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Improve Learning Achievement by Using Concrete Objects on Student Class 2

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1. Abstract

This research is motivated by the low learning achievement of class II students at SDN Karangmulyo. This is shown from the results of interviews with class II teachers at SDN Karangmulyo and from the results of observations that have been made. To respond to this, the researcher conducted a class action research which aimed to find out the increase in the learning achievement of class II students at SDN Karangmulyo using concrete objects. This research was conducted in two cycles. This research was conducted at SDN Karangmulyo especially in class II with a total of 18 students. Data collection techniques used are observation, tests and documentation. Data analysis techniques use qualitative and quantitative data analysis techniques to determine the percentage of student achievement in cycles I and II. The results of this study indicate an increase in each domain in each cycle. By using concrete objects students gain learning experience by generating ideas or ideas that are conceptual in accordance with what they see, so as to increase student achievement. Based on the results of this increase, it can be a recommendation for teachers to use concrete objects to improve student achievement.

Keywords: *learning achievement, mathematics, concrete object*

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2. Introduction

In the current era there are many changes that have a positive impact on everyone or all living things on this earth. The impact that occurs is enormous on various aspects of human life in all levels of society. Both in the economic, social, political, technological, environmental, cultural, and also in the education sector. The positive impact in the field of education is enormous and has good goals for the nation's children. The purpose of change in the current era of globalization includes various innovations and teacher creations in making learning fun and learning meaningful for their students. A fun and meaningful learning process is very good for today's students. With a healthy learning process can improve student learning achievement. One focus in learning is the process and achievement in learning. If one of these two things is not there, then the learning can be said to be unsuccessful. The success of learning is very dependent on the ability of students to accept the subject matter. If a student's ability to accept material quickly, then the student will easily understand the next material. And vice versa if students find it difficult to accept material, then these students will also find it difficult to accept further material. For this reason, teachers need to innovate and be creative in delivering learning material. This innovation can be done by using good and appropriate learning media for students. According to Hamalik (in Arsyad, 2015: 15) the use of learning media in the learning process can generate new desires and interests, arousing motivation and stimulating learning activities and even having a psychological influence on students which also influences their learning outcomes. The use of learning media is very important in learning activities in elementary schools, because children at an elementary age are still in the concrete operational stage, namely at the age of 7-11 years which is characterized by the ability to think concretely and deeply, as well as classify and control their perceptions. When viewed from

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psychological studies, it states that children learn concrete things more easily than abstract ones. As the opinion according to Edgar Dale (in Daryanto, 2016: 13) makes the concrete-abstract level starting from students participating in real experiences, then moving on to students as observers of real activities,

Lots of schools have not used learning media in the process of teaching and learning activities, especially concrete media. There are still many teachers who still use the lecture method and have not innovated in giving material to their students. In fact, there are still many teachers who think that students can understand the material by just sticking to books without being supported by media and in-depth explanations from the teacher regarding learning material. In addition to the teacher's factors, there are also factors that cause low student achievement, namely factors from the parents of students, the background of the students themselves, and inadequate school facilities and infrastructure are also the causes of low student achievement. By using strategies in the learning process such as innovating learning with methods, models,

From the results of observations and observations made in class II SD Negeri Karangmulyo, there is a visible problem, namely the lack of innovation and creation by the teacher in delivering material which causes a lack of interest in student learning so that it affects the learning achievement of class II students at SD Negeri Karangmulyo in thematic subjects. Most of the total number of students have not been able to reach the specified completeness score or KKM, this can be seen from the daily tests and exams that have been passed by students. There were only 3 students who scored above the KKM out of a total of 19 students, in the first cycle it increased to 8 students and in the second cycle it increased even more to 13 students. This makes concrete media suitable to be applied to class II

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students at SD Negeri Karangmulyo.

3. Method

3.1. Participants and context

This research was conducted in class II at SD Negeri Karangmulyo which is located at Karang KG II/531, Prenggan, Kotagede District, Yogyakarta City. This research was conducted in the even semester of the 2022/2023 academic year. This research is a collaborative classroom action research (PTKK). This classroom action research is a strategy to overcome problems that arise when the teaching and learning process takes place. Suharsimi Arikunto, et al (2007: 17) states that in collaborative research, the party carrying out the action is the teacher himself, while those who are asked to make observations of the ongoing process of action are researchers, not teachers who are taking action. According to Kemmis & Taggart (in Sa'dun Akbar, 2008: 28) which includes: planning (planning), acting (action), observing (observation), reflecting (reflection). This research was carried out in several cycles in which each cycle consisted of planning, action, observation and reflection. This research was conducted to improve learning achievement by using concrete objects in class II at SD Negeri Karangmulyo.

3.2. Material

The research procedure was carried out in two cycles where each cycle consisted of several stages, including: action planning, action implementation, observation and analysis or reflection. As for the data collection technique, namely by using tests, observation and documentation. The test technique according to Arikunto (in Elis Ratnawulan and Rusdiana, 2016: 23) says that the test is an information gathering tool when compared to other tools

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because the test is official. In terms of the usefulness of the test to measure students' abilities, in general it can be divided into three types of tests, namely formative tests, diagnostic tests, and summative tests. The next data collection technique is observation, an observation technique according to Suharsimi Arikunto, et al (2007: 127) is an observation activity (data collection) to photograph how far the effect of the action has reached the target. The effect of an intervention (action) continues to be monitored reflectively. For the last data collection technique is documentation, documentation in this case is an activity of collecting data from several sources including: teachers, students, ongoing teaching and learning processes, and lists of grades II students at SDN Karangmulyo.

