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Improving The Ability To Count through Multiplication Drill Method

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Abstract

NURPIANSYAH, 20198600046, Efforts to Improve Multiplication Counting Skills Through the Drill Method Using a Multiplication Smart Board, Thesis: Elementary School Teacher Education Study Program, STKIP Kusuma Negara Jakarta, 2023. The aim of this research is to improve students' multiplication counting skills in multiplication number material with results 2 numbers through the drill method using a multiplication smart board for class II A students in the even semester of the 2022/2023 academic year. This research method is classroom action research which follows the Kemmis and Taggart model. The research period was 2 months, namely April 2023 to May 2023 with research subjects of 31 students, data was collected through tests, interviews, observation and documentation. The results of the research show that there has been an increase in the ability to calculate multiplication in class II A students. This is proven by the average test results in each cycle increasing, namely in the pre-cycle = 71.12; cycle 1 = 80.64; cycle 2 = 85.64 and the results of the interviews concluded that the ability to calculate multiplication through the drill method using multiplication smart board media can improve students' understanding of multiplication material as a form of repeated addition. This research concludes that learning multiplication using the drill method using multiplication smart board media can improve the multiplication calculation skills of class II A students.

Keywords: multiplication counting ability, Drill method, multiplication Smart Board.

1 INTRODUCTION

Education has an important role in children's future. Therefore, education really needs to be developed from various sciences because quality education can make a nation intelligent. Education is also a process that makes people actively develop all the potential that exists within them so that they have knowledge, skills, abilities and good attitudes. One of the abilities that children must have is the ability to count which is included in mathematics learning material.

Learning mathematics is learning the concepts and structures contained in the materials being studied, as well as looking for relationships between these concepts and structures. Mathematics is an important subject to learn and understand because almost every activity carried out by humans cannot be separated from basic mathematical concepts. In everyday life, various problems are often encountered and each problem requires a solution. The problems that arise are often related to lessons at school, especially those related to calculations and mathematics. It can be said that all life activities require the ability to calculate. We often experience counting activities in everyday life without realizing it.

In mathematics learning, teachers should know this so that they can prepare the conditions for their students to be able to master the concepts to be studied. Starting from the simple to the more complex. However, mathematics is considered a difficult subject and is less popular with both students and teachers because the methods used are not appropriate to the material presented so that numeracy skills and learning outcomes also

decrease. Students who do not have good numeracy skills will decrease their mathematics learning outcomes.

We can see students' numeracy abilities from students' mathematics lesson grades. One of the skills developed by education to mature students is the ability to count. Numeracy ability is the ability to operate numbers in the form of numbers related to addition, subtraction, multiplication and division. Students can develop numeracy skills through studying mathematics. The ability to calculate is part of mathematics which can develop students' cognitive abilities and improve their learning outcomes.

Mathematics learning outcomes are the results achieved by students after following the learning process within a certain period of time. These results will be shown through the scores obtained from the test results given by the teacher. Learning outcomes are one indicator of the learning process. Learning outcomes are changes in behavior obtained by students after experiencing learning activities Catharina Tri Anni (2004; 4). Whether a person is successful or not in learning is caused by several factors that influence the achievement of learning outcomes. According to Slameto (2003; 3), the factors that influence learning are:

a. Internal factors consist of:
1) Physical factors
2) Psychological factors
b. External factors consist of:
1) Family factors
2) School factors
3) Community factors.

In this research, the factors that influence the numeracy skills of class II A students at Pinang Ranti Elementary School are factors that exist within the school. These factors can be resolved using various methods such as the lecture method, question and answer method, drill method, demonstration method, discovery method, discussion method. , role playing method, and PLBJ method. In this study, researchers used the drill method as a way to solve problems in multiplication calculation skills.

The drill method is a method that involves students directly by familiarizing students with repeated drills or continuous practice. In learning mathematics itself, the drill or practice method is very necessary, especially considering that the mathematics subject of multiplication material itself is not fun for children because they have quite difficulty calculating multiplication which has various ways of calculating it.

According to Dewa Putu Yudhi Ardiana (2021), applying the drill method or training method is one of the conventional learning methods that can still be used today. Exercises using the drill method include spelling, writing and memorizing activities. Learning techniques that are carried out repeatedly aim to enable the brain to remember automatically, form habits and increase dexterity. Therefore, mastering skills through practice is an important point in the teaching and learning process using the drill or practice method.

This method is suitable for use in Mathematics lessons, for example how students can perform calculations to solve Mathematics problems. The drill method aims to educate, teach and train participants to have attitudes, behavior, knowledge and skills that can be used in current objective situations and conditions.

Based on the results of interviews and observations conducted in class II A at SDN Pinang Ranti 01 Jakarta, in terms of their multiplication calculation skills, students still had difficulty understanding multiplication as a form of repeated addition, this was seen when the researchers carried out initial observations. In class the teacher only delivers material using conventional methods, the teacher only explains the material in the book without involving students during the learning process. In dealing with this problem, researchers used the drill method in the learning process so that students continue to be active in the learning process in an effort to improve the numeracy skills of students in class II A at SDN Pinang Ranti 01 Jakarta. To achieve maximum learning objectives, researchers designed learning that can improve multiplication calculation skills through the drill method

2 RESEARCH METHODS

Researchers use classroom action research using the Kemmis & Teggart research model. Researchers use this PTK design model because it has a fairly easy design. Apart from that, the procedure consists of four stages, namely starting with planning, implementation, observation and reflection for each cycle. Elisabet, E., Relmasira, S. C., & Hardini, A. T. A. (2019).

