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THE EFFORTS TO IMPROVE STUDENTS' UNDERSTANDING OF COUNTING OPERATION THROUGH PICTURE CARD GAME AT ELEMENTARY SCHOOL

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Abstract

The learning process of Mathematics in first grade at SDN 10 Sungai Kakap has tended to be conventional and minimal in using media. In the learning process, students feel bored and did not understand the concept of addition. Therefore, classroom action research was carried out to improve the process and learning outcomes of educators by using picture card games. This study aimed to improve students' understanding of the addition count operation using picture card games. The research subjects were 1 A class students of SDN 10 Sungai Kakap, Kubu Raya Regency, 2018/2019 academic year. Based on the results of classroom action research, it can be concluded that the picture card game can improve the understanding of the addition count operations and the active role of students in learning. It could be seen from the presentation of completeness achieved by students. In the initial data of students who have not completed, it reached 53.33%, after improvements in cycle I the completeness increased to 63.33%. There was improvement in the learning process in cycle II to achieve the success criteria based on the results of reflection in cycle I. After completing the test, it increased to 93.33%, and there were still 6.67% of students who had not completed it.

Keywords: *Counting Operation, Picture Card Game, Understanding*

Introduction

An elementary school is a formal education unit that provides general education at the basic education level. As stated in law number 20 of 2003 concerning the national education system (article 17 paragraph 1), primary education is education that underlies secondary education.

Considering that primary education is the basis on which students go to a higher level of education, a correct and strong basic understanding is needed so that students are expected to be ready to receive material at the next education level. There are developmental aspects that make targets in developing education in elementary schools, namely aspects of religious and moral values, physical motor, cognitive, language, social-emotional, and artistic aspects which are reflected in the balance of competence in attitudes, knowledge, and skills that are mixed in the thematic learning process.

In the 2013 Curriculum for Elementary School Level, understanding a concept for first grade students requires a way, strategy, or still real method. Such as the competence to be achieved in class students in all subjects, namely understanding factual knowledge by observing, hearing, seeing, reading, and asking questions based on curiosity about himself, God's creatures and their activities, and objects they find at home, school.

Therefore, in the learning process, using all five senses to understand a concept and in a short time, the child will switch to something else or something new to learn. However, sometimes the teacher and the environment are not supported, so that the child is hampered in developing learning abilities and exploration.

One of the problems is students do not understand adding numbers to two or more numbers. It is necessary to use real objects or manipulation of real objects to make it easier for students to understand the counting operation of the sum of two or more numbers. As found in 1 A class at SDN 10, Sungai Kakap District. Based on the mid-semester test analysis results in the 1st semester of the 2018/2019 academic year, it was found that students' ability to solve the counting operation of two numbers or more was still low, 17 of the 30 students still could not. So the researcher, who was also a teacher in 1 A class, tried to improve learning by applying the game method using picture cards to enhance students' understanding of the addition of two or more numbers and see students' activeness during the learning process.

Based on this background, the following problems were formulated: (1) Can picture card games improve the understanding of the additive counting operations for class 1A students of SDN 10 Sungai Kakap ?; (2) Can the picture card game increase the activeness of the learning process of students in the sum arithmetic operation?

This study aimed to: (1) Knowing the picture card game can improve the understanding of the counting operations of class 1A students of SDN 10 Sungai Kakap; (2) Knowing the picture card game can increase the activeness of students in the learning process of the addition count operations.

A person who is doing a learning activity because he/she wants to know something he/she doesn't know yet. For example, someone buys a computer so that person can operate the computer. People will learn how to operate a computer, the various ways a person learns, study with someone who is already proficient, and read predetermined instructions, videos, and others.

So learning, according to Abdillah's opinion as quoted by Aunurrahman (2010: 35), explained that "learning is a conscious effort made by individuals in changing behavior through training and experiences involving cognitive, affective and psychomotor aspects to achieve certain goals. "

Thus it can be concluded learning is a change in behavior in learning individuals. This change is related to the addition of knowledge and the form of abilities, skills, attitudes, understanding, self-esteem, interests, character, self-adjustment. So, it can be said that learning is a series of mental and physical activities that lead to the development of the whole human person.

From the problems in the field, several stages of indicators serve as a measuring tool or reference for improving numeracy skills from the Ministry of Education and Culture No. 146, 2014, among others: (1) the first stage, remembering the names of numbers, that is, the child can say or remember names numbers from 1-10 correctly; (2) the second stage is to pronounce the sequence of numbers correctly and consistently, namely when the child can remember the name of the number correctly, the child is asked to sort the numbers 1-10 so that for children playing is life and life is a game.

