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THE EFFECT OF MAKE A MATCH LEARNING MODEL ON MIXED FRACTION LEARNING RESULTS IN CLASS IV STUDENTS OF SDN 34 KOTA SELATAN THE CITY OF GORONTALO

MARTIANTY NALOLE
Gorontalo State University
martianty@gmail.com

SONYA NAARIA MOOTALU
Gorontalo State University

ABSTRACT
Mathematics is a science that is structured and organized and has order, regularity, linkages, and relationships between the next material mathematics in primary school should be a top priority, this is caused because students do not have basic knowledge. One of the materials taught in elementary school mathematics is mixed fractions. The use of the Make A Match model can train students to work together. The research objective was to determine the effect of the Make A Match learning model on mixed fraction learning outcomes. Uses Quasi Experimental Design (quasi-experimental) Non equivalent Control Group . The sample used in this study were all fourth grade students of SDN 34 Kota Selatan Kota Gorontalo. The results showed $t_{count} = 2.73$ while $t_{table} = 2.024$. This means $t_{count} > t_{table}$. This means that H_0 is rejected and receive H_a concluded that there are significant learning model make a match on learning outcomes mixture fractions in grade IV SDN 34 South City Gorontalo.

KEYWORDS: Influence, Make A Match, Learning Outcomes, Mixed Fractions.

INTRODUCTION
Mathematics is a science that is structured and organized and has order, regularity, linkages, and relationships between the next material mathematics in primary school should be a top priority, this is caused because students do not have basic knowledge.

With regard to learning mathematics in schools, learning mathematics in elementary schools needs to be a top priority, this is because students do not have basic knowledge in learning mathematics in elementary schools (SD) will have difficulty learning mathematics in secondary schools.

Taking into account the need for mathematics learning in elementary schools, the problem is that there are still many elementary students who are not fond of learning mathematics. Many think that learning mathematics requires a hard way of learning, uses high-thinking ways, needs to concentrate, is diligent, thorough, and so on. This situation makes many students afraid of learning mathematics. Mathematics is considered a boring subject so that many students are less active in learning mathematics. As a result, many students who study mathematics in elementary school get the lowest scores.

Thus, in mathematics learning in SD as described above, it becomes a challenge for mathematics teaching teachers in SD . However, as a teacher, he must be responsible for the tasks he is assigned to. So that the teacher must strive so that students can learn optimally in order to get good grades. Especially in mixed fraction learning in grade IV SDN 34 South City , Gorontalo City . In the learning process, students do not get the same opportunity to be involved in teaching and learning activities in class. As a result, low-ability students just watch and smart students dominate learning activities.

This is supported by the students' report card scores, especially in mixed fraction material, there are still many students who have an average score below that of the KKM and the scores of assignments that are often given by teachers to students are still many who get low scores, as well as student test results. in mathematics subjects are classified as low, so that teachers still make remedial for students who get low scores.

Problems that teachers are using one of the alternative learning models that can be used in a mixture of fractions especially fractions is to use a learning model make a match. The use of this learning model is useful for helping students in learning in a fun teaching and learning process. It is fun here that students are invited

to learn while playing through the make a match learning model which uses pairs of cards consisting of answer cards and question cards. In the learning process it is expected to be able to improve student learning outcomes, especially in mixed fraction material and the learning process to be fun.

STUDY THEORY

If an object is divided into two equal parts, then one of the two parts is taken, the part that is taken is one half or half of the total object, the number one half is written using symbols or as a statement of the symbol of the fraction number . Thus, fractions can be interpreted as part of a whole. This is in accordance with the view (Gunanto and adhalia 2016: 02) that fractions are numbers expressed in the form, a and b are called integers, $b \neq 0$, a is called the numerator, and b is called the denominator.

Judging from the writing system, fraction numbers can be divided into two types, namely: ordinary fractions and mixed fractions. The definition of a fraction described above is an example of an ordinary fraction, which is a fraction written in the form. In addition to the usual fraction, there is a fraction called a decimal fraction, which is a fraction written using a place value system. The word decimal has the meaning of a ten-ten grouping, which consists of tithes, hundredths, thousandths, and so on. In writing it uses a comma as a delimiter between integers and fractional numbers. As stated in the previous explanation, an ordinary fraction is a fraction expressed in the form , a is called the numerator, while b is called the denominator.

