EFFORTS TO IMPROVE THE NUMERACY SKILLS OF EARLY CHILDHOOD AGED 5-6 YEARS OLD USING NATURAL MATERIALS AT PAUD WAE WELAK ON ACADEMIC YEAR OF 2018/2019

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ABSTRACT

This research is motivated by the problem of children who have difficulty in cognitive development, especially in the ability to count. Children find it difficult to do simple counting activities, i.e. counting numbers 1 to 10. Another thing that can be seen is teaching-learning which is dominated by the teacher using the lecture method. It is thought to be the cause of the low early numeracy skills in early childhood at PAUD Wae Welak. The purpose of this study was to describe the use of natural material in improving the numeracy skills of children aged 5-6 years at PAUD Wae Welak. The type of research used is classroom action research (CAR) developed by Kemmis and McTaggart which is the development of the basic concept introduced by Kurt Lewin. This research was conducted on 17 students of Class B in PAUD Wae Welak, West Reok District.

Based on the results of data collection, data processing and evaluation, there has been an increase in numeracy skills by utilizing natural materials for Class B children at PAUD Wae Welak. Moreover, it can be concluded that natural materials around children can be used as learning media for early childhood, especially in improving their numeracy skills which is carried out in cycle I and cycle II.

Key Words: *Numeracy; Natural Ingredients; Children Aged 5-6 Years*

PRELIMINARY

Early Childhood Education (PAUD) is one of the most important things for human survival. Early age is the most effective stage for developing all aspects of child development and important in determining children's character and personality. Referring to the definition of Early Childhood Education as stated in Article 1, Paragraph 14 of the National Education System, Law No. 20/2003, Early Childhood Education is a schooling effort aimed at children from 0 to the age of six which is carried out through the provision of educational stimuli, to help children's physical and spiritual growth and development so they are prepared to begin further education held on formal ways, non-formal and informal (Mulyasa, 2012: 60).

The goal of Early Childhood Education is to optimize the development of children from an early age in a holistic manner covering the

six aspects of child development. One of the developmental aspects possessed by the children is cognitive development. Cognitive is a thought process, namely the individual's ability to relate values and consider an event or events.

Based on Permendikbud, Number 137/2014, the scope of early childhood cognitive development includes learning and problem-solving abilities, logical thinking and symbolic thinking. One example of the level of children achievement development based on Permendikbud Number 137/2014 is: applying knowledge or experience in a new context, sorting objects based on size from smallest to largest or vice versa and mentioning symbols such as numbers 1-10.

One of the logical thinking skills that need to be developed from an early age is the ability to count. It is needed to develop logical skills which are very important in everyday life, especially the concept of numbers. It is also the basis for developing mathematical abilities and readiness for further education. Therefore, the ability to count must be optimized from an early age through the provision of meaningful stimulation so that children have readiness in developing mathematical logic intelligence.

Stimulation of children's cognitive development from an early age requires active involvement from various parties, such as teachers, parents, and adults. The importance of stimulating cognitive aspects from an early age is that children are able to develop perceptual capacity based on what they see, hear and feel. The development of perceptual capacity can benefit the children to have a complete and comprehensive understanding of the object being studied or encountered. In addition, children are able to train their memory of all events experienced by children, so that children can understand various symbols that are scattered in the world around them.

Optimizing cognitive development can be done by providing various educational game tools (APE) that support children's cognitive development. The APE used can be in the form of modern or traditional APE by utilizing natural materials around the children. Natural materials have many advantages: more efficient, practical, easy to reach and safe for the children because it doesn't contain chemical elements that harm children's health.

Based on pre-research data obtained through observations at PAUD Wae Welak in December 2018, data talk about children who have difficulties in cognitive development, especially in numeracy skills. Children find it difficult to do simple counting activities, for example to count from 1-10. Another thing is learning was dominated by the teacher's method. This is presumed to be the cause of the low early numeracy skills in early childhood. In addition, the researchers tried to dig

further through interviews to find preliminary data regarding the reasons why teachers tend to use the lecture method without using media in introducing the concept of counting to children. Based on an interview with one of the teachers, information was obtained that teachers tend to use the lecture method only because the learning media is very limited. This is the basic reason for teachers to prefer the lecture method over fun playing method for children. From the interviews, researchers also obtained data on the percentage of children's achievement related to numeracy skills. Of the 17 children in group B, 5 children who were in the undeveloped (BB) category, 6 people in started to developed (MB), 4 children developed as expected (BSH) and very well developed (BSB) only 2 children. This data shows the low numeracy skills of children aged 5-6 years in PAUD Wae Welak.