According to Mayesti, Elementary school-age children did not differentiate between playing, studying, and working because children generally enjoy playing and will continue to do any form of activity and wherever they had the opportunity to play (Nur, 2013).

The benefits of playing games based on the opinion of Kurniawati (2013) were the needs of children in the scope of their life, through games, children learn to survive and find patterns in their lives, games are the basic purpose of learning in childhood so that children can gradually develop the concept of relationships reasonable, the ability to distinguish, assess,

analyze and take the essence to imagine. Besides that, games are fun activities carried out by children.

With games, children can do many things. One of them can improve numeracy skills. The play has the main objective of maintaining optimal development or growth of early childhood through creative, interactive, and integrated play approaches with children's play environments (Nur, 2013).

Research Method

The Research type was a Classroom Action Research (CAR) designed in a repetitive cycle. Each cycle consists of 4 stages, namely planning, action, observation, and reflection (Arikuntoro, 2006). Based on the first cycle reflection, improvements were made for learning actions in the second cycle. In the second cycle implementation, the stages carried out are the same as the first cycle. The cycle was stopped when the learning objectives were in accordance with the level of achievement of the expected development.

The research was carried out at SDN 10 Sungai Kakap, Sungai Kakap District, Kubu Raya Regency for the 2018/2019 academic year. In one class, totaled 30 students, consisting of 16 female students and 14 male students.

As for the consideration in choosing a location, namely SDN 10 Sungai Kakap because it was easy to obtain the necessary data related to the level of achievement of children's numeracy development and to find and see that in 1A class was still lacking in understanding the operation of counting sums. So the authors conducted research that was planned and carried out during the learning process taking place in the first semester from September to November in the 2018/2019 academic year. With reference to the school's academic calendar.

The data collection technique is the most strategic step in research because the main objective is to get data. In this study, data collection used methods, namely: (1) Observations made in the learning process and on learning outcomes obtained by students after participating in learning; (2) Documentation, namely looking for data in accordance with variables in the form of notes, transcripts, newspapers, magazines, inscriptions, agendas. This study used a qualitative descriptive analysis technique. Qualitative descriptive techniques are used to explain the words of all the conclusions of the research results. Data analysis was carried out on all available data from the acquisition in the field, from various sources, namely observation and documentation. This data analysis uses the formula calculation technique from (Sugiyono 2009 in Nur, 2013):

$$N = \frac{\sum s}{\sum s \max}$$

Information :

$\sum s$ = score obtained

$\sum s \max$ = maximum score

N = Value obtained by students.

Students who were declared successful in achieving the level of achievement of the development of the ability to count 1-80 were those who got the highest score, namely 100. Students who were declared complete if they got a score of 75 and above, while for students who had not succeeded were the students who got a score below 75. This study was successful if 87% of the students in the class had completed it.

Result and Discussion

The classroom action research was conducted for 1 A class students at SDN 10 Sungai Kakap, Kubu Raya Regency, 2018/2019 academic year, semester I. With a total of 30 students, consisting of 16 female students and 14 male students. Researchers focused on students who

had not yet completed the addition and activity count operations of students during the learning process.

The learning was held in two cycles. Each cycle had two meetings. In the learning used by researchers to support the success of teaching and learning activities was lesson plan. It compiled by the researcher which contains details of the learning material that has been determined in each meeting in cycle I, namely from the opening, core activities, and closing. Based on the results of daily tests and general tests that have taken place in semester 1, the researcher obtained the results of the data on the understanding of the counting operation of the students' counting as a graphic as follows:

