

The Use Of Educative Game Tools (Ape) Flannel Boards To Improve The Cognitive Abilities Of Children Aged 5-6 Years At The Baiturrahman Tanjung Islamic Kindergarten

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Abstract

This research aims to improve cognitive abilities in young children, this is motivated by the underdevelopment of children's cognitive abilities in the aspects of counting and understanding the concepts of shape, size, pattern and color. Children are only able to sort numbers but are not yet able to match the numbers with the objects being counted or children are not even able to understand simple shapes such as geometric shapes, distinguish colors and sizes or shapes from one object to another, and are even familiar with the concept of patterns, children are still confused. . So this research aims to improve children's cognitive abilities through flannel board APE. The flannel board is a simple APE where all the numbers and pictures on the board can be disassembled and assembled, making it easier for teachers or children to play with it. The research method in this study is classroom action research by developing the Kemmis and Mc Taggart model. The data analysis technique is qualitative and quantitative data analysis. The class teacher as a collaborator with the researcher carries out activities together from start to finish. The research results cannot be generalized to every problem. The results of this research can contribute ideas to help answer problems. From the research conducted there was a significant increase in initial mathematical abilities in children aged 4-5 years, namely there was an increase from pre-cycle which only reached 16% to 50% and increased again in the second cycle reaching 66% up to the third cycle to 83.3% and it can be stated that the use of flannel boards can provide a solution to improve the cognitive abilities of children aged 5-6 years at the Baiturrahman Islamic Kindergarten in Tanjung, North Lombok

Keywords: Cognitive Abilities, Flannel Board Educational Game Tools.

Abstrak

Penelitian ini bertujuan untuk meningkatkan kemampuan kognitif pada anak usia dini, hal ini dilatar belakangi oleh belum berkembangnya kemampuan kognitif anak pada aspek membilang dan memahami konsep bentuk, ukuran, pola dan warna. Anak hanya mampu mengurutkan angka namun belum mampu mencocokkan angka dengan benda yang dihitung atau bahkan anak belum mampu memahami bentuk-bentuk sederhana seperti bentuk geometrid ,membedakan warna dan ukuran atau bentuk dari satu benda dengan benda yang lain bahkan terkin dengan konsep pola pun anak masih kebingungan. Sehingga penelitian ini bertujuan untuk meningkatkan kemampuan kognitif anak melalui APE papan flannel. Papan flannel adalah APE sederhana yang dimana semua angka dan gambar pada papan tersebut dapat dibongkar pasang sehingga memudahkan guru ataupun anak untuk memainkannya. Metode penelitian pada penelitian ini adalah penelitian tindakan kelas dengan mengembangkan model Kemmis dan Mc Taggart Teknik analisis data adalah analisis data kualitatif dan kuantitatif. Guru kelas sebagai kolaborator bersama peneliti melakukan kegiatan bersama dari awal hingga akhir. Hasil penelitian tidak dapat mengeneralisasi pada setiap permasalahan. Hasil Penelitian ini dapat menyumbangkan pemikiran untuk membantu menjawab permasalahan. Dari penelitian yang dilakukan ada peningkatan yang signifikan terhadap kemampuan matematika awal pada anak usia 4-5 tahun yaitu ada peningkatan dari pra siklus yang hanya mencapai 16% meningkat menjadi 50% dan meningkat lagi pada siklus II mencapai 66 % hingga pada siklus ke III menjadi 83,3% dan dapat dinyatakan bahwa penggunaan papan flannel dapat memberikan solusi untuk meningkatkan kemampuan kognitif anak usia 5-6 tahun di TK Islam Baiturrahman Tanjung Lombok Utara

Kata Kunci : Kemampuan Kognitif, Alat Permainan Edukatif Papan Flannel.

INTRODUCTION

Early childhood education is very important to optimize children's potential, this opinion is supported by(Suyatno, 2005, p. 5)that the aim of early childhood learning is to develop the child's full potential so that one day he can function as a complete human being in accordance with the

philosophy of a nation. So early childhood education is very important for children.

