

Improving Cognitive Skills Through Loose Part Media in Group B of the Principal State Kindergarten of Waisai, Raja Ampat District

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ABSTRACT

This research was motivated by children's lack of creativity in creating and selecting appropriate learning media for students. Because it is still dominated by Children's Worksheets (LKA). The aim of this research is to describe the use of loose parts media to develop creativity in early childhood as well as supporting and inhibiting factors for the use of loose parts media in the Pembina Waisai State Kindergarten. This research uses qualitative field research methods. The data source was taken from the B1 group of the Pembina Waisai State Kindergarten. Research instruments include observation, interviews and documentation. Meanwhile, the data analysis technique uses Miles and Huberman analysis which consists of data reduction, data presentation and drawing conclusions. The results obtained from this research show that the use of loose parts media in learning plays a role in developing creativity in early childhood by carrying out all stages of using loose parts media using playing strategies, tidying up and storing things as well as various strategies for increasing creativity (product creation, imagination, exploration, and experimentation). In this regard, the supporting factors for the use of loose parts media lie in the role of good teachers and parents as well as the availability of a variety of loose parts media around the school environment and the inhibiting factors lie in children's interests and moods which cannot be conditioned properly.

INTRODUCTION

Early childhood education (PAUD) is the level of education before basic education which is a coaching effort aimed at children from birth to eight years of age. The educational process is carried out by providing educational stimuli to help physical and spiritual growth and development so that children are ready to enter further education, which is carried out in formal, non-formal and informal channels. Parents and the government are obliged to provide educational facilities and infrastructure for children within the framework of learning programs. Based on experience, learning is a child's right, so learning must be fun, and conducive and enable children to become motivated and enthusiastic. early childhood by using media to facilitate the learning process. Without realizing that in the learning process, there is no need to use expensive learning media but you can use objects around the child which are called Loose Parts.

Loose Parts are open materials that can be separated, put back together, carried, combined, lined up, moved, and used alone or combined with other materials which can be natural or synthetic, when children play Loose Parts children can play with the materials. according to the child's wishes children can combine games from similar materials or can add materials that are not similar freely and openly (Yulianti, 2020). Loose Part materials are materials that are easily available in the everyday environment and contain elements of plastic, natural materials, metal, used packaging, wood and bamboo, glass and ceramics, thread and cloth from games that use Loose Part materials children can freely build a place or create an activity through their imagination with the materials available.

Next, cognitive development is the development of the mind. Thoughts are part of the thinking process of the brain. The mind is used to recognize, know and understand the theory of stages of cognitive development according to Jean Piaget. humans in their lives must go through four stages of cognitive development, as each stage is related to age and consists of a unique or different way of thinking. The four stages include the sensorimotor stage, pre-operational stage, concrete operational stage and formal operational stage. Early childhood is at the sensorimotor and preoperational stages. So cognitive abilities are the ability to think logically, and critically, give reasons, solve and find cause-effect relationships.

The results of observations made at the Pembina Waisai State Kindergarten, Raja Ampat Regency, showed that there were problems related to the interests of children aged 5-6 years, namely that children could not be creative well when the learning process was carried out at home. Children are still waiting for the teacher to provide examples or carry out the learning process. During this time, children do not have the enthusiasm to put forward their ideas before the teacher gives an example and in the end, the child puts forward his idea before the teacher gives an example and in the end, the child just imitates. Even though the teacher still accompanies him, he is dominant.

The playing method using the Loose Part game is very suitable for early childhood. Because young children learn to use all their five senses. So by using

Loose Part media, children can immediately see and touch to recognize various textures of objects using all their imagination to create a work using various media. By playing Loose Part, young children can become more familiar with the environment and the objects around them, understanding that these objects can be used or can be used.