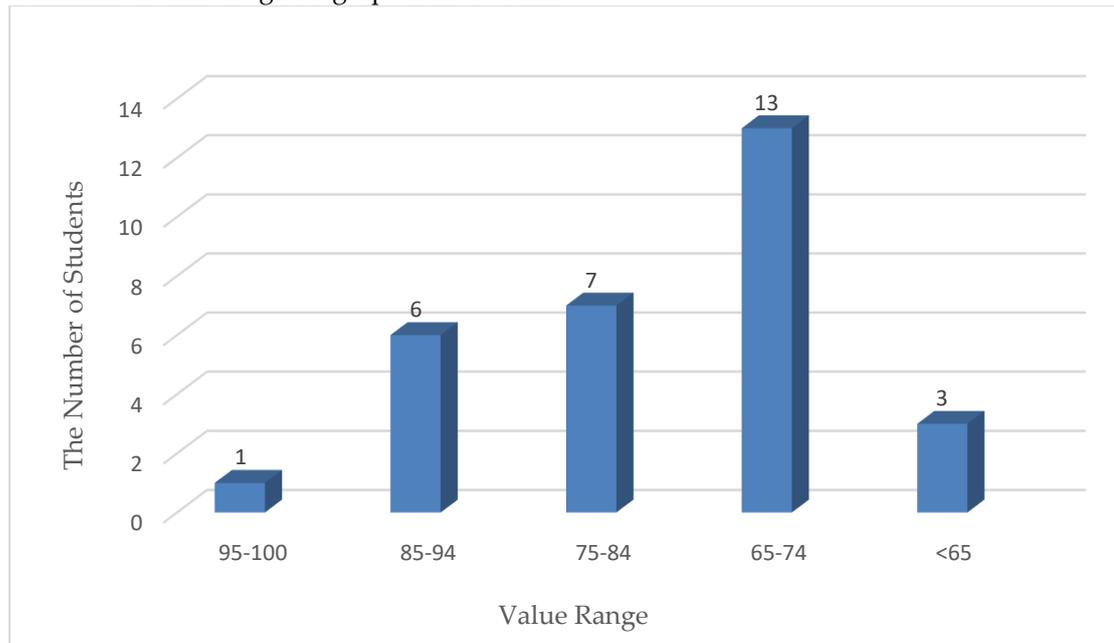


Fig 1. The Results of Daily Tests and General Tests

Achievement of the KKM regarding the addition count operation obtained 16 students or a percentage of 53.33% of students who still tended not to understand the addition count operation. And only 14 students understand the addition arithmetic operation. From the results of the initial data that there were several children in counting the number of objects given by the researcher, it was seen that the children were still confused in adding objects by matching the number symbols. To improve students' understanding of arithmetic operations, the researchers made improvements to the learning activities designed in cycle 1, using number card games. The learning steps in the first cycle were (1) Paste on the board the pictures of a group of goats ranging from 1 to 3 goats; (2) Note that the answer to the total number of feet for two goats = eight and the total number of feet for three goats = 12, there is a possibility that students have different ways of thinking (different constructions in their minds). After finishing, the teacher demonstrated how and explained the arithmetic operation. The teacher gave an assignment in the form of a number card game. Developing their skills began with group games, group representative games and end with individual games. Finally, if necessary, it was perfected by looking away when students were going home from school. Students who could answer correctly were immediately allowed to return home, while students who answered incorrectly were detained for return. From the results of the test data, the following data were obtained from the graphic:

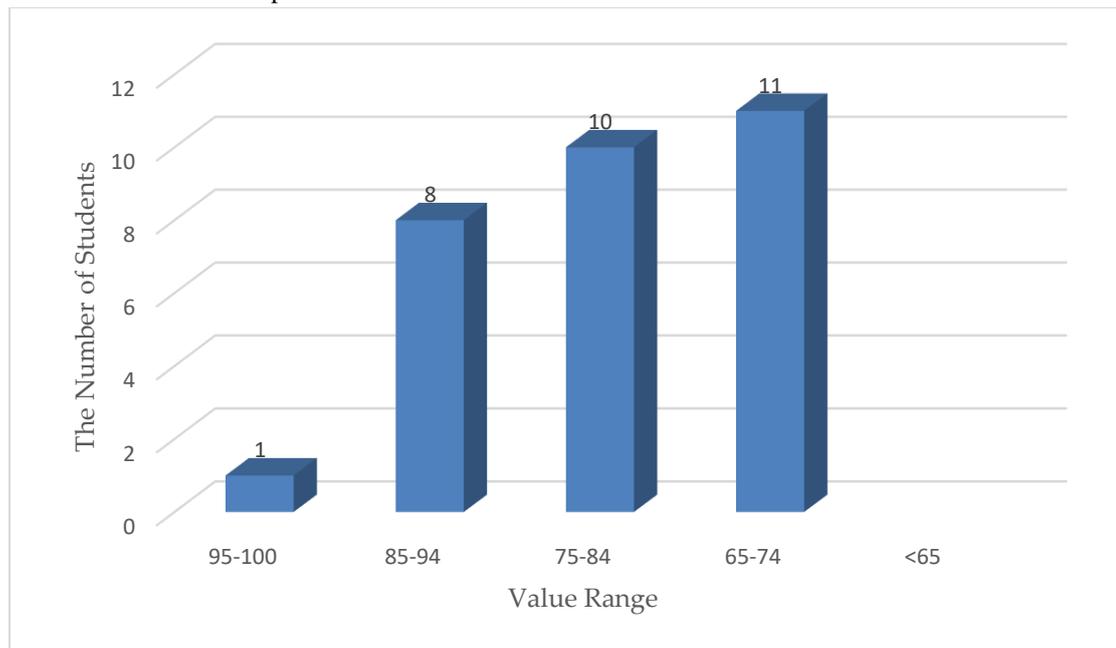


Fig. 2 The Students' Completeness in Cycle I

From the arithmetic ability graphic in cycle I, there was an increase from the pre-cycle meeting where students who completed increased to 19 people or 63.33%, and there were still 11 people or 36.67% who had not been completed, so the researcher made up the learning in cycle II with use game cards.

The researcher made learning improvements using number cards in cycle II, where the teacher provided question cards and answer cards. There were steps for building skills with group games and individual games. Oral counting skills, the students were shown in the following diagram:

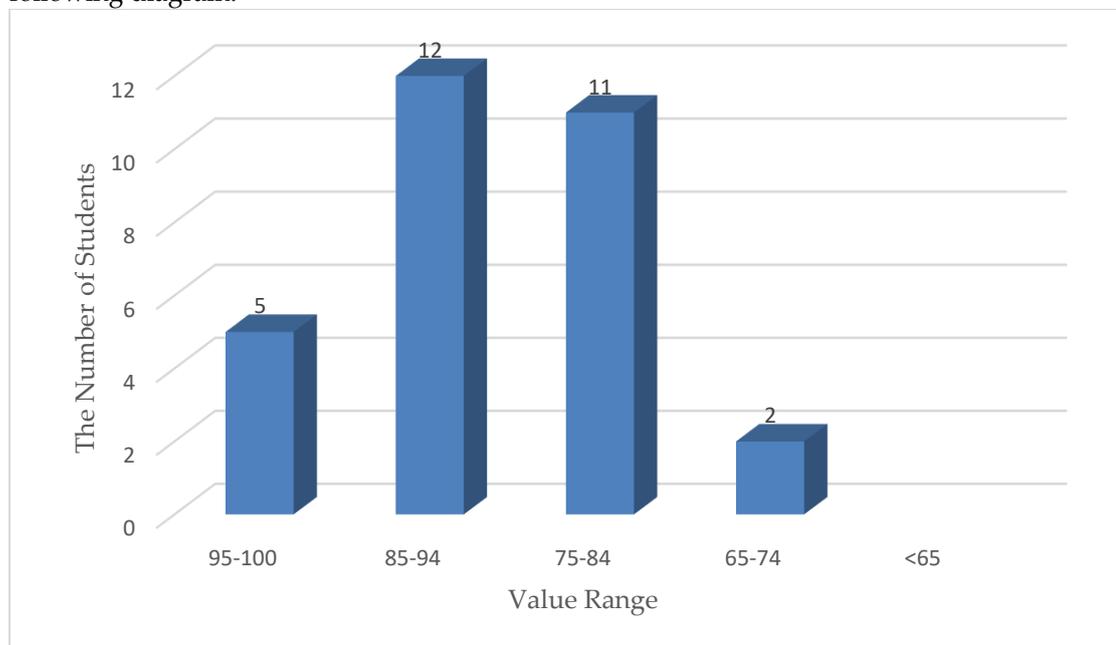


Fig. 3 The Students' Completeness in Cycle II

It could be seen clearly from the figure above that the numeracy ability of summation has increased by 28 students complete or about 93.33%. The highest score was 95, and the lowest score was between 65-74, and there were still two students, or 6.67%, who had not

completed. Even though students have not yet completed it, it was considered normal considering that students' abilities were not the same. Researchers believed that those who were not finished will be complete by practicing themselves at home regularly with the student's guardians' help.

In terms of the learning process activity, learning by using picture cards, students appeared enthusiastic and active during learning activities. From the preliminary data obtained, some influences make it lacking in cognitive abilities, especially in children's oral numeracy skills, namely: (1) Media did not attract children in activities; (2) The form of learning always used the classical model, not the setting with learning the form of a game.