In the Early Childhood Education program, all aspects of children will be well stimulated by educators, be it motoric, language, social emotional, moral, religious and cognitive aspects.

One aspect that is an important focus in the world of PAUD is children's cognitive abilities. According to Piaget, cognitive abilities are the result of the relationship between brain development and the nervous system and experiences that help individuals to adapt to their environment (Robert, M, 2012)

In line with this, teaching in early childhood education is also emphasized on good cognitive development. Where cognitive development is the development of the mind. The mind is the thinking part of the brain, the part used for understanding, reasoning, knowledge and understanding (Susanto, 2011, p. 52).

The aspects of cognitive development in the child development achievement standards (STPPA) at the age of 5-6 years are divided into three, namely learning and problem solving, logical thinking and symbolic thinking. Where symbolic thinking is thinking using reasoning to know and understand through symbols. As stipulated in STPPA, in symbolic thinking, children aged 5-6 years can name number symbols and match numbers with number symbols. So media, APE and good learning techniques are needed so that children can easily remember each number symbol and match them. Matching is something that compares to find out whether something matches or not, where children are able to match shapes, colors, sizes, numbers, patterns, etc.

Children's cognitive development can be stimulated through learning while playing using APE, based on the results of research conducted by (Gaesang, 2021) that the basic abilities of early childhood in PAUD can be used through the use of educational game tools (APE) that are appropriate to the child's level of development and can support education in developing students' abilities at school. One of them is APE flannel board

Flannel board is a visual learning medium made from flannel cloth in various colors that are attractive to children. The flannel board is also an educational game tool (APE) which is designed to suit the needs of the learning process. The use of flannel board APE becomes interesting and useful if it is designed according to the child's needs or learning. This is in line

with opinion (Mulyati et al., 2019) which states that flannel board is a board covered with flannel board and the images that will be presented can be installed and removed easily and can be used successively. Meanwhile, according to (Nurhidayah, Wiryana, N., & Ujiti, 2016) Flannel boards are an effective visual medium for presenting certain messages to target students. So that the flannel board is suitable for children's learning by using the principles of early childhood learning, namely playing while learning and learning while playing. This APE was developed according to the child's developmental stages. So this APE is very appropriate to use to develop cognitive abilities in early childhood.

Based on the results of observations made, it can be seen that many children are still unable to match numbers and their number symbols, there are still some children who do not understand the concepts of size, shape and color and have difficulty connecting patterns. This is due to several factors and obstacles that exist at school, one of which is the lack of media or educational game tools at school so that students cannot explore their abilities. Another thing that is in the spotlight is activities that are monotonous and boring for children, namely providing LKS (student worksheets) as a medium for developing children's cognitive development. This worsens the condition of students in their cognitive development in general.

In connection with this, the author was motivated to conduct research with the title "Use of Flannel Board Educational Game Tools (APE) to Improve the Cognitive Abilities of Children Aged 5-6 Years in the Baiturrahman Islamic Kindergarten". The aim to be achieved is to determine the increase in cognitive abilities in children through the use of flannel board educational games (APE).

METHOD

The type of research used is Classroom Action Research. Classroom Action Research, namely research carried out by teachers in the classroom or at the school where they teach with an emphasis on perfecting or improving

learning processes and practices.(Arikunto, 2008)

Design begins with planning, action, observation and reflection. The initial step in cycle I was to take preliminary action in the form of problem identification.

This research uses observational data collection techniques. Data analysis techniques using the process of grouping and stabilizing data in presentation to answer the problem formulation posed in the research(Sugiyono, 2017)

It is said to be successful if the child has reached a score of 70 with classical completion of 80% of his cognitive abilities.

1. Planning
 - a. Prepare RKM, RKH, RPP
 - b. Supporting teaching media or APE (flannel board)
 - c. Establish a research schedule
 - d. Observation sheet and list of observation results

2. Implementation of Actions

In this stage, the researcher carried out the learning process by applying play methods and giving assignments using flannel board APE, as action intervention material and was assisted by colleagues in carrying out observations or research on children's cognitive abilities using flannel board media for children aged 5-6 years in kindergarten. Islam Baiturrahman Tanjung

3. Observation

In this stage the researcher presents the results of observations made on children after participating in the lesson. Data collection results can be obtained from teacher observation sheets and observation sheets on the ability to recognize the concept of numbers 1-5.