3 RESULT AND DISCUSSION

The data presented is data on the ability to calculate multiplication through the drill method using multiplication smart board media. In this chapter we will present data on students' numeracy skills in pre-cycle, cycle 1 and cycle 2.

3.1 Sub Results

The findings of this research are in the form of a presentation of the results that researchers obtained through tests, observations, interviews, field notes and documentation. Researchers conducted a test by giving questions to students to determine their ability to calculate multiplication in class 2 A students at SDN 01 Pinang Ranti Pagi. The data analyzed is in accordance with the research objectives and problem formulation in this research.

3.1.1 Data on students' numeracy ability scores in the pre-cycle

Based on the evaluation test carried out by the teacher in the pre-cycle on 31 students, the following data was obtained.

Tabel 1
Data on students' numeracy ability scores in the pre-cycle

Number of Values	2205
Average Value	71.12
The highest score	90
Lowest Value	40
% Completeness	48.38%
% Incomplete	51.62%

From the data above, the total number of students who completed the pre-cycle was 48.38%, but still did not meet the expected completion, namely 80% of the total number of students who took the test.

3.1.2 Source of test data for Class II A students at Pinang Ranti State Elementary School 01 AM

rades on a scale of 0 – 100 from the questions and essays.

3.1.3 Action description

In addition to conducting interviews with class 2 A students, the researcher also carried out planning based on the research problem. An action plan has been formulated that will be implemented to solve the research problem. The lesson material discussed in this cycle is the ability to calculate multiplication. The implementation of the action is carried out in the first hour. The material that will be discussed is multiplication as a form of addition using the drill method using a card multiplication smart board. The following describes the real conditions experienced during the teaching and learning process. At the beginning of the activity the teacher opened the lesson by saying hello. Then the teacher guides the students to pray together before the lesson starts, the teacher checks the students'

attendance and prepares learning tools, once everyone is ready the teacher does an apperception. Next, the teacher provides the subject matter that will be discussed along with the learning objectives to be achieved. Students are asked to work on example questions with the help of multiplication smart board media. To determine students' ability to calculate multiplication, the teacher provides evaluation questions to work on.
Reflection Reflection is the final result or final conclusion that will be reached by students in processing the material that has been presented by the teacher.

3.2 Discussion of Research Findings

The success of a multiplication learning process through the drill method using multiplication smart board media for 2 cycles can be seen from the pre-cycle, cycle I and cycle II data of students before and after the learning process is carried out. First, pre-cycle research is carried out. The results of each action. Students' abilities in the teaching and learning process through the drill method using multiplication smart boards with the aspect that students can understand multiplication as a form of repeated addition, and solve multiplication problems in the form of stories.

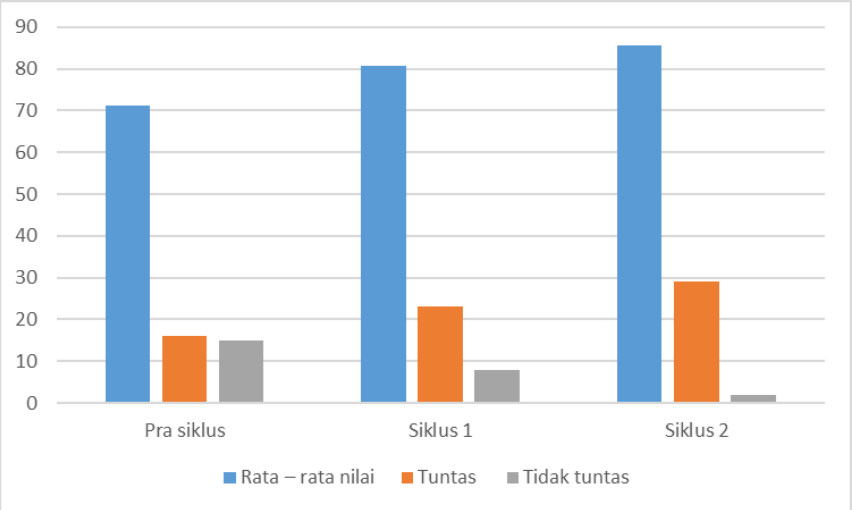
3.2 Table

Table 2. Data recapitulation

Data	Pre cycle	Cycle 1	Cycle 2
Average value	71.12	80.64	85.64
Complete	16	23	29

Tabel 2 shows that the values in the pre-cycle, cycle 1, cycle 2 continue to increase in a better direction

3.3 Picture



Picture 1. Recapitulation of pre-cycle data, cycle 1, cycle 2

4 CONCLUSION

Based on the results of the actions carried out during the second cycle and the data analysis and discussions carried out, several conclusions were drawn as follows: the use of the drill method and multiplication smart board media can improve the multiplication calculation

skills of class II A students at SDN 01 Pinang Ranti Jakarta in the 2022 academic year /2023. This can be seen from the data in pre-cycle, cycle 1, cycle 2, students' scores after the evaluation continue to increase, and the percentage of students' completion continues to increase and has reached the research success criteria of 80%, namely 93.45%.

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