up and arrange the order in an orderly manner following the rules by jumping crank, crank jump so on the class nlooms. The results of the learning Mathematical Logical Intelligence in Children of the learning development show that the Pattemed Game with Media Then it can Improve Mathematical Logical Intelligence in children Group B TK Negeri Purwokerto Timur. Data on the percentage in crease in child success from the initial study to the end that is from the beginning of March there is also the month of March at middle school early and BB (Not Yet Developed) 15 children 60%, then in child habituation BB (not yet developed to 10 children/32 and in the Childhood Adolescent Study the 888 became non existent so that success became BSB (Development) greatly increased to 20 children/80% patterned games, floor media, mathematical logic
Keywords: Now patterned games, floor media, mathematical logic

INTRODUCTION

Children are a priceless gift, with various behaviors of children during their age become a special concern for parents. In the growth of Early Childhood, children will show attitudes and behaviors in imitating the habits of adults. Early Childhood according to the SISDIKNAS Law is a child aged 0-6 years. At this time is the most important phase in human life in terms of growth and development.

In this golden age range, children have several characters as capital to achieve optimal development. These characters include; strong curiosity and enthusiasm for many things, active and energetic, explorative and adventurous, happy and rich in fantasy, passionate about learning and learning a lot from experience. Based on the character of the child, learning using boring monotonous methods is contrary to the principles of learning that are appropriate for them, namely the pattern of education through play experiences. Playing is a basic right of early childhood. Playing is an activity of expressing oneself without coercion with a feeling of joy. In early childhood, playing can provide many benefits for their development. The meaning of playing can be interpreted as an activity that is carried out by both children and adults, while games are a type of activity that they want to play. By playing games, children can improve their aspects in an integrated and comprehensive manner. A safe and comfortable playing environment is needed by children for exploration and stimulation for growth and development.

Games and playing both have results or goals, such as winning or losing and all three have rules in carrying out their activities. Early childhood tends to play while learning, because by playing children learn various knowledge, skills and various other issues. Therefore, the development and stimulation of children's growth and development should be done through playing activities so that their motor skills develop optimally. There is no barrier between learning and playing. The opinion that develops by dividing the definition that learning is something serious, static, and sitting in the classroom. While playing is something that is not serious, dynamic, and done outdoors. Learning through playing and games can provide opportunities for children to explore, improvise, create, express feelings, and will produce new experiences and learn in a fun way. Playing can also help children get to know themselves and their environment. Early Childhood Education (PAUD) is an effort aimed at children from birth to 6 years of age which is carried out by providing educational stimulation to help physical and spiritual growth and development so that children are ready to enter further education (Suryadi, 2006: 82). However, the challenges during the Covid-19 Pandemic have provided an overview of the continuity of the world of education in the future through the help of technology. However, technology still cannot replace the role of teachers, lecturers, and learning interactions between students and teachers because education is not only about gaining knowledge but also about values, cooperation, and competence.

The pandemic is a challenge in developing creativity in the use of technology, not only the transmission of knowledge, but also how to ensure that learning is delivered well, training and instilling habits of being an independent

learner. The Covid-19 pandemic conditions also force policy makers in the field of education to be able to adapt in implementing the learning process. Almost all aspects of life are experiencing changes that are increasingly worrying. Almost all sectors are affected by this condition. Behind the sadness of the whole world, we must be able to take wisdom from this covid 19 pandemic. This covid 19 pandemic may come as a test for all of us, whether we are able to educate the nation's life even in conditions like this. In the implementation of education in early childhood, it has an orientation towards the development of religious, physical, motoric, cognitive, language, art and social emotional aspects.

Cognitive development is the development of the mind (Minnet. 1994). The mind is the part of the brain that is used to reason, think, and understand something. Every day a child's thinking will develop as they learn to communicate and try to gain more other experiences. Cognitive can also be interpreted as verbal ability, problem-solving ability and the ability to adapt and learn from everyday life experiences (Santrock, 2001). Thus, cognitive ability is actually always developing and is often referred to as more intellectual and intelligent.

