

THE ABILITY TO UNDERSTAND STUDENTS MATHEMATICAL CONCEPTS USING THE QUICK COUNT METHOD IN ELEMENTARY SCHOOL

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ABSTRACT

The ability of elementary school students to understand concepts in multiplication operations is very low. When faced with multiplication operation material, students find it difficult to do it. This will result in low students' mathematical abilities. The purpose of this study was to determine the effect of the quick count method in improving the ability to understand mathematical concepts of elementary school students. The type of research used is quasi-experimental by applying treatment to the experimental class which is carried out in Cluster V, Koto Tangah sub-district. The results of data analysis obtained that the posttest average of the experimental class was 77 and the control class was 71. The results of the analysis of hypothesis testing show that the significance value is $0.025 < 0.05$, which means that the quick count method has an influence on the ability to understand mathematical concepts in learning in the experimental class. So it can be concluded that the quick count method can improve students' ability to understand mathematical concepts in the multiplication operation material in elementary school.

Keywords: Understand Concepts, Quick Count, Mathematic, Elementary School

A. INTRODUCTION

Mathematics is a science that cannot be separated from our daily life. We will use mathematics in solving the problems we face (Atiaturrahmaniah, 2011). Students consider mathematics a difficult science to learn. Numbers are part of mathematical material, including multiplication material. In this material, students find it difficult to solve multiplication problems. The results of observations regarding students' understanding of the concept of multiplication of numbers are still very low. In line with Tety's opinion, one of the students' difficulties in solving multiplication problems (Rahayu, 2017). This is because students are not yet proficient in the material count.

The difficulty of learning mathematics is that students have not succeeded in mastering concepts or problem solving algorithms and have not been able to

remember concepts or principles.(Heriyati, 2019). Numerical ability affects students' numeracy ability. Mathematical abilities include reasoning and mathematical understanding (Suriyah, 2018). The abilities that students need to have include the ability to understand (Erdawati & Rahman, 2021). As for students' mathematical abilities regarding arithmetic operations, it can be improved by the counting method given by the teacher. To improve that ability, the teacher must have a counting method in order to create a pleasant learning atmosphere (Heriyati & Munasiah, 2022). The freedom to experiment will make students happy to learn mathematics.

Students' numeracy skills can be improved by applying the quick count method, this is stated based on the research of Dilan and Dedy Setyawan (Yeni, 2015). Then other research suggests that various fast counts can improve students' understanding of multiplication operations (Erdawati & Rahman, 2021). By increasing the students' arithmetic operations ability, it will increase students' mathematical abilities. This happens because this quick count method will provide a sense of ease and speed. This will make it easier for students to solve problems related to arithmetic operations. With the quick count method, students are expected to be skilled in counting. Thus reducing errors in doing arithmetic operations (Nasution & Surya, 2016). The purpose of this study is to describe students' mathematical understanding by applying the Quick Count method.

B. METHODOLOGY

The type of research applied is experimental. The quick count method was treated in the experimental class (Sumarmo, 2012). The data consists of two variables, (1) the quick count method is the independent variable, (2) the understanding of the dependent variable. The research design is described as follows.

Tabel 1. Table Research Design

Activity	Eksperimen	Kontrol
Treatmen	X	0
Test	T	T

X: The treatment uses the quick count method

O: The treatment uses conventional learning

T: The mathematical ability testan

To see the students' mathematical abilities, this study used a quantitative approach (Waskitoningtyas, 2016). The research was carried out in elementary schools in Cluster V, Koto Tengah District, Padang City within a period of 1 year. This data uses homogeneity and normality tests as prerequisite tests. Primary and secondary data are data used by researchers. (Itqan, 2018).

The data was obtained through observations and tests carried out on the learning carried out by the chairperson and research members (Gunarti, 2017). The test is in the form of questions related to multiplication operations, while observations are about learning activities.

C. RESULT AND DISCUSSION

The results of the research at the elementary school in Cluster V, Koto Tengah District, Padang City, obtained data that analyzed how students' mathematical understanding skills were using the quick count method.

