

# Efforts to Improve the Ability of Mastering the Concept of Number Using Number Bag Media in Children Aged 4–5 Years in PAUD Kita Jaya Beach District is a Mirror for 2021/2022 Academic Year

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**abstract .** The main problem in this study is how to increase the ability to master the concept of numbers by using Number Pocket Media in our PAUD Jaya Pantai Cermin. This study aims to improve the ability to master the concept of numbers by using Number Pocket Media in our PAUD Jaya Pantai Cermin. This type of research is class action research (Classroom Action Research) which consists of two cycles in each cycle there are three meetings. Research procedures include planning, implementation, observation, and reflection. The subjects in this study were students aged 4-5 years at Kita Jaya Pantai Cermin PAUD, totaling 13 children. The results of this study can be concluded that the increase is seen in the first cycle of meetings I to III students are at the MB development level (Starting to Develop) with an average value of 46%. Then the second cycle of meetings I to III was carried out so that there was an increase to 94%, which means that the average child is already at the level of development of BSH (Developing According to Expectations). at Kita Jaya Pantai Cermin Beach.

**Keywords:** Number Concept, Number Bag Media, AUD

## I. INTRODUCTION

Early childhood education (PAUD) is a level prior to basic education which is a coaching effort aimed at children from birth to the age of 6 years. In Law Number 20 of 2003 article 28 paragraph 1 concerning the National Education System stipulates that early childhood education is held before the basic education level, through formal, non-formal and/or informal education. Early childhood is a golden period or golden age, at the age of four years the intelligence level of children has reached 50%, at the age of eight years it is 80%, and the remaining 20% is obtained after the age of eight. According to Biechler and Snowman (Yulianti, 2010:9)

Early age is an effective age to develop various potentials that children have. This development effort can be carried out in a variety of ways, including through games and media to recognize numbers, where games to recognize numbers in kindergarten are not only related to cognitive abilities, but also the mental, social and emotional readiness of students, therefore in its implementation it must be done in an interesting, varied and fun (Ministry of National Education, 2007).

According to the Regulation of the Minister of National Education No. 58 of 2009 that the level of achievement of child development includes aspects of cognitive development. Where children aged 5-6 years, the level of achievement of cognitive development consists of an introduction to the concept of numbers, including mentioning the number symbols 1-10. Furthermore, according to the Ministry of National Education in 2010, it was translated into several indicators including counting/calling the sequence of numbers 1-20, counting (getting to know the concept of numbers with objects) to 20, sorting number symbols with objects 1-20 and connecting/pairing number symbols with objects up to 20 (child does not write).

One of the right and interesting media to make it easier for children to recognize number symbols is number bag media. Number pocket media is media that contains images of a number, text or symbols arranged randomly made using paper of different sizes, so that it makes it easier to convey messages, stimulates the mind and as a support in the process of learning number recognition for early childhood . (Destiani, 2018: 28; Munawaroh, 2015: 6).

The problems experienced by children at Paud Kita Jaya Pantai Cermin show that the ability to understand the concept of symbol numbers is still low. Factors that cause a lack of children's ability to recognize number concepts are because teachers still have difficulty developing interesting learning media to increase children's interest and minimize children's saturation in understanding number symbols in the learning process, so as to make it easier to convey the introduction of number concepts to children. Subjects in this study were children aged 4-5 years at Paud Kita Jaya, Kec. Pantai Cermin, the entire subject of this study was 13 children, consisting of 8 girls and 5 boys.

To overcome the above problems, researchers feel the need to develop interesting learning media. the use of interesting media is also very supportive of children's learning. Children who still think concretely will learn more easily when using learning media. Learning media makes it easier for children to understand something abstract in nature, such as recognizing number symbols. Learning media used to introduce number symbols can be in the form of imitation objects or images of the

material to be conveyed to children. Number bag media is one of the interesting media that is made by using paper which forms a bag with different sizes and shapes with striking colors and there are pictures that match the learning theme using the help of ice cream sticks. Learning to use number bag media will be more fun and make it easier for children to immediately know and see the material to be learned.