The aim of learning using Loose Part materials is that children will become more creative because children are free to be creative in dismantling the Loose Part materials provided according to their imagination. Apart from that, you can also use objects around you and help preserve the environment and you can understand that used items can be recycled and can be used as tools for playing and you can be creative by assembling them into useful items. From the description above, the author is interested in conducting research with the title "Improving Cognitive Abilities Through Loose Part Media in the Pembina Waisai State Kindergarten, Raja Ampat Regency, West Papua.

LITERATURE REVIEW

Loose Parts are open materials that can be separated, put back together, carried, combined, lined up, moved, and used alone or combined with other materials which can be natural or synthetic, when children play Loose Parts children can play with the materials. according to the child's wishes children can combine games from similar materials or can add materials that are not similar freely and openly (Yulianti, 2020). Loose Part materials are materials that are easily available in the everyday environment and contain elements of plastic, natural materials, metal, used packaging, wood and bamboo, glass and ceramics, thread and cloth from games that use Loose Part materials children can freely build a place or create an activity through their imagination with the materials available.

METHODOLOGY

Data Collection Technique

The data obtained from the results of this research are qualitative. Quantitative data is data obtained from the results of calculating numbers. Qualitative data consists of the results of observing student activities and the results of adding and grouping shells. Apart from that, this research also uses qualitative data. Qualitative data is data resulting from analysis not in the form of numbers but described in words. The data collection technique used in this research is observer sheets or observation and documentation.

Data Analysis Techniques

In this research, the data analyzed is the result of learning activities on the cognitive ability to add and group bottle caps. Analysis of student learning is carried out at each meeting I and II using quantitative descriptive percentage techniques. The formula used in data analysis using percentage quantitative descriptive techniques according to Anas Sudijono (2010: 43) is as follows:

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

Information:

f = Frequency for which the percentage is sought

N = Number of cases/number of

To determine the increase in students' cognitive abilities to group objects was done by making a comparison of the percentage scores obtained by students before and after learning using natural shellfish as a medium. The work indicators in this research are cooperation, activeness and student learning outcomes where at the beginning of the implementation of educators and students in the learning process it was seen that 4 students increased by 20% after using shell media to 10 students or 80% or with sufficient criteria.

RESULTS

This research was conducted at the Pembina Waisai State Kindergarten, Raja Ampat Regency, which is located at Jalan Jenderal Sudirman / Jln.30. Sapordanco Village, Waisai City District, Raja Ampat Regency and this research was carried out in the odd semester at the Pembina Waisai State Kindergarten in group B for the 2022 / 2023 Academic Year. The research took place over a long period of 1 (one) month, September to October 2023.

Waisai Raja Ampat Private Kindergarten Teacher Data

Table 1. Educator Data

No	Teacher name	Status	Gender
1	Yolan . B. Ula, S.Pd, Gr	Civil servants	Woman
2	Murtiatun Rohmiati, S.Pd	PPPK	Woman
3	Widayastuti Z. Wahab, S.Pd, Gr	PPPK	Woman
4	Lilis Hermawati, S.Pd, Gr	PPPK	Woman
5	Feronika Marantika	PPPK	Woman
6	Ulfa Sahidayati M. Nur, S.Pd	Honour	Woman
7	Bertha Abaire	Honour	Woman
8	Lucytania D Manoppo	Honour	Woman
9	Yohana Karesina, S.Pd	Honour	Woman
10	Dewi Murniasih	Honour	Woman
11	Samuel J Adoy	Honour	Man

Table 2. Infrastructure

No	Infrastructure	Amount
1	Classroom A	1 ruang
2	Class B Room	1 ruang
3	Class B Room	1 ruang

4	Office	1 ruang
5	a. Supporting facilities b. Wireless - Laptop - Cellphone c. Sports equipment d. Page e. WC / Bathroom f. e. Play equipment outside and inside the classroom	

Pre-Cycle Description

This research was conducted at the Pembina State Kindergarten, Raja Ampat Regency, group B, totaling 15 students, using Loose Part media. For cognitive abilities, the research took place over 2 weeks in October 2022, namely the third week and fourth week of the cycle, which involved 2 meetings. The data needed in this research is quantitative. Data collection was carried out by direct observation during the learning process using instruments compiled by the researcher himself.