The cooperative learning type make a match is an alternative learning model that can be applied in the learning process in elementary schools, especially in mixed fraction material. This lesson was developed by Lorna Curran. The make a macth learning model is an active learning model to explore or practice the material that has been studied, and students receive one card, the card contains questions, it can contain answers then they look for a suitable partner according to the card they are holding (Rusman, 2017: 314) .

The make a match learning model in which students accumulate student cooperation in answering questions by matching the cards in their hands, the learning process is more interesting and it seems that most students are more enthusiastic about the learning process, and student activeness is evident when students look for their card pairs respectively (Kurniasih and Sani, 2013: 55-56).

RESEARCH METHODS

In this study, researchers used a Quasi Experimental Design (quasi-experimental) research method. Quasi experimental design is a type of research that has a control class but cannot fully function to control external variables that affect the implementation of experiments (Sugiyono, 2016: 114). The research design used a Quasi experimental Nonequivalent Control Group. With the aim to determine the effect of the make a match learning model on the learning outcomes of class IV mixed fractions at SDN No. 34 Southern Cities Gorontalo City. In experimental research, there are two variables that need to be considered, namely the make a match learning model as the X variable and the mixed fraction learning outcomes as the Y variable. The sampling technique used by researchers is saturated sampling, namely the total number of grade IV students where all members are sampled. Data collection techniques in this study used observation, tests and documentation.

The formula used in testing the validity of the instrument is the biserial point correlation. The reliability of an instrument no matter how many times the data is taken will remain the same. Reliability also shows the depth of a test. To determine the inconsistency or consistency of the test used as an instrument using the Kunder and Richardson 20th formula (**KR-20)** . The normality test is carried out to determine whether the data to be analyzed is normally distributed or not. There be some a technique that can be used in data normality test one of them is to use the test Liliefors . Because the researcher has a control class and an experimental class, the researcher conducts the homogeneity test, the homogeneity test aims to determine which group comes from a homogeneous group or not. The homogeneity test is carried out to determine whether the control group and the experimental group are used as research objects. In this study, the homogeneity test was carried out using the variance equality test (F test).

Testing the research hypothesis using the t test. The test criteria are as follows:

1) The hypothesis is converted into pairs of statistical hypotheses as follows:

$H_a : \mu_1 \neq \mu_2$: There is a significant influence between the learning outcomes of students who use the make a match learning model and those who do not use the make a match class IV learning model at SDN No. 34 Southern Cities Gorontalo City .

$H_0 : \mu_1 = \mu_2$: There is no significant effect between the learning outcomes of students who use the make a match learning model and those who do not use the make a match learning model for class IV at SDN No. 34 Southern Cities Gorontalo City .

Hypothesis testing

Hypothesis testing in this study uses independent t to determine the difference in the average Post Test between the control class and the experimental class with the following formula :

$$t_{hitung} = \frac{\bar{x}_1 - \bar{x}_2}{s_{gabungan}\sqrt{\frac{n_1 + n_2}{n_1 . n_2}}}$$

$$s_{gabungan} = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}}$$

(Lesteri dan Yudhanegara, 2015 : 282)

Information

$\bar{x}_1$ = The average value of student learning outcomes in the experimental group using the Make A Match learning model

$\bar{x}_2$ = The average value of the control group student learning outcomes using conventional learning models

s_1^2 = the variance of student learning outcomes in the experimental group using the Make A Match learning model

s_2^2 = variance of control group student learning outcomes using conventional learning models

n_1 = the number of students in the experimental group

n_2 = the number of students in the control group

RESEARCH RESULTS AND DISCUSSION

Description of Research Results

Based on the analysis of the data , the research results referred to in this discussion include instrument testing, data normality test , data homogenity test, and hypothesis testing . Based on the results obtained, it is known that the value of r = 0.88 . This shows that the level of test reliability is very high with a very fixed / very good interpretation . The results of the validity and reliability tests will be used as a measuring tool to be studied and can describe the results of the research conducted in class IV SDN No. 34 Southern Cities Gorontalo City.