Based on the results of research on the ability to master the concept of numbers using number bags in children aged 4-5 years which has been carried out by researchers at Kita Jaya Early Childhood Education, Pantai Cermin District, Academic Year 2021/2022. Shows that most children develop very well. It can be seen that 3 children are developing as expected and 10 children are developing very well in counting many objects 1-10, 6 children are developing as expected and 7 children are developing very well in making sequences of number symbols 1-10. 5 children developed as expected and 8 children developed very well in gradually imitating the number symbols 1-10. Based on the description above, in this study the author took the title of the study, Efforts to Improve the Ability to Master the Concept of Numbers Using Number Pockets in Children Aged 4-5 Years at Paud Kita Jaya, Pantai Cermin District, Academic Year 2021/2022. Based on the background and discussion of the problem, the formulation of the problem in this study is whether the Use of Number Pocket Media Can Increase the Ability to Recognize the Concept of Numbers at the Age of 4-5 Years in Dipaud Kita Jaya Kec. Mirror Beach

This study aims to look at Efforts to Improve the Mastery of Number Concepts Using Number Pocket Media in Children Aged 4-5 Years at Paud Kita Jaya Kec. Pantai Cermin Academic Year 2021/2022.

## II. METHODS

In this study the authors used a research model that refers to the process of conducting research put forward by Kurt Lewin. In practice, this classroom action research uses the Kurt Lewin model which states that in one cycle consists of four main steps, namely: (1) planning (planning), (2) action or action (acting), (3) observation (observing), and (4) reflection (reflecting). From the flow above, that the implementation of Classroom Action Research (CAR) starts from the planning or planning stages, actions or activities, observation and reflection.

Overall, the four stages in the CAR form a CAR cycle which is depicted in a spiral form.

1. Research time

This research activity was carried out in June, Even Semester for the 2021/2022 Academic Year

2. Research Place

This research was conducted on children aged 4-5 years at Paud Kita Jaya Kec. Mirror Beach.

1. Research subject

The subjects in this study were children aged 4-5 years at Paud Kita Jaya district. Mirror Beach for the 2021/2022 school year which consists of 13 children, namely 7 girls and 5 boys.

2. Object of research

The object of this research is an effort to improve the ability to master the concept of numbers by using the number bag media for children aged 4-5 years at Paud Kita Jaya sub-district, Pantai Cermin .

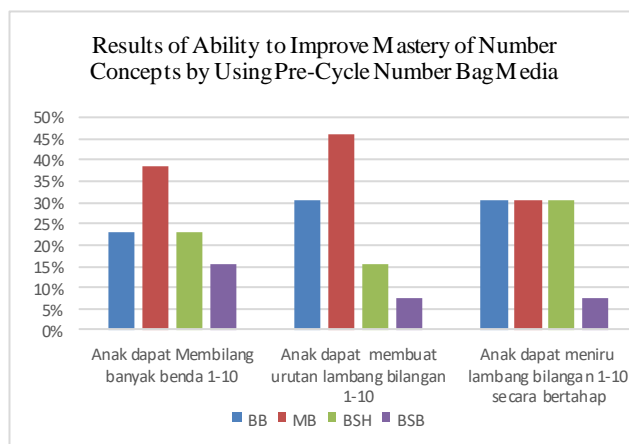
Observation is a way of gathering information which is carried out by conducting direct observation and systematic recording of the phenomena that are used as objects of observation. Observations in this study determine whether the efforts made by educators using media tools affect the ability to recognize the concept of numbers in children. To find out the child's developmental achievements in each indicator in the learning process, the writer needs to know the level of achievement of the child in seeing the implementation of activities to get to know the concept of numbers with the media of number pockets carried out in each cycle.

## III. RESULTS AND DISCUSSION

This research was conducted at Paud Kita Jaya in semester II of the 2021/2022 Academic Year. This study aims to improve numeracy skills through the media of number pockets. This research is a classroom action research. However, before the number bag media game is implemented, the researcher first makes observations which aim to find out the initial conditions of the child's ability to recognize the concept of numbers before implementing learning to recognize the number concept with number bag media. The results obtained on the initial ability before the action is carried out will eventually be compared with the results after the action through learning to recognize the concept of numbers with the media of number bags. The comparison aims to show an increase before and after the action is taken.