Yumirawati (2011: 11) states that numeracy is a person's ability to perform arithmetic operations, namely the ability to solve simple problems such as addition, subtraction, multiplication and division or algebraic manipulation.

Hurlock (2010: 51) revealed that counting in PAUD is an introduction to the meaning and concept of numbers in adjustment to the child's age and education. Jamaris (2009: 247) states that children's basic numeracy skills can be seen from the child's ability to conceptualize numbers, count to a certain extent and some have even been able to perform simple arithmetic operations.

Susanto (2011: 98) states that children's numeracy skills are the abilities possessed by every child to develop their potentiality, the characteristics of development starting from the environment closest to themselves, in line with the children development abilities can increase to the stage of understanding the number, which is related to the number and reduction. Referring to STPPA of Permendikbud 137, ideally children aged 5-6 years should already have the ability to count from 1-10 and be able to use symbols in counting. In improving children's numeracy skills, teachers can use various methods. An easy way that can help children is to use natural materials as the most practical media for children. The use of natural materials is very helpful for teachers because they are easily obtained from the surrounding environment, such as stones, twigs, leaves or seeds. Children will easily understand how to count well by using the stones they often encounter every day.

Musbikin (2010: 123) states that nature and the surrounding environment were created for humans, one of its benefits is as an excellent medium to teach many things to humans, especially for early childhood who are still experiencing development from all aspects. Hardjono (2006: 7) also states that efforts to use the natural

surroundings in the context of education include knowledge about how it works, conditions, impacts and the use of natural materials that are around as good learning materials and resources for children.

Montolalu (2009: 8) reveals that the environment is very effective as a source and media in early childhood learning. Nugraha (2008: 240) provides a definition of natural materials, as all aspects around humans that affect life, including biotic resources and abiotic resources. Biotic resources include; green plants and animals while abiotic are inanimate objects which include: soil, water, air and minerals in the surrounding environment.

RESEARCH METHODS

Research Types and Design

The type of research used is Classroom Action Research (CAR). According to Kusumah and Dwitagama (2010: 8) classroom action research (CAR) is research conducted by the teachers in their own classrooms by planning, implementing, reflecting on collaborative and participatory actions with the aim of improving teacher performance so that student learning outcomes increase.

The design used in this research is Kemmis and McTaggart's classroom action research (CAR) which is the development of the basic concept introduced by Kurt Lewin.

Research procedure

Research procedures are steps or guidelines that contain all processes related to the research. Kemmis and Mc Taggart's model can be described as follows (Arikunto, 2010: 11).