The following was a graphic of the percentage of learning completeness through picture card games:

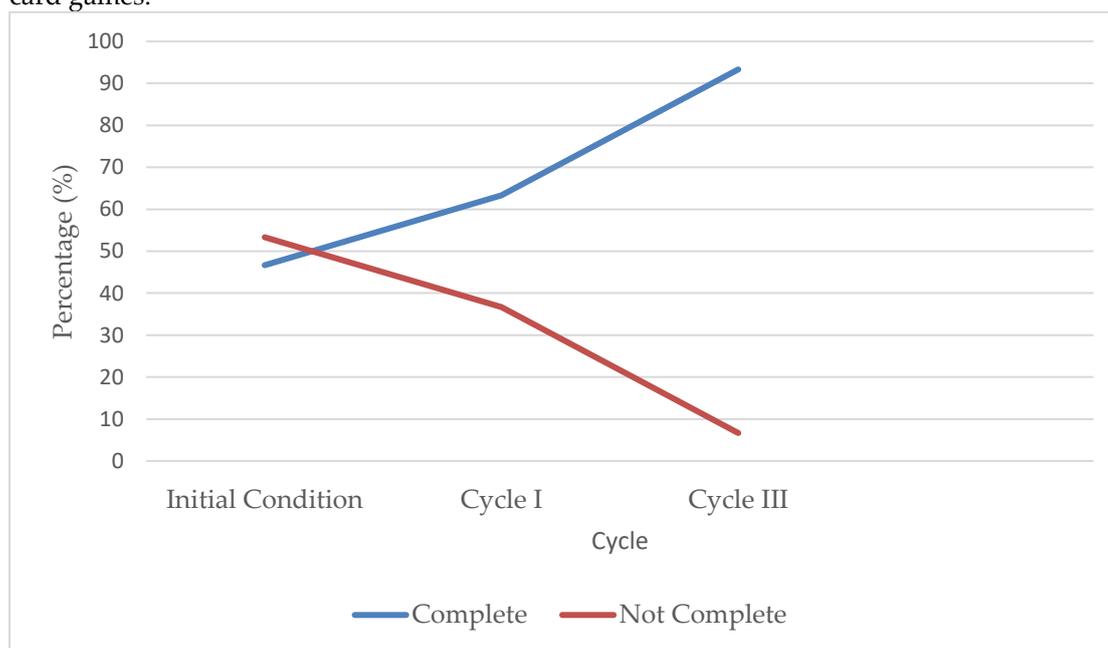


Fig. 4 The Percentage of Learning Completeness Through Picture Card Games

It could be seen the results of the comparison of the percentage from the previous state of action to action in cycle II, which have been carried out at three meetings. The success in improving oral counting skills and written numeracy skills of children was the students felt enthusiastic when the learning process took place, it was better if learning was formed in a game, the students who participated in these activities would not feel bored, and the students would feel engaged directly in playing active games and could cooperate and socialize with peers. From this, there was a cognitive increase, especially in students' numeracy skills. The media tools used in learning must also be as attractive as possible. Students feel interested and curious when playing or learning activities took place with the aid to be used.

The picture cards would make it easier for children to learn counting operation because they played active games with concrete objects, such as picture cards with number symbols on plastic cups that researchers used as aid when playing games. The research results proved that picture cards game could improve 1A class students' numeracy skills of SDN 10 Sungai Kakap, 2018/2019 academic year.

Conclusion

Based on the results of classroom action research, it can be concluded that the picture card game can improve the understanding of the counting operation of 1A class students at

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SDN 10 Sungai Kakap, Sungai Kakap sub-district, Kubu Raya Regency, 2017/2018 academic year as well as an increase in the active participation of students in the learning process.

It could be seen from the completeness presentation achieved by students wherein the initial data of students who had not completed it reached 53.33% after improvements were conducted in cycle 1, the completeness increased to 63.33%. To achieve the success criteria, the process was improved again. Learning in cycle II and after completing the test increased to 93.33%, and there were still 6.67% of students who had not yet completed it. However, the researchers considered it reasonable because students' thinking abilities were different.

Researchers see and realize that learning that is formed in a game or not in a classical learning model will make students feel enthusiastic and interested and not feel bored because picture card games will be done by playing together in groups so students will feel included in the game children can actively and directly socialize when learning to count is carried out.

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