1. Children can make a sequence of number symbols 1-10, namely not yet developing (BB) as many as 4 children with a percentage (30.7%), starting to develop (MB) as many as 6 children with a percentage (46.1%), developing according to expectations (BSH) as many as 2 children with a percentage (15.3%) and very well developed (BSB) as many as 1 child with a percentage (7.6%).
2. Children can imitate the number symbols 1-10 gradually, namely not yet developing (BB) as many as 4 children with a percentage (30.7%), starting to develop (MB) as many as 4 children with a percentage (30.7%), developing as expected (BSH) as many as 4 children with a percentage (30.7%) and developing very well (BSB) as many as 1 child with a percentage (7.6%).

From the results of observing the ability to increase mastery of the pre-cycle number concept above, a graph can be made as follows:



**Figure 1 Graph of ability to master the concept of pre-cycle numbers**

From the graph above, the achievements that are expected to develop according to expectations (BSH) and develop very well (BSB) can be seen in the following table:

**Table 2**  
**The level of achievement of children Developing According to Expectations (BSH) and Developing Very Good (BSB) Pre Cycle**

No	Indicator	BSH	BSB	Percentage
1.	Children can count many objects 1-10	3	2	5
		23 %	15.3 %	38.3 %
2.	Children can make a sequence of symbol numbers 1-10	2	1	3
		15.3 %	7.6 %	22.9 %
3.	Children can imitate the symbols of numbers 1-10 gradually	4	1	5
		30.7 %	7.6 %	38.3 %
Average				33 %

The table above shows that the initial conditions before the action were very low. Observation results before taking action with indicators:

1. Children can count many objects 1-10 , namely developing according to expectations (BSH) of 3 children (23%) and very well developed (BSB) of 2 children (15.3%).
2. Child indicators can make a sequence of number symbols 1-10 , namely developing according to expectations (BSH) of 2 children (15.3%) and very well developed (BSB) of 1 child (7.6%)
3. Child indicators can gradually imitate the number symbols 1-10, namely developing according to expectations (BSH) of 4 children (30.7%) and developing very well (BSB) of 1 child (7.6%)

The average results improve the ability to master the concept of numbers by using number bags as media on precycle is 33%. From all of the above, the researcher feels the need to improve the ability to master the concept of numbers by using number bags as media. This is done in learning to improve children's numeracy skills. The results of the research are presented starting from cycle I then continued with the research cycle II.

**Observation Cycle I**

The observation stage is carried out using observation sheets that have been provided and carried out every time learning takes place with the aim of obtaining information about the implementation of the learning process which is carried out from the beginning to the end of learning. The results of observations in cycle I showed that the ability to increase mastery of number concepts using number bag media increased gradually. numbers can be summed up in the table below:

**Table 2**  
**Observation Results Improve the Ability to Master the Concept of Numbers With Using Cycle I Number Bag Media**

No	Indicator	BB	MB	BSH	BSB	Percentage
1	Children can count many objects 1-10	0	3	7	3	13
		0 %	23 %	53.8 %	23 %	100%
2	Children can make a sequence of symbol numbers 1-10	1	4	6	2	13
		7.6 %	30.7 %	46 %	15.3 %	100%
3	Children can imitate the symbols of numbers 1-10 gradually	0	4	5	4	13
		0 %	30.7 %	38.4 %	30.7 %	100%

**Information:**

- BB : Not Developed
- MB : Still Developing
- BSH : Growing as Expected
- BSB : Very Well Developed