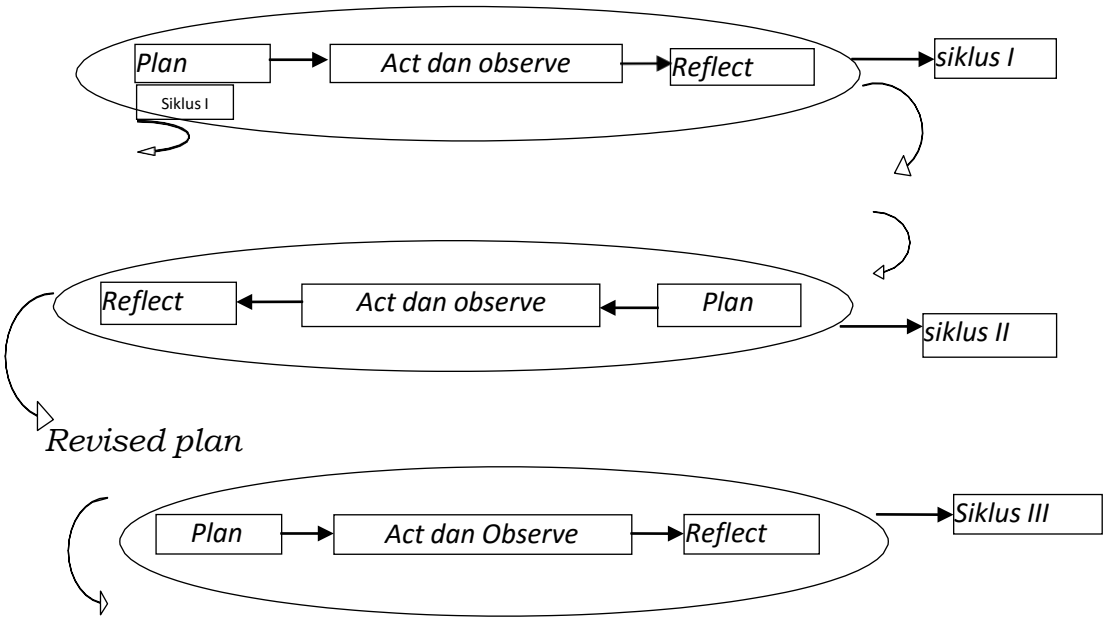

Image: Kemmis and Mc Taggart model

Place and time of research

This research was conducted at PAUD Wae Welak, West Reok District during the 2018/2019 Academic Year. The researchers chose PAUD Wae Welak as a site of research because researchers found problems related to children's numeracy skills using natural materials. This research was conducted in May 2019.

Research Subjects and Objects

The subjects in the study were early childhood children aged 5-6 years, totaling 17 children in PAUD Wae Welak, West Reok District. Meanwhile, the object is the child's ability to count.

Data Collection Technique and Instruments

The data collection technique used in this research is observation. Based on the data collection techniques used, the research instrument used in this study was an observation sheet. To determine the child's developmental status at the end of the assessment period there are four scales, namely:

BB means not yet developed: if the child does it, it must be guided or exemplified by the teacher.

MB means starting to develop: if the child does it still has to be reminded or assisted by the teacher.

BSH means developing according to expectations: when the child is able to do it independently and consistently without having to be reminded or exemplified by the teacher.

BSB means developing very well: when the child is able to do it independently and is able to help his friend who has not achieved the ability according to the expected indicators.

Data Analysis Technique

Based on this research, the data analysis used in this research is descriptive qualitative analysis. Descriptive qualitative data were obtained from observation sheets of children's activities during the learning process. The analysis of the data obtained in this classroom action research are as follows:

$$KBK = \frac{the\ number\ of\ students\ who\ developed\ very\ well}{the\ total\ number\ of\ students\ in\ the\ class} x100\%$$

The criteria for success in this study include indicators of children being able to count, being able to recognize numbers and being able to show numeracy skills. This research can be said to be successful if the percentage of children's developmental achievements in classical arithmetic reaches 80% with the category of Developing According to Expectations (BSH).

RESULTS AND DISCUSSION

Research result

A. Pre-action Data

The pre-action activity was carried out to determine the early numeracy skills of children aged 5-6 years at PAUD Wae Welak through a review of the teacher's assessment documents. Data talked about children who experience difficulties in cognitive development, especially in the ability to count from 1-10. The results of observations and pre-action data collection carried out on group B children, totaling 17 children, can be seen in table 3.1:

No	Child Name	Child Development Achievements
1	AL	BSH
2	ROI	BB
3	RB	MB
4	REI	BB
5	JL	BB
6	NR	BSB
7	VR	MB
8	AS	BSH
9	AF	BSB
10	EJ	BB
11	AV	MB
12	ET	BB
13	VT	BSH
14	SD	BSH
15	VH	MB
16	PT	MB
17	KV	MB

The data shows that children's numeracy skills are very low, particularly the number of children who are in the developmental achievement with the category of Undeveloped (BB) as much as 29%, Starting to Develop (MB) as much as 35%, Developing Very well (BSB) as much as 12% and Developing as Expected (BSH) as much as 24%.

1. Description of Research Data

1. Cycle 1

Cycle 1 was held in two meetings, the first meeting on May 20, 2019 and the second meeting on May 21, 2019. All children participated in the learning activities. Each cycle consists of three components of action, namely Planning,

Implementation of Action and Observation & Reflection.

2. Planning

From the observations and pre-research interviews results, the researchers developed a plan to carry out action research using natural materials. Preparation of a numeracy lesson plan by utilizing natural materials such as: preparing a Daily Learning Implementation Plan (RPPH) related to the theme used, preparing learning media in the form of natural materials, such as seeds (green beans, rice and soybeans) used for the first meeting, pieces of wood for the second meeting and for the third meeting the media prepared by the puzzle media. In addition to RPPH and media or research instruments in the form of checklist sheets and children's work.

3. Implementation of Actions and Observations

a. The 1st Meeting

This research was conducted on Monday, May 20, 2019 for 90 minutes with the theme “My Country”, the sub-theme of the state symbol. Researchers carry out activities based on what has been planned. The first thing the researcher does before carrying out the action is to explain the theme of learning and the activities to be carried out. This activity is carried out according to the plan as made in the daily learning implementation plan (RPPH). The learning steps are as follows.