Researchers consider that developing cognitive abilities through Loose Part media is said to be successful if a maximum of 80% of all students present master cognitive abilities from each aspect of at least 3, and the overall class average falls into the category as expected. This classroom action research was carried out in two cycles which were deemed capable of complying with research satisfaction in achieving the desired results and overcoming existing problems. The following is the Student Assessment Table at the Pre-Cycle Stage:

Table 3. Results of Student Observations at the Pre-Cycle Stage

No	Child's Name	Assessment Items			Amount	Score
		Mengenal Angka 1-10	Grouping Bottled Water Bottle Caps	Say Numbers 1-10		
1	AL	2	1	2	5	83,3
2	ALZ	1	2	2	5	83,3
3	ALI	1	1	1	3	50
4	AXE	1	1	2	4	66,6
5	BAN	1	1	1	3	50
6	FLO	1	1	2	5	83,3
7	GAV	2	1	1	4	66,6
8	HAW	1	1	2	4	66,6
9	HEN	1	2	1	4	66,6
10	JAV	1	1	1	3	50
11	KIR	1	1	2	4	66,6
12	LA O	1	1	2	4	66,6
13	MUA	1	1	2	4	66,6
14	MUH	1	1	2	4	66,6
15	NAT	1	1	2	4	66,6

Jumlah	12	12	15	40	666,3
Rata-Rata	0,83	0,83	1,5	4	66,63
Persentase	60%	60%	66%	25%	67%

Based on the table above:

1. In the aspect of recognizing numbers 1-10, out of 15 students, 2 students got a score of 2 (MB) and 13 students got a score of 1 (BB). Thus the achievement score for connecting recognizing numbers 1-10 is 0.83 or 60%.
2. In the aspect of grouping bottled water bottle caps, out of 15 students, 2 students got a score of 2 (MB) and 13 students got a score of 1 (BB), the achievement in grouping bottled water bottle caps was 0.83 or 60%.
3. In the aspect of saying numbers 1-10, out of 15 students, 10 students got a score of 2 (MB) and 5 PDs got a score of 1 (BB). Achievement in saying the numbers 1-10 is 1.5 or 66%.

Description of Cycle Implementation Results

The results of this research were obtained from actions carried out through several stages in cycle I and cycle II. The results of this research are the results of an assessment of the evaluation carried out through observations by researchers regarding efforts to improve cognitive abilities through Loose Part media (Bottled Water Bottle Caps) in group B semester 1 at the Pembina State Kindergarten, Raja Ampat Regency. This research uses qualitative data analysis through a reflection process, it is determined that cognitive ability efforts are carried out through Loose Part media (Bottled Water Bottle Caps). Each research cycle consists of 4 stages, namely:

1. Planning
2. Implementation
3. Observation
4. Reflection

Table 4. Student Observation Results in Cycle I Stage

No	Child	Assessment Items			Amount	Score
		Recognizing Numbers 1-10	Grouping Drink Bottle Caps	Say Numbers 1-10		
1	AL	3	3	3	9	100
2	ALZ	3	3	3	9	100
3	ALI	2	2	2	6	66,6
4	AXE	3	2	2	7	77,7
5	BAN	2	3	2	7	77,7
6	FLO	3	2	3	8	88,8
7	GAV	2	1	3	6	66,6
8	HAW	1	1	2	4	44,4
9	HEN	2	2	3	7	77,7
10	JAV	1	2	1	4	44,4

11	KIR	1	1	2	4	66,6
12	LA O	1	1	2	4	66,6
13	MUA	1	1	2	4	66,6
14	MUH	1	1	2	4	66,6
15	NAT	1	1	2	4	66,6
Total		22	21	24	67	743,9
Average		2,2	2,1	2,4	6,7	74,39
Percentage		73%	70%	80%	15%	74%