METHOD

Based on the results of observations during KBM (Teaching and Learning Activities) using PJJ (Distance Learning) at Purwokerto Timur State Kindergarten, it turns out that learning in students is less than optimal, children tend to work on LKA (children's worksheets) and tend to only listen to what is explained by the teacher via vicall or via WhatsApp without using more varied and more concrete media so that children quickly get bored, pay less attention and sometimes do not understand/memorize. This causes children's ability to complete patterns sequentially, still low, so it requires improvement in these activities for students of Purwokerto Timur State Kindergarten. To solve this problem, it is necessary to improve learning through learning development, namely "Patterned Games with Floor Media to Improve Mathematical Logic Intelligence in Early Childhood Group B of Purwokerto Timur State Kindergarten, Purwokerto Timur District, Banyumas Regency, 2021/2022 Academic Year.

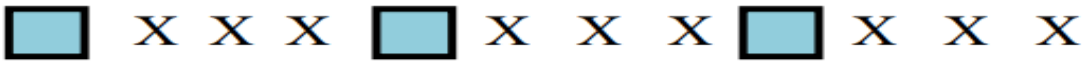
The choice to use this media is expected to attract more children's interest in learning to recognize mathematical logic well, when PTMT (Limited Face-to-Face Learning) is implemented and then becomes PTMT (Limited Face-to-Face Learning) 100% attendance of children. Problems that often arise in the implementation of learning activities to recognize patterns; namely children cannot distinguish shapes, colors and types of subsequent sequences. This condition is experienced in the implementation of activities to recognize patterns sequentially when children learn.

RESULTS AND DISCUSSION

The selection uses patterned floor media, initially from PTMT (Limited Face-to-Face Learning) children are only allowed 50% attendance at school. With

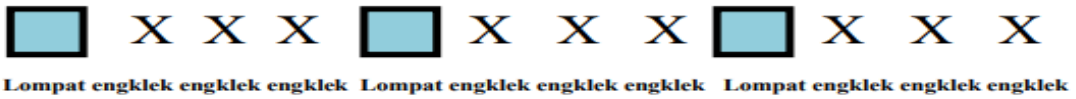
a schedule of children departing from one class divided into two groups and each group gets the opportunity to study 3 times a week. Requirements during the Covid-19 pandemic require children to comply with 5 M (washing hands with soap and running water, wearing masks, maintaining distance, avoiding crowds and reducing mobility).

The arrangement of children in complying with social distancing regulations / maintaining distance, so to facilitate cheerful morning activities and lines before entering the class, a mark is made with black duct tape on the floor with the following pattern:



Then after PTMT became 100% the existence of patterned signs on the floor was no longer used, because the number of each class of 25 children all went, it was not enough if we had to keep the distance according to the signs. So the idea was to use it as a learning medium to measure logical mathematical intelligence that children have not understood when learning online.

The social distancing signs are made to train children to recognize patterns well. = Jumping with two feet X = Hopscotch So the social distancing sign pattern is changed to:



The selection of patterned games with floor media is expected that children will be motivated by exploring children to understand and understand patterns sequentially with children doing direct experience. Patterned games with floor media to improve mathematical logic intelligence are adjusted to the theme and sub-themes. Teachers can teach various learning concepts. Children can recognize various logos/symbols, shapes, calculations and rules in pattern sequencing games. Educators need to realize that play is a tool, while the formation of a whole person is the goal. Play activities have many functions for the development of early childhood in addition to their needs. Catron and Allen (1999:148) state that the function of play for children is to develop the six aspects of child development which include aspects of self-awareness (personal awareness), emotional, social, communication, cognition and motor skills.