1) Initial Activities

The initial activity carried out today was by reading a prayer before carrying out the activity led by Alta, then the children greeted the teacher and friends and continued with attendance by the teacher. After that, the researcher asked the children to talk about the theme of my country. The researcher asked the children "what color is the Indonesian flag"? while showing the flag that is attached to the classroom wall. The child answered "red and white ". Next, the researcher asked the children's feelings. The researcher asked the children "Are you happy today"? the children answered in unison "we are happy ". After that, the researcher asked the children to sing, Garuda Pancasila song, led by Kaliva. Researchers arrange children's seats followed by core activities.

2) Core Activities

Before doing the main activity, the researcher invites the children to pay attention to the tools and materials that will be used in the activity of making a collage of Garuda Pancasila and the Red-White Flag. The researcher explained, "Today, we will be doing an

activity in counting the number of seeds used to make a collage of images of the Garuda and red and white flag according to shape, size and color.

The tools and materials are grains such as rice, green beans, soybeans, glue, an image of an eagle and an image of the red and white flag. Next, the teacher explained, "Today, we are making a collage of an eagle and a red and white flag from materials that have been prepared". In the process of making a collage of Garuda and red and white flags, there were 6 children (A, R, V, L, J and RI) who were very active in counting the number of seeds used according to shape, size and color. Four children (NR, RY, K da, V) who can distinguish types of grains based on shape, size and color by counting the number of grains, 3 children (H, K, and A) who can count and mention the number of grains taken and 4 children (E, S, A and P) who only watch the activities carried out by their friends. After completing the activity of making a collage of Garuda and red and white flags, the researchers asked questions about the activities carried out by the children. The researcher asked "how many seeds did you paste earlier? Some children (A, R, K) varied answering "10, 12, and 14 ". There are also children (V, P, J) who answered 6, 9, and 11".

3). Closing Activities

The teacher and children do a recall about the activities of making a collage of Garuda and red and white flags that the children have done in the core activity. The teacher divides the children's work one by one and continues with a closing prayer.

4). Observations of the 1st Meeting

Table 3.2 Observation Results of the 1st Meeting

No	Child Name	Rated Indicators			
		1	2	3	4
1	AL	BSB	BSB	BSB	BSB
2	ROI	BSB	BSH	BSH	BSH
3	RB	BSH	BSH	BSH	BSH
4	REI	MB	MB	MB	BB
5	JL	BSH	BSH	BSH	BSH
6	NR	BSH	BSH	BSH	BSH
7	VR	BSH	BSB	BSH	BSB
8	AS	B	BB	BB	BB
9	AF	MB	MB	MB	MB

10	EJ	BSH	BSH	BSH	BSH
11	AV	BB	MB	MB	MB
12	ET	BB	MB	BB	MB
13	VT	MB	BS	MB	BS
14	SD	BSH	H	BS	H
15	VH	MB	BS	H	BS
16	PT	BB	H	BS	H
17	KV	BSB	BB	H	MB
			BB	BB	BB
			BSH	BSB	BSB
VALUE SCALE					
1 (BB)		23%	18%	18%	18%
2(MB)		23%	23%	23%	23%
3(BSH)		36%	47%	47%	47%
4(BSB)		18%	12%	12%	12%

Based on the table 3.2, the results of observing children's numeracy skills using natural materials are the results of 4 indicators assessed, namely the *first indicator*, category BB is 4 children with a presentation of 23% assessment, namely AS, AV, ET and PT. Category MB is 4 children with a presentation of 23% assessment, namely R, AF, VT and VH. Category BSH is 6 children with a presentation of 36% assessment, namely RB, JL, NR, VR, EJ and SD. Category BSB is 3 children with a presentation of 18%, namely AL, R and KV. The *second indicator*, category (BB) is 3 children with an assessment presentation of 18%, namely AS, VH and PT. Category MB is 4 children with a presentation of 23% assessment, namely R, AF, AV and ET, Category BSH is 8 children with a presentation of 47% assessment, namely R, RB, JL, NR, EJ, VT, SD and K, Category BSB is 2 children with a presentation of 12%, namely AL and VR. The *third indicator*, category BB consisted of 3 children with an assessment presentation of 18%, Category MB is 4 children with a presentation of assessment of 23%, Category BSH is 8 children with a presentation of assessment of 47%, Category BSB is 2 children with a presentation of 12%. The *fourth indicator*, category BB is 3 children with an assessment presentation of 18%. Category MB is 4 children with a presentation of assessment of 23%, Category BSH is 8 children with a presentation of assessment of 47%, Category BSB is 2 children with a presentation of 12%. From these data, the level of children's numeracy skills development is very low and has not yet reached the presentation criteria. So it can be said that in pre-action activities, most children still need

guidance in order to achieve children's cooperative abilities.