Description of Pretest Results

In the pre-test or pre- test, the assessment of student learning outcomes on mixed fraction material before using the Make A Match learning model , first the researcher conducted by distributing questions to class IV B (control class) and IV A (experimental class) SDN No. 34 Kota Selatan Kota Gorontalo as a research location to determine the students' initial abilities regarding mixed fraction material, but before distributing questions, the researcher reminded the students of fractions, especially mixed fractions, to students in the control class and experimental class before the researcher gave the initial test to the two classes. pretest score

data for the control group, it is known that the average score of students is 30.42 with a standard deviation of 12.83 and for the experimental class the average score of students is 32.50 with a standard deviation of 15.26.

Description Results Posttest

In the Post Test or final test, before giving the final test to students, the teacher first makes a learning implementation plan (RPP) where for the control class the teacher only uses a conventional learning model on fraction material, especially mixed fractions in class IV SDN 34 Kota Selatan Kota Gorontalo , while for the experimental class the teacher uses the Make A Match learning model on mixed fraction material at this stage the teacher can find out whether there is an effect of the make a match learning model before using the model and after using the model whether there is an effect or not. After the teacher teaches for the control class and the experimental class, the teacher gives the final test or Post Test. Posttest score data for the control group, it is known that the average score of students is 49.58 with a standard deviation of 19.37 and for the experimental class the average score of students is 66.67 with a standard deviation of 20.08.

Results of data normality test Pre Test in class control obtained $L_{count} = 0.1857$ and $L_{tables} = 0.1900$. From the calculation results, it is found that L_{count} is smaller than L_{table} ($L_{count} = 0.1857 < L_{table} = 0.1900$). While the Pre Test data in the experimental class obtained $L_{count} = 0.1\ 377$ and $L_{table} = 0.1900$. From the calculation results, it is found that L_{count} is smaller than L_{table} ($L_{count} = 0.1377 < L_{table} = 0.1900$). So it is concluded that the pre-test research data from the control class and the experimental class came from a normally distributed population.

The results of the Post Test data normality test in the control class obtained $L_{count} = 0.1\ 264$ and $L_{table} = 0.1900$. From the calculation results, it is found that L_{count} is smaller than L_{table} ($L_{count} = 0.1\ 264 < L_{table} = 0.1900$). While the Pre Test data in the experimental class obtained $L_{count} = 0$, 1578 and $L_{table} = 0.1900$. From the calculation results, it is found that L_{count} is smaller than L_{table} ($L_{count} = 0.1578 < L_{table} = 0.1900$). So it can be concluded that the post-test research data from the control class and the experimental class came from a normally distributed population.

The hypothesis to be tested is based on the same, namely and . But the variants of the two samples are homogeneous or not, it is necessary to test F. With a price less than . Thus it is stated that the variants of the two control and experimental groups on the data from the Pre-Test and Post- T- Test results are homogeneous. Hypothesis testing in this study used an independent t test with t test results on the pre-test result data showing t count of 0.47 and t table = 2.024 for a significant level and dk turns out to be a price greater than the price (0.47 <2.024), so it is accepted and rejected. for the pre-test data results before being given treatment. This means that there is no effect on student learning outcomes between groups on the pre-test data.

Hypothesis testing in this study with independent t test with test results on the Post Test data shows a price of 2.73 and a price of 2.024 for a significant level and dk turns out to be greater than the price (2.73> 2.024), so it is rejected and accepted. This means that there are student learning outcomes between the experimental group using the make a match learning model and the control group using the conventional learning model in class IV SDN 34 Kota Selatan Kota Gorontalo.

CONCLUSION

Based on the results of the research and discussion, it was concluded that there was an effect of the Make A Match learning model on student learning outcomes on fraction material, especially mixed fractions. From the conclusions that have been described, what is used as a suggestion is the make a match learning model is the need for students to understand the concept of the pec ehan material, especially mixed fractions, the teacher should use the make a match learning model in mixed fraction material and it is necessary to train and guide students, and the make a match learning model can be used as a learning model in mathematics, especially mixed fraction material so that it can improve student learning outcomes and make the experience for researchers using the make a match learning model and can be used as reference material for further research and can be applied to other subjects are not only mathematics.

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