3.3. Data collection and analysis

The data analysis technique used is quantitative data in the form of mastery of learning material on theme 7 (togetherness on the playground) which can be analyzed using analytical techniques by determining the average or mean. The mean formula according to Burhan Nurgiyantoro (2010: 219) is as follows:

$$Mean = \frac{\Sigma x}{N}$$

Information:

Mean = average value

Σx = sum of all values

N = number of students

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According to Zainal Aqib, et al (2009: 41), to find the percentage of learning completeness, the following formula is used:

$$p = \frac{\sum \text{siswa yang tuntas belajar}}{\sum \text{siswa}} x100\%$$

Information:

P = percentage of learning completeness

$\sum$ = total number of students

4. Results and Discussion

This research is PTKK research or collaborative classroom action research which consists of two cycles in which each cycle contains several research procedures, namely: the planning stage (planning), the implementation of the action (acting), observation (observation), reflection (relecting). This study uses the Problem based learning (PBL) model on theme 7, sub-theme 4, 4th learning (Togetherness in tourist attractions) with a focus on mathematics about fractions. In the pre-cycle activities, the researcher found a problem with low student achievement, then the researcher took action on this problem by conducting collaborative classroom action research. In cycle I the researchers have not used concrete objects so that the results of the research are not maximized

Table 1. Comparison of complete learning achievement using concrete objects in class II students

NO	ACTION	AVERAGE	COMPLETE PERCENTAGE (%)
1.	Pre Cycle	37,1	17%

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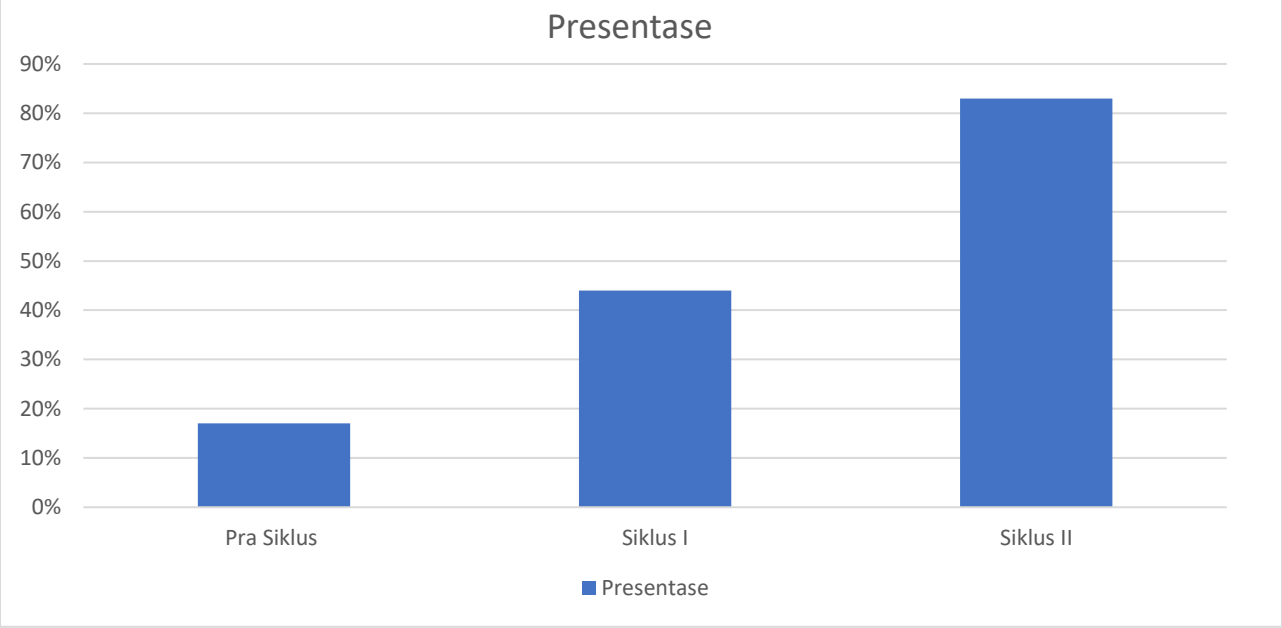
2.	Cycle I	54,1	44%
3.	Cycle II	83	83%

From the results of the research that has been done, it shows an increase in learning achievement using concrete objects in second grade students, this can be seen when the pre-cycle is carried out to get a result of 17% with an average value of 37.1, then when the first cycle is carried out it shows an increase of 44% with an average value of 54.1, then from the reflection of cycle I another improvement is made in cycle II showing an increase of 83% with an average value of 83.

Graph 1. Percentage of Mastery of Learning Achievement by Using Concrete Objects in class II students



From the graph above, there is an increase from the pre-cycle of 17% to 44% in cycle I, because it has not met the achievement indicator of 75%, then reflection is carried out

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and continued in cycle II then in cycle II it increases to 83%. It can be seen that there was an increase from the pre-cycle then during the research cycle I to the research cycle II.

5. Conclusion

From the results of the research that has been done, it can be concluded that before the action was taken, student achievement was still low, as evidenced by only 3 students whose learning outcomes met the KKM, namely 75, the average value was 37.1 with a percentage of 17%. After the action in cycle I the students' abilities increased, this was evidenced by 8 students who had fulfilled the KKM, an average score of 54.1 with a percentage of 44% and reflection was carried out in cycle II because in cycle I the results did not meet the reliability indicator with a percentage of 75%, then improvements were made using concrete objects then experienced an increase in the average value of 83 with a completeness percentage of 83%. Based on the results of the research and discussion, it can be concluded that learning achievement increased by using concrete objects in class II students at SD Negeri Karangmulyo. The increase in the average score and the percentage of learning completeness at each meeting shows that student achievement has increased.

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The author realizes that in this writing there are still many shortcomings, so the author humbly hopes that readers will provide constructive suggestions and input so that later it can be used and put to good use by those in need.

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