a. 2nd meeting

The second meeting in cycle 1 was held on Tuesday, May 21, 2019. As in meeting 1, before being given action in the form of learning activities, the researcher first explained to the children about the activities carried out. There are also learning steps as follows:

1) Initial Activities

The initial activity carried out today was by reading a prayer led by Vitran, then the children greeted the teacher and friends and continued with attendance by the teacher. After that, the researcher asked the children to talk about the theme of My Country. The researcher asked the children "what is the capital city of Indonesia"? while showing the letters that are pasted on the classroom wall, the child answered "Jakarta ". Next, the researcher asked the children's feelings. The researcher asked the children "Are you happy today"? The children answered in unison "happy". After that, the researcher asked the children to sing a song entitled Garuda Pancasila led by Robi. The researcher arranged the children's seats followed by the core activities.

2). Core Activities

Before doing the main activity, the researcher invites the children to pay attention to the tools and materials that will be used in the activity of compiling Indonesian and Jakarta letters based on shape, size and color as well as counting the number of Indonesian and Jakarta letters. The researcher explained "Dear children today we will carry out activities to arrange Indonesian and Jakarta letters based on shape, size and color and count the number of Indonesian and Jakarta letters. Then, the teacher explained " we will arrange Indonesian and Jakarta letters based on shape, size and color and count it. In the process of compiling Indonesian and Jakarta letters based on shape, size and color and counting the number of Indonesian and Jakarta letters, there were 10 children (A, R, V, L, J, RI NR, RY, K da, V) who were very active in counting the number of letters: Indonesian and Jakarta letters 3 children (H, K, and A) who can count the number and 4 children (E, S, A and P) who only watch activities done by their friends. After completing the activity of compiling Indonesian and Jakarta letters based on shape, size and color and counting the number of Indonesian and Jakarta letters, the researcher asked questions about the activities carried out by the children. The researcher asked “how many letters did you arrange earlier? Some children (A, R, K) varied answering "10, 12 and

14 ". There are also children (V, P, J) who answered 6, 9, and 11 ".

3) Closing Activities

The teacher and children do a recall on the activity of compiling Indonesian and Jakarta letters based on shape, size and color and count the number of Indonesian and Jakarta letters that the children have done in the core activity. The teacher divides the children's work one by one. Then after that the teacher invited the children to sit on the bench and praying before going home led by Kaliva.

4) Observations of the Second Meeting

Tabel 3.3 2nd Meeting Observation Results

No	Child Name	Rated Indicators			
		1	2	3	4
1	AL	BSB	BSB	BSB	BSB
2	ROI	BSH	BSH	BSH	BSH
3	RB	BSH	BSH	BSH	BSH
4	REI	MB	BB	BB	BB
5	JL	BSH	BSH	BSH	BSH
6	NR	BSH	BSH	BSH	BSH
7	VR	BSB	BSB	BSB	BSB
8	AS	BB	BB	BB	MB
9	AF	MB	MB	MB	MB
10	EJ	BSH	BSH	BSH	BSH
11	AV	BSH	MB	BSH	BSH
12	ET	MB	MB	MB	MB
13	VT	BS	BS	BS	BS
14	SD	H	H	H	H
15	VH	BS	BS	BS	BS
16	PT	H	H	H	H
17	KV	BS	BS	BS	BS
		H	H	H	H
		BB	MB	MB	BB
		BSB	BSB	BSB	BSB
VALUE SCALE					
1 (BB)		12%	12%	12%	12%
2(MB)		18%	23%	18%	18%
3(BSH)		52%	47%	52%	52%
4(BSB)		18%	18%	18%	18%