4. Reflection

The data analysis technique used is descriptive analysis, namely analyzing data by describing or describing the data that has been collected as it is. Next, the data will then be analyzed.

Analysis of data obtained during the research was analyzed using percentage techniques that is, comparing what appears and the total number of children whose results are

multiplied by 100%. To see data trends, the data is displayed in table form and processed descriptively. The data obtained during learning is processed using the percentage technique formulated by(Hariyadi, 2009). The results assessed for each meeting are based on the percentage of children involved in learning activities using the formula:

$$P = \frac{F}{N \times 100\%}$$

Information:

P = percentage number

F = frequency of activities carried out by children

N = number of children in one class

RESULTS AND DISCUSSION

From the results of the research carried out starting from pre-action, the implementation of research in cycle I to the implementation of research in cycle III, it can be seen that children's cognitive abilities, especially in matching numbers with their symbols, as well as concepts of shape, color, size and pattern experienced a very rapid increase. Data obtained through observation and documents are then rewritten and presented. After going through the analysis process in the data framework, it is then concluded. From the results of the analysis, the results of the cycle findings presented by the researcher can be seen as follows:

Table 1 Recapitulation of the Use of Flannel Board Educational Game Tools (APE) to Improve the Cognitive Abilities of Children Aged 5-6 Years at Baiturrahman Tanjung Islamic Kindergarten from Pre-Cycle to Cycle III

NAME	KI Pre Cycle	KI Cycle I	KI Cycle II	KI Cycle III
Irfan	30	50	75	85
Oca	25	45	70	80
Mud	55	70	80	85
Anggi	20	40	65	80
Haidar	50	70	75	80
Kinan	35	50	65	65
Galih	60	75	85	90
Queen	70	80	85	90
Abizar	55	75	80	85

Daughter	80	85	85	95
Dimas	30	45	55	60
Eza	50	65	70	85
Complete Amount	2	6	8	10
Classical Completeness (KK)	16%	50%	66%	83.3%

In this study, initial assessment activities were carried out using observation sheet instruments to measure children's cognitive abilities related to the concept of numbers and their symbols, as well as the concept of shape, color, size and pattern in early childhood.

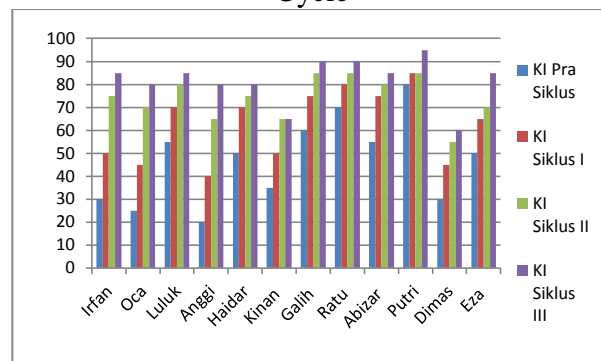
From the results of research conducted on group B children, specifically children in the 5-6 year age group in the pre-cycle, it was seen that only 2 children were able to fulfill individual completeness so that classical completeness only reached 16% of the expected classical completeness, namely 80%. Next, in the first cycle stage, the researcher collaborated with the teacher to design the use of flannel board media for children by introducing numbers and number symbols to children, introducing the concepts of shape, size, pattern and color because most children were not yet able to understand these concepts. So in cycle I, there was a significant increase, some children had improved but still had not met the expected individual completeness score of 70. There were 6 children who had exceeded the individual completeness target so that classical completeness in cycle I was 50%.