1. Assessment of Mathematical Understanding

The results of students' mathematical understanding tests for each class are described in the following table:

Tabel 2. Assessment of Mathematical Understanding

Kelas	Experiment	Control
N	25	30
Xmaks	90	90
xmin	63	50
<u>2</u>	77	71

Based on the table, it can be seen that the mathematical understanding of students who learn to use the quick count method in the experimental class has a better value than learning in the control class. The average experimental class is 77 and the control class is 71.

2. The Average Test Results of Each Indicator of Mathematical Understanding

There are two indicators that are used to see students' mathematical understanding using the quick count method. Indicator 1 is resenting mathematical concepts in various forms of representation and indicator 2 is Selecting and utilizing certain procedures.

The test results of each indicator are shown in the following figure:

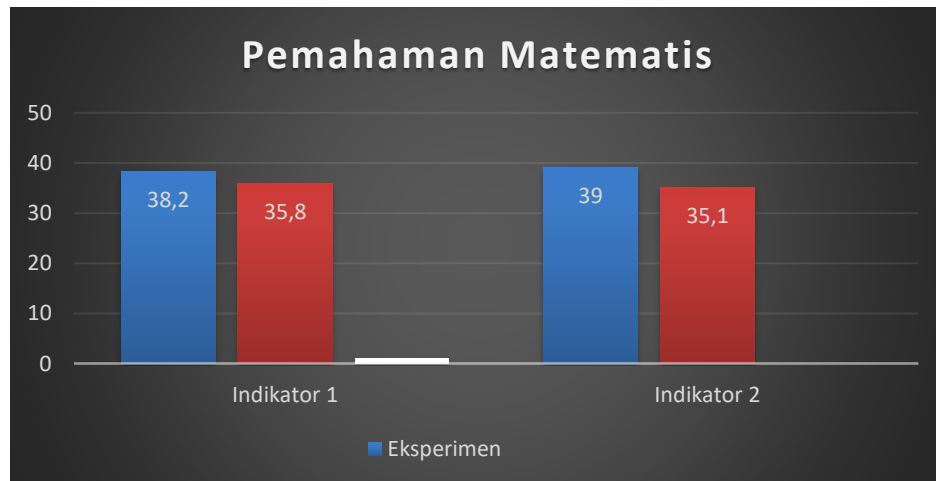


Figure 1. Bar Chart of Each Indicator

Experimental class students have presented the concept of multiplication in the form of the quick count method. Students have been able to present the process of solving multiplication problems using quick count, namely the line method. With this line method, students prefer and think that multiplication is not so difficult anymore.

Students are also able to take advantage of the multiplication quick count method by using the line method to complete multiplication operations. Students who have been having problems with looking for multiplication in descending order will be helped by this line method. The line method makes students happy to learn math while playing line count, which will get the result of multiplying numbers. Students' test results regarding multiplication also increased, this can be seen in the graph. Students in the experimental class had higher mathematical understanding than the control class taught conventionally.

3. Hypothesis Testing Students' Mathematical Comprehension

Tabel 3. Hypothesis Testing Students' Mathematical Comprehension

Class	Average	T arithmetic	Sig.
Control Class	71	-2.395	0.025
Class	77		

Based on the hypothesis test, the significance value of mathematical understanding is $0.025 < 0.05$, which means that H_1 accepted. The results of this hypothesis explain that the quick count method has an effect on mathematical understanding of multiplication material in Elementary School.

D. CONCLUSION

Based on the results of the research obtained as follows. First, the quick count method can make it easier for students to solve multiplication problems and increase students' enthusiasm for learning. Second, the quick count method can improve students' understanding by looking at the results of students' mathematical understanding. The average value of students' mathematical understanding with the quick count method in the experimental class was 77 while the control class was 71. Third, the result of the

hypothesis that the significance value of students' mathematical understanding was 0.025, meaning that H1 was accepted, which explains that the quick count method has an influence on students' mathematical understanding. This resulted in students' understanding ability using the quick count method better than conventional learning.

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