Based on this table 3.3, the results of observing children's numeracy skills using natural materials are the results of 4 indicators assessed, namely the *first indicator*, category (BB) is 2 children with a presentation of 12% assessment. Category (MB) is 3 children with an assessment presentation of 18%. Category (BSH) is 10 children with a presentation of 36% assessment. Category (BSB) is 3 children with a presentation of 18%, namely AL, R and KV. The *second indicator*, category (BB) is 3 children with an assessment presentation of 18%, namely AS, VH and PT. Category (MB) is 4 children with a presentation of 23% assessment, namely R, AF, AV and ET. Category (BSH) is 8 children with a presentation of 47% assessment, namely R, RB, JL, NR, EJ, VT, SD and KV. Category (BSB) is 2 children with a presentation of 12%, namely AL and VR. The *third indicator*, category (BB) is 2 children with an assessment presentation of 12%. Category (MB) is 3 children with an assessment presentation of 18%. Category (BSH) is 10 children with a presentation of 36% assessment. Category (BSB) is 3 children with a presentation of 18%. *Fourth Indicator*, category (BB) is 2 children with an assessment presentation of 12%. Category (MB) is 3 children with an assessment presentation of 18%. Category (BSH) is 10 children with a presentation of 36% assessment. Category (BSB) is 3 children with a presentation of 18%. From these data, the level of development of children's numeracy skills is very low and has not yet reached the presentation criteria. So it can be said that in pre-action activities, most children still need guidance in order to achieve children's cooperative abilities.

1. Reflection

The teaching learning in cycle 1, went smoothly but there were still some children who were not able to carry out activities in counting the number of seeds used to make Garuda collages and red and white flags. At this stage, the researcher concludes that there are inhibiting factors such as teachers not using natural materials as suitable media for children, teachers are more likely to use the lecture method so that children get bored quickly.

2. Cycle 2

I. Planning

Planning activities were carried out as an effort to improve things that were felt to be lacking in cycle 1. The plan in cycle II was prepared in order to further optimize the ability to count using natural materials including preparing learning programs, allocating time for action activities, discussing the focus of implementation and preparing natural material media used in the process of improving children's numeracy skills.

II. Implementation of Actions and Observations

The implementation stage of the actions and observations in cycle II is an improvement from cycle 1. Based on several evaluations from cycle 1, it is expected that in cycle II it can maximize the numeracy skills of children aged 5-6 years using natural materials at the Wae Welak PAUD institution.

a. The first meeting

This research was conducted on Monday, 27 May 2019 for 90 minutes with the theme My Country, the sub-theme of the state symbol. Researchers carry out activities based on what has been planned. The first time the researcher did before carrying out the action was to explain the theme of learning and the activities to be carried out. This activity is carried out according to the plan as made in the daily learning implementation plan (RPPH). The learning steps are as follows.

1) Initial Activities

The initial activity carried out today was by reading a prayer before carrying out the activity led by Robi, then the children greeted the teacher and friends and continued with attendance by the teacher. After that, the researcher asked the children to talk about the theme of my country. The researcher asked the children "what color is the Indonesian flag"? while showing the flag attached to the classroom wall, the child answered "red and white ". Next, the researcher asked the children's feelings. The researcher asked the children "Are you happy today"? The children answered in unison "happy ". After that, the researcher asked the children to sing, entitled Garuda Pancasila, led by Varhan. Researchers arrange children's seats followed by core activities

2) Core Activities

Before doing the main activity, the researcher invites the children to pay attention to the tools and materials that will be used in the activity of making a collage of Garuda Pancasila and the Red and White Flag. The researcher explained, "Today we will be doing an activity: counting the number of seeds used to make a collage of images of the Garuda and red and white flags according to shape, size and color. The tools and materials are grains such as rice, green beans, soybeans, glue, pictures of Garuda and pictures of red and white flags. The teacher then explained, "Today, we are making a collage of images of an eagle and a red and white flag from materials that have been prepared. In the process of making a collage of Garuda and red and white flags, there were 10 children (A, R, V, L, NR, RY, K, V, J and RI) who were very active in counting the number of grains used to make a picture collage of Garuda and the red and white flag according to size and color, 3 children (H, K, and A) who can distinguish types of grains based on shape, size and color by counting the number of grains, 4

children (E, SA and P) who can calculate and mention the number of seeds taken. After completing the activity of making a collage of Garuda and red and white flags, the researcher asked questions about the activities carried out by the children. The researcher asked “how many seeds did you paste earlier? Some children (A, R, K) varied answering "10, 12, and 14 ". There are also children (V, P, J) who answered 6, 9, and 11".

1) Closing Activities

The teacher and children do a recall about the activities of making a collage of Garuda and red and white flags that the children have done in the core activity. The teacher divided the children's work one by one and then praying to go home led by Nuria.