Based on table 4.2 above:

1. In the aspect of recognizing numbers 1-10, out of 15 students, 4 students got a score of 3 (BSH) and 6 students got. Score 2 (MB). Thus the achievement score for connecting and recognizing numbers 1-10 is 2.2 or 73%.
2. In the aspect of classifying Drink Bottle Caps, out of 15 students, 3 students got a score of 3 (BSH) 5 students got a score of 3 (MB) and 2 students got a score of 1 (BB). Thus the achievement score for grouping bottled water bottle caps is 2.1 or 70%.
3. In the aspect of saying numbers 1-10, out of 15 students, 5 students got a score of 3 (BSH) 4 PDs got a score of 2 (MB) and there was 1 student who got a score of 1 (BB). Thus the achievement score for saying the numbers 1-10 is 2.4 or 80% Reflection

Based on the description of the results from cycle I, the rights can be explained as follows:

From the results of observations, it can be seen that in the learning process, students are becoming more active, enthusiastic and motivated in the activity of grouping and adding bottle caps. Students are starting to develop and develop according to expectations. Several aspects must be improved which will hopefully improve students' cognitive abilities so that they develop very well.

Table 5. Student Observation Results in Cycle II Stage

No	Child's Name	Assessment Items			Amount	Score
		Recognizing Numbers 1-10	Grouping bottled water bottle caps	Say Numbers 1-10		
1	AL	4	4	4	12	100
2	ALZ	4	4	4	12	100
3	ALI	3	3	3	9	75
4	AXE	3	3	3	9	75
5	BAN	3	3	3	9	75
6	FLO	4	4	4	12	100
7	GAV	3	3	3	9	75
8	HAW	3	2	3	8	66,6
9	HEN	2	3	3	8	66,6

10	JAV	3	2	3	8	66,6
11	KIR	1	1	2	4	66,6
12	LA O	1	1	2	4	66,6
13	MUA	1	1	2	4	66,6
14	MUH	1	1	2	4	66,6
15	NAT	1	1	2	4	66,6
Amount		32	31	3	96	799,8
Average		3,2	3,1	3,3	9,6	79,98
Percentage		93%	96%	90%	31%	80%

Based on table 4 - 3 above:

1. In the aspect of recognizing numbers 1-10 out of 15 students, 6 students got a score of 3 (BSH) and 9 students got a score of 4 (BSB), thus the achievement score for recognizing numbers 1-10 was 3 .2 or 93%, and there was 1 student who got a score of 2 (MB).
2. In the aspect of grouping bottled water bottle caps, out of 15 students, 5 students got a score of 3 (BSH) and 3 students got a score of 4 (BSB), thus the achievement score for grouping bottled water bottle caps was 3. 1 or 96% and 2 students got a score of 2 (MB).
3. In the aspect of saying the numbers 1-10, out of 15 students, 5 students got a score of 3 (BSH) and 10 students got a score of 4 (BSB), thus the achievement score for saying the numbers 1-10 was 9, 6 or 31%.

DISCUSSION

Based on the results of research data in cycle I, the researcher carried out pre-action activities to determine the initial cognitive abilities of students. It can be observed that children experience the development of their abilities after cycle I. In cycle I it can be observed in the learning process using bottled water bottle caps, namely when the researcher Invites students to group and add using bottled water bottle caps. Children are very enthusiastic and very enthusiastic. This can be seen from the students' interest when learning to group and add numbers 1-10. However, some students still make mistakes in both. Name and recognize bottle caps.

In cycle II, it can be seen that there was an increase that occurred, namely after the researcher motivated students to use Bottle Cap media with various kinds of Bottle Caps so that students who already could recognize numbers better, group bottle caps, say numbers 1-10, add them up so that the participants Students are more enthusiastic about participating in this activity easily and with fun. Related to cycle I and cycle II, namely learning to group using bottle caps, students' ability in 1-10 increases in grouping Loose Parts. This is because learning is done by playing using Loose Parts which is fun. The following is a table of child observation results.