In cycle II, after reflecting several times with collaborating teachers, the researcher finally made a larger flannel board so that it was easier for children to play, but our initial concept still used the same shape, size, pattern and color, only different sizes to make it easier for children. Understanding the concept first, this makes the child's enthusiasm appear to increase and in cycle II the child's classical completeness increases to 66%, which means that the increase from cycle I to cycle II has a quite significant difference, namely 16% even though this has not exceeded the desired target. In the sense that the classical completeness obtained in cycle II did not meet the

performance indicators of success set by the researchers and teachers, so the researchers continued their research into cycle III.

In cycle III, the same media was still used, but this time the researchers used more diverse images and used images of children's favorite foods and drinks so that children were more interested in playing with the media. Apart from that, the researchers focused more on each child so that it appeared that the children had a better understanding of the concept of numbers with their symbols, as well as concepts of shape, color, size and pattern and are able to distinguish one group of objects from another group of objects. In cycle III, the researcher obtained classical completeness data of 83.3%, which means that the target set by the researcher had been met.

Graph 1. Recapitulation of the use of Flannel Board Educational Game Tools (APE) to Improve the Cognitive Abilities of Children Aged 5-6 Years at Baiturrahman Tanjung Islamic Kindergarten from Pre-Cycle to Third Cycle



Based on the results of this research, the researcher concluded that using flannel board as a learning medium in improving the cognitive abilities of young children is the right choice, this is because flannel board games require tools or in the form of pictures, number symbols, various shapes adapted to themes and colors to stimulate children to understand the concept of numbers so as to help children in the process of remembering the things they have done, through picture media stimuli, word or visual verbal stimuli can produce better ability to remember, recognize, connect facts and concepts.

Meanwhile, according to (Mulyati et al., 2019) Flannel board is a two-dimensional learning media made from flannel cloth attached to plywood, duplex or board. According to

(Puspitorini, 2018) Flannel board media was chosen because the items used have attractive colors, can be seen, touched, moved, and are easy to attach and remove. Modified flannel board media can improve children's understanding of the concept of numbers and number symbols, the concept of color, shape, size and pattern. So it can be concluded that flannel board is a two-dimensional learning medium which is designed to develop or improve cognitive abilities in early childhood, more precisely in this study, namely children aged 5-6 years.

Board games or flannel boards can also increase children's numerical knowledge and can be used in the classroom as a medium for a fun learning process. Flannel boards can be used in small classes. Flannel board media when played in a team can improve reciprocal relationships between participants and make lessons more enjoyable (Chou, 2017). Apart from that, flannel board games can improve reasoning, negotiation and collaboration skills in a team. Board games in the world of early childhood education are integrated into the learning process because of the child-centered learning concept. When playing a flannel board game, you must have rules of the game so that the goal of the game is achieved optimally. Players must understand the rules of the game even though the rules of the game are not standard, then the rules of the game can be adjusted to the conditions and needs of those who will play the board game. (Evans, 2013)

CONCLUSION

From the results of research conducted at the Baiturrahman Tanjung Islamic Kindergarten, North Lombok district, researchers concluded that:

The use of appropriate media in improving cognitive abilities in early childhood has a big influence on the child's cognitive development. This is proven by data on the results of children's cognitive abilities which increased after research was carried out using educational game tools in the form of flannel boards.

From the research results, it can be seen that the use of flannel board educational games can significantly improve the cognitive abilities

of young children. This can be seen from the fact that at the pre-cycle the classical mastery only reached 16% and increased in the first cycle to 50% after the use of the games educational flannel board. However, this achievement did not meet the performance indicator standards set so it continued with cycle II. Where in cycle II classical completion reached 66% and in cycle III reached 83.3%. This shows an increase in each cycle, which shows that the use of flannel board educational games really improves the cognitive abilities of young children.

So from this research the researchers' hopes are: Learning in early childhood who are still in the preoperational phase must pay attention to the child's needs and comfort level. For optimal learning, appropriate use of APE is needed so that the child's development can be optimized.

SUGGESTION

The use of APE that is interesting and appropriate for children is very important for their development both in terms of ability and intelligence. The use of APE is always ignored by teachers and sometimes it is rarely used, making students reluctant to study in class. We hope that this scientific work will motivate us again to carry out experiments or scientific studies that can help students in their learning.

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