2) Observations of the First Meeting

Table 3.4 Observation Results of the First Meeting

No	Child Name	Rated Indicators			
		1	2	3	4
1	AL	BSB	BSB	BSB	BSB
2	ROI	BSB	BSH	BSH	BSH
3	RB	BSH	BSH	BSH	BSH
4	REI	BSH	BSH	BSH	BSH
5	JL	BSH	BSH	BSH	BSH
6	NR	BSH	BSH	BSH	BSH
7	VR	BSB	BSB	BSB	BSH
8	AS	MB	MB	MB	MB
9	AF	BSH	BSH	BSH	BSH
10	EJ	BSH	BSH	BSH	BSH
11	AV	BSH	BSH	BSH	BSH
12	ET	BS	BS	BS	BS
13	VT	H	H	H	H
14	SD	BS	BS	BS	BS
15	VH	H	H	H	H
16	PT	BS	BS	BS	BS
17	KV	H	H	H	H
		BS	BS	BS	BS
		H	H	H	H
		MB	MB	MB	MB
		BSB	BSB	BSB	BSB
SCALE MARK					
1 (BB)		0%	0%	0%	0%

2(MB)	12%	12%	12%	12%
3(BSH)	65%	70%	70%	70%
4(BSB)	23%	18%	18%	18%

Based on table 3.4, the results of observing children's numeracy skills using natural materials are the results of 4 indicators assessed, namely the *first indicator*, onecategory (BB) was no none Category (MB) is 2 children with a presentation of 12% assessment. Category (BSH) is 11 children with a 56% assessment presentation. Category (BSB) is 4 children with a presentation of 23%. The s*econd indicator*, category (BB) is 0. Category (MB) is 2 children with a rating presentation of 12%. Category (BSH) is 12 children with a 70% assessment presentation. Category (BSB) is 3 children with a presentation of 18%. The indicator for the three categories (BB) is 0. Category (MB) is 2 children with a rating presentation of 12%. Category (BSH) is 12 children with a 70% assessment presentation. Category (BSB) is 3 children with a presentation of 18%. The *fourth indicator*, category (BB) is 0. Category (MB) is 2 children with a rating presentation of 12%. Category (BSH) is 12 children with a 70% assessment presentation. Category (BSB) is 3 children with a presentation of 18%. From these data, the level of development of children's numeracy skills has reached the target.

a. Second meeting

The 2nd meeting in cycle 1I, was held on Tuesday, May 21, 2019. As in meeting 1, before being given action in the form of learning activities in meeting 2, the researcher first explained to the children about the activities carried out. There are also learning steps as follows.

1) Initial Activities

The initial activity carried out today was by reading a prayer before carrying out activities led by Alif, then the children greeted the teacher and friends and continued with attendance by the teacher. After that, the researcher asked the children to talk about the theme of my country. the researcher asked the children "what is the capital city of Indonesian"? while showing the letters that are pasted on the classroom wall. The child answered "Jakarta". Next, the researcher asked the children's feelings. The researcher asked the children "Are you happy today"? The children answered in unison "happy ". After that, the researcher asked the children to sing a song entitled Garuda Pancasila led by Robi. The researcher arranged the children's seats followed by the core activities.

2) Core Activities

Before doing the main activity, the researcher invites the children to

pay attention to the tools and materials that will be used in the activity of composing Indonesian and Jakarta letters based on shape, size and color as well as counting the number of Indonesian and Jakarta letters. The researcher explained "Today we will carry out activities to arrange Indonesian and Jakarta letters based on shape, size and color and count the number of Indonesian and Jakarta letters. Next, the teacher explained " we will arrange Indonesian and Jakarta letters based on shape, size and color and count the number of Indonesian and Jakarta letters. In the process of compiling Indonesian and Jakarta letters based on shape, size and color and counting the number of Indonesian and Jakarta letters, there were 14 children (A, R, V, L, J, RI, E, S, A, P NR, RY, K da, V) who is very active in counting the number of Indonesian and Jakarta letters. 3 children (H, K, and A) can count the number of Indonesian and Jakarta letters. After completing the activity of compiling Indonesian and Jakarta letters based on shape, size and color and counting the number of Indonesian and Jakarta letters, the researcher asked questions about the activities carried out by the children. The researcher asked “how many Indonesian and Jakarta letters did you arrange earlier? Some children (A, R, K) varied answering "10, 12, and 14 ". There are also children (V, P, J) who answered 6, 9, and 11 ".

3) Closing Activities

The teacher and children do a recall on the activity of compiling Indonesian and Jakarta letters based on shape, size and color and count the number of Indonesian and Jakarta letters that the children have done in the core activity. The teacher divides the children's work one by one. Then after that the teacher invited the children to sit on the bench and continued praying before going home led by Vera.