Through play activities, children will experience various emotional experiences, including: happy, sad, excited, disappointed, proud, angry and so on. Through play, children also understand the connection between themselves and their social environment, learn to socialize and understand the rules, rules of social behavior in community life. Floor: from Wikipedia Bahasa Indonesia, the free encyclopedia. The floor is the lower surface of a room or vehicle. Floors can

be made of stone, wood, bamboo, metal, ceramic, marble, granite, and other materials. The level of a building is often called a floor, although the actual meaning is level. [1] https://id.wikipedia.org/wiki/Lantai

Gardner (2003: 15) defines logical-mathematical intelligence as the ability to handle relevance or argumentation and recognize patterns and sequences. The advantages of this learning development are that children are trained to have a strong mentality and character. Children are taught to know themselves, control emotions and stress, manage time, be communicative and flexible with various situations, and be able to choose and make decisions. building independent and responsible nature and character through education in practical theory and more practice. Easy, cheap games that can be played at any time, and make children excited and cheerful. The disadvantages of this learning development: it requires a little more time allocation from the beginning to the end of the game because children are increasingly busy trying according to their turns. Based on the calculation of frequency and percentage of success rates from the beginning of the study, it shows an increase in the development of the ability to play sequencing patterns. At the end of the study, the level of development reached 80% Developing Very Well, 12% Developing According to Expectations, 8% Starting to Develop and Not Developing 0%. This can be seen in the graph below:

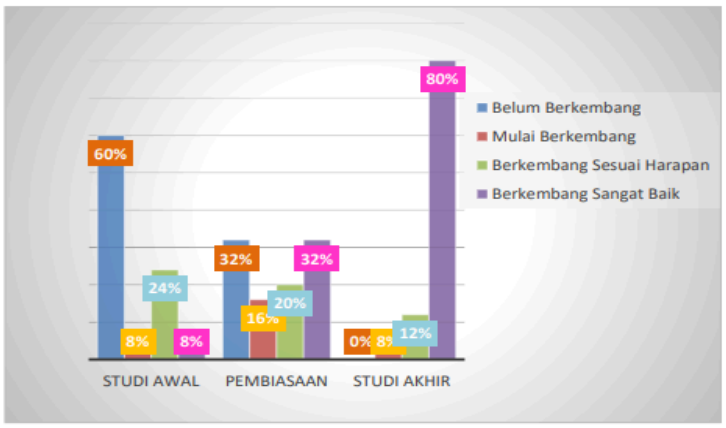


Figure I. Bar Chart of Percentage Learning Results from Initial Study to Final Study

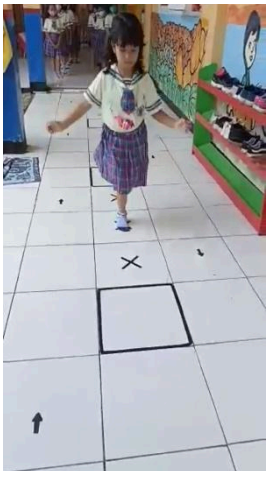
Figure II. Bar Chart of Results of Increasing Learning Frequency from Initial Study, Habituation to Final Study

Based on the diagram above, it can be seen that the ability to play sequencing patterns, group B semester II of Purwokerto Timur State Kindergarten for the 2021/2022 Academic Year in the Very Well Developed (BSB) category has increased from the Initial Study to the Final Study. From the Initial Study to Habituation, there was an increase in children who were BSH (Developing According to Expectations) from 8% (2 children) to 32% (8 children). From Habituation to the Final Study, there were no more children who were BB (Not Developing). So it can be concluded that from the Initial Study to the Final Study there was an increase of 80% (20 children).

Supporting factors for selecting the development of patterned game learning using floor media to improve mathematical logic intelligence include:
a. Support from all parties, both principals and teachers, so that a good relationship is established
good cooperation.
b. Spacious classroom layout, bright light and classroom and yard
clean so the atmosphere is pleasant.
c. Selection of appropriate methods and time allocation.
d. Facilities and materials
The supporting factors for its use are materials and tools that are easy to obtain, cheap, non-hazardous and safe to use.

1.1. *Figures*





CONCLUSION

Based on the above explanation, in general, traditional Kites contain values and mathematical concepts, and can be used as a fun learning medium. Kite games have mathematical elements, so they can be used as a medium for learning mathematics, especially in kite flat building materials. In addition, it can also instill character values in students. Indirectly, children are also taught to love and preserve traditional game culture.

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