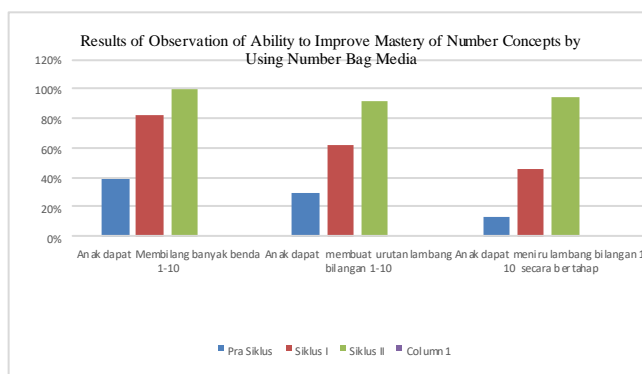
In the table above, after the Cycle I action was carried out it was found that:

- a. Children can count many objects 1-10 , namely not yet developing (BB) as many as 0 children with a percentage (0%), starting to develop (MB) as many as 3 children with a percentage (23%), developing as expected (BSH) as many as 7 children with percentage (53.8%) and very well developed (BSB) as many as 3 children with a percentage (23%)
- b. Children can make a sequence of number symbols 1-10, namely 1 child has not yet developed (BB) with a percentage (7.6%), started to develop (MB) as many as 4 children with a percentage (30.7%), developed according to expectations (BSH ) as many as 6 children with a percentage (46%) and very well developed (BSB) as many as 2 children with a percentage (15.3%).
- c. Children can imitate the number symbols 1-10 gradually, namely not yet developing (BB) as many as 0 children with a percentage (0%), starting to develop (MB) as many as 4 children with a percentage (30.7%), developing as expected (BSH) as many as 5 children with a percentage (38.4%) and very well developed (BSB) as many as 4 children with a percentage (30.7%).

From the results of observing the ability to increase mastery of the concept of numbers in cycle I above, a graph can be made as follows:

Based on the table data above, it can be seen that there has been an increase in the ability to master the concept of numbers by using number bag media in the Pre-cycle, Cycle I, Cycle II. In the pre-cycle it was known that the average ability to master the number concept was 12.8%, in the first cycle it was known that the average ability to master the number concept was 46%, and in Cycle II the average ability to master the number concept was 94%.

Data resulting from improving the ability to master the concept of numbers can be presented in the following figure:



**Figure 2 Graph of Ability to Master the Concept of Numbers, Pre-Cycle, Cycle I, Cycle II**

It can be seen that the ability to master the concept of numbers has increased from the pre-cycle stage, cycle I to cycle II based on the analysis carried out by the researcher. Because by using number bag media it makes children feel happy and innovates playing while learning directly children are also taught to solve simple and creative problems so that children's ability to master the concept of numbers can develop.

Apart from that, from the results of the research, the researcher observed several discussions that arose during the observation, including helping children to develop their ability to master the concept of numbers optimally.

This study aims to improve the ability to master the concept of numbers using number bags in children aged 4-5 years at Paud Kita Jaya. The implementation of learning through number bag media is an activity that aims to develop aspects of child development.

Through the number bag media learning method, children can improve their cognition, solve problems, express their abstract imagination into something concrete and get concepts in solving problems and creating new things according to creative ideas.

ability to master the number concept above can be concluded that the ability to master the number concept by using the number bag media at the age of 4-5 years at Paud Kita Jaya has fulfilled the indicator of success, namely that many  $\leq 80\%$  average percentage. The child's number concept mastery ability increases every cycle.

The average ability to master the concept of children's numbers in the pre-cycle, amounted to 12.8%, increased in cycle I by 46%, and in cycle II increased again to 94%. Thus it can be concluded that the ability to master the concept of numbers by using number bag media at the age of 4-5 years of our early childhood can be accepted as true.

#### IV. CONCLUSIONS

The research and discussion that has been described in the previous chapter, this research concludes that the technique of introducing the concept of numbers by using number bags can improve the mastery of number concepts in children aged 4-5 years. from pre-skill to cycle II. In the pre-cycle, the child's ability to master the concept of numbers is still low, this can be obtained by the child which is equal to 12.8%. Furthermore, in cycle I, the ability to master the concept of children's numbers experienced an increase compared to pre-cycle I, which was 46%, then in cycle II, the ability to master the concept of children's numbers experienced a significant increase compared to cycle I, which was 94%, this was because the children were getting used to it. do learning with number bag media.

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