4) Observations of the Second Meeting

Table 3.5 Observation Results of the Second Meeting

No	Child Name	Rated Indicators			
		1	2	3	4
1	AL	BSB	BSB	BSB	BSB
2	ROI	BSH	BSH	BSH	BSH
3	RB	BSH	BSH	BSH	BSH
4	REI	BSH	BSH	BSH	BSH
5	JL	BSH	BSH	BSH	BSH
6	NR	BSH	BSH	BSH	BSH
7	VR	BSB	BSB	BSB	BSB
8	AS	BSH	BSH	BSH	BSH
9	AF	BSH	BSH	BSH	BSH

10	EJ	BSH	BSH	BSH	BSH
11	AV	BSH	BSH	BSH	BSH
12	ET	BS	BS	BS	BS
13	VT	H	H	H	H
14	SD	BS	BS	BS	BS
15	VH	H	H	H	H
16	PT	BS	BS	BS	BS
17	KV	H	H	H	H
		BS	BS	BS	BS
		H	H	H	H
		BS	BS	BS	BS
		H	H	H	H
		BSB	BSB	BSB	BSB

VALUE SCALE				
1 (BB)	0%	0%	0%	0%
2(MB)	0%	0%	0%	0%
3(BSH)	82%	82%	82%	82%
4(BSB)	18%	18%	18%	18%

Based on table 3.5, the results of observing children's numeracy skills using natural materials are the results of 4 indicators assessed, namely the *first indicator*, category (BB) is 0. Category (MB) is 0. Category (BSH) is 14 children with an assessment presentation of 82% . Category (BSB) is 3 children with a presentation of 18%. The *second indicator*, category (BB) is 0. Category (MB) is 0. Category (BSH) is 14 children with an 82% rating presentation. Category (BSB) is 3 children with a presentation of 18%. The indicator for the *three categories* (BB) (BB) is 0. Category (MB) is 0. Category (BSH) is 14 children with an assessment presentation of 82%. Category (BSB) is 3 children with a presentation of 18%. The *fourth indicator*, category (BB) is 0. Category (MB) is 0. Category (BSH) is 14 children with an 82% rating presentation. Category (BSB) is 3 children with a presentation of 18%.

Reflection

Reflection was carried out by researchers to see the actions given and the effect of the use of natural materials on the numeracy skills of children aged 5-6 years at PAUD Wae Welak. In this second cycle, researchers observed the course of activities to see the increase in children's numeracy skills by using natural materials. The results of research observations show that the implementation of the actions taken in the second cycle has been going according to plan.

Based on the results of the activities carried out by the researcher and the children at the initial meeting until the final meeting using natural materials went according to plan. The positive influence is increasingly seen when children carry out activities confidently and independently. Based on data from cycle I and cycle II, children's numeracy skills have increased in each indicator.

Discussion

This research was carried out in 2 cycles, namely cycle 1 and cycle II. Each cycle starts from Planning, Implementation of Action and Observation and Reflection. Cycle 1 was carried out for 2 meetings and Cycle 2 was carried out for 2 meetings. Based on the results of data analysis from pre-action to cycle 2 actions there was an increase. Judging from the percentage increase in children's numeracy skills in cycle I, namely 52% and cycle II, namely 88%. Based on this, then through the use of natural materials media can improve the numeracy skills of children aged 5-6 years in PAUD Wae Welak acceptable.

The results of qualitative data prove that the use of natural materials media can improve the numeracy skills of children aged 5-6 years, one of which can be seen in the activity of counting the number of grains and letters of Indonesia and Jakarta based on the shape, size and color. Objects with natural materials provided. The children looked active during the learning activities by counting the number of objects with natural materials provided and providing new experiences for children.

Susanto (2011: 100) states that counting activities for children must be done in an interesting and fun way so that the concept is truly understood by children. Activities using natural materials can help children to count the number of grains and letters of Indonesia and Jakarta based on shape, size and color as well as to hone children's numeracy skills at home. In this activity, researchers found advantages in the use of natural materials in learning to count. The advantages obtained from the use of natural materials are that they are easy to obtain and cheaper because they are in the environment around children such as green beans, rice, soybeans and pieces of wood.

CONCLUSION

Based on the results of the data analysis described in CHAPTER IV, several conclusions can be drawn, namely; grains that are around children can be used as learning media for early childhood, especially in improving numeracy skills in PAUD Wae Welak which was carried out in cycle I and cycle II. Based on the results of data collection, data processing and evaluation, the researchers concluded that there had been increasing the ability to count by

utilizing natural materials in group B children at PAUD Wae Welak.

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