Table 6. Observation Result

Observation Items	Observation result		
	Precycle	Cycle I	Cycle II
	Skor	Skor	Skor
Recognize numbers 1-10	0,83	2,2	3,2
Grouping Loose Parts	0,83	2,1	3,1
Say the numbers 1-10	1,5	24	33
Amount	3,16	28,3	39,3
Average	1,05	9,43	13,1
Percentage	67%	74%	80%

Based on the results of observations in Table 4.4

1. The achievement results at the pre-cycle stage received a total score of 3.16 with an average of 1.05, so the achievement percentage was 67%.
2. In the first cycle, the total score achieved increased to 28.3 with an average score of 9.43, thus the achievement percentage was 74%.
3. Then in cycle II the total score was 39.3 with an average score of 13.1, so the achievement percentage was 80%.

This means that the indicators for each cycle increase more than the pre-cycle and cycle I.

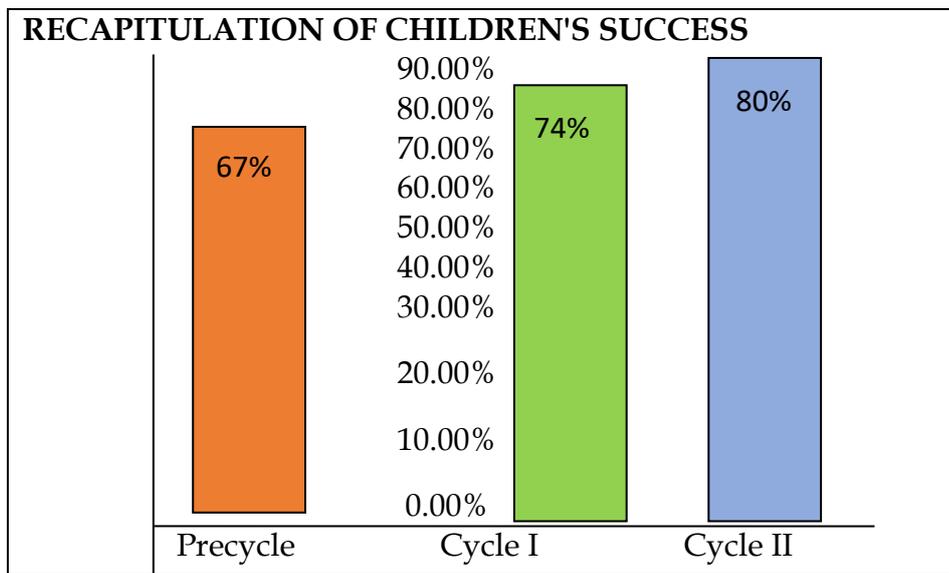


Figure 1. Diagram of Average Value of Recapitulation Results of Average Achievement of Abilities Cognitive Through Loose Part Media When Presented

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of observations of research on data in the previous chapter, it can be concluded that to improve cognitive abilities through the medium of natural materials shellfish in group B in the Pembina State Kindergarten, Raja Ampat Regency. The results of the research show that by using Loose Part media in cycle I and cycle II there was an increase of 74%,

increasing to 80% seen from the observation table in cycle II, apparently 80% were seen to have achieved the expected target. This means that the research has achieved a level of success. This shows that naming/grouping shellfish in group B at the Pembina State Kindergarten, Raja Ampat Regency has been successful.

The activities of researchers and students in each cycle have increased. In cycle I, the activities of researchers and students still encountered obstacles that had not been successful and had not been completed. After cycle II, there were improvements in student activities related to the learning process by using supportive media so that students' abilities in developing cognitive abilities developed well.

FURTHER STUDY

This research still has limitations so further research on the topic still needs to be carried out "Improving Cognitive Skills Through Loose Part Media in Group B of the Principal State Kindergarten of Waisai, Raja Ampat District."

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