THE EFFECTIVENESS OF USING SCRAMBLE LEARNING MODEL TOWARD STUDENTS CREATIVE THINKING ABILITY FOR CLASS VII

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ABSTRACT

The ability of students' creative thinking in math is still less than optimal. This study aims to determine the effectiveness of the mathematics learning model at State Junior High School (SMP Negeri) 3 Kasihan Bantul by comparing its effectiveness and the learning model used in schools. The population used is the entire class VII at SMP Negeri 3 Kasihan of 122 students. The sampling technique used is the random sampling technique. It selected class VII B as the experimental class and class VII D as the control class. The data collecting technique used is the test method. The data collection instrument in the form of a test. That is the pretest and posttest. The validity test of the instrument used is constructed validity. The instrument reliability test used is alpha Cronbach. The data analysis technique used is a prerequisite test using the normality test with a chi-square formula and homogeneity test using the bartlett formula and the hypothesis test using the t-test. Based on the result of the research, it indicates that: (1) t-test result of two parties obtained $t_{count} > t_{table}$, $t_{count} = 3,837$ and $t_{table} = 2,301$ or $t_{count} > t_{table}$, $t_{count} = 3,837$ and $t_{table} = 2,301$ with 5 % of significant level and the freedom degree is 58 which means that H_o is rejected and H_1 is accepted, so there is a difference of creative thinking ability of students between the class whose learning is using scramble learning model and the class whose learning is using the scientific approach for class VII students at SMP Negeri 3 Kasihan in the academic year 2017/2018. (2) t-test results of one party obtained $t_{count} > t_{table}$, $t_{count} = 3,837$ and $t_{table} = 2,002$ with 5% of significant level and the freedom degree is 58 which means that H_o is rejected and H_1 is accepted, so the learning mathematics using scramble is more effective than learning mathematics using a scientific approach toward the creative thinking ability for class VII Students in the second Semester at SMP Negeri 3 Kasihan Bantul in the academic year 2017/2018.'

Keywords: effectiveness, scramble, creative thinking ability.

INTRODUCTION

Education plays an important role in increasing the quality of human resources. Law Number 20 the Year 2003 concerning the National Education System Chapter 1 Article 1 Paragraph (1) states that Education is a conscious and planned effort to create an atmosphere of learning and learning process to actively develop their potential to have spiritual, religious, and controlling power. Self, personality, intelligence, noble character and skills needed by himself, society, nation, and country.

The learning process at school involves interaction between teacher and students and reciprocal communication. The teacher is responsible for organizing and creating an atmosphere that can encourage students to do various activities during the learning process in class. Simultaneously, students are responsible for learning and understanding the teacher's subject matter and completing the various learning tasks. Mathematics is one of the important lessons. This can be seen from the time of lesson hours for math subjects more than others.

Based on the interviews conducted by researchers in December 2017 with a grade VII mathematics teacher at SMP Negeri 3 Kasihan, it is known that students' creative thinking abilities in mathematics are still not optimal. This can be seen when the teacher gives a math problem or problem; only a few students can solve the problem correctly; even students do not work on the problem. Some of the students who did not work waited for answers from friends or waited for the teacher's explanations without finding their answers. Students who tend to be passive, not even paying attention when the

teacher explains the material, make students less optimal using their mathematical abilities, thinking creatively in solving a mathematical problem or problem.

Mathematical creative thinking can find and solve mathematical problems that include components: fluency, flexibility, elaboration, and authenticity (La Moma, 2015: 31). Fardah (in Siti Ariyanti, 2017: 4) states that in the research conducted, the indicators used to measure the ability to think creatively are emphasized on the smoothness, flexibility, authenticity, and detail.

To improve students' creative thinking abilities, learning in class can be done using different learning models to encourage learners to learn optimally. The learning model is the design of learning activities. The teaching and learning process's implementation can run well, is attractive, easy to understand, and fits in a logical sequence (Ngalimun: 2017: 39). A learning model is needed that can provide useful learning outcomes. Namely, using learning models makes students active during the learning process and can develop students' creative thinking abilities. One model that can be used is the scramble learning model. The scramble learning model is a group learning model. In this model, students routinely work in groups to help each other solve complex problems (Muhammad Ilyas and Fitriani A, 2014: 64). Through this method, it is hoped that learning will be more effective.

In the scramble learning model, students are asked to answer questions. They quickly guess the answers to already available questions but are still in random conditions (Miftahul Huda, 2013: 303). The aim is to motivate students to be more enthusiastic in learning and foster an attitude of cooperation with the team. This model consists of several stages that tend to involve students. Through learning with this model, it is expected that better learning outcomes and the ability to think creatively can produce something new in problem-solving solutions.

The purpose of this research is to find out (1) To find out the differences in the ability to think creatively between students who get learning using scramble learning models and students who get learning using a scientific approach to grade VII students of SMP Negeri 3 Pity Even Semester 2017 Academic Year 2017 / 2018. (2) To find out more effective learning between mathematics learning using scramble learning models and mathematics learning using a scientific approach to think creatively in grade VII students of SMP Negeri 3 Pity Semester Even Academic Year 2017/2018.

METHODS

This study uses an experimental research method with the research design is True Experimental Design. The form of the right experiment design used in this study is the pretest-posttest control group design. This research was conducted at SMP Negeri 3 Kasihan in the even semester. This study's population was all class VII students at SMP Negeri 3 Kasihan in the 2017/2018 school year. The sampling technique used in this study is simple random sampling. The selected class is class VII B as an experimental class and class VII D as a control class. The experimental class was treated with a scramble learning model, and learning in the control class is a scientific approach.

RESULTS AND DISCUSSION

The research results obtained in the study are in Table 1, Table 2, Table 3, Table 4, Table 5, and Table 6.

Table 1. Obtaining Pretest Value of Experiment Class and Control Class

Description	Pretest	
	Experimentation Class	**Control class**
Sample	30	30
Lowest Value	35	30
The highest score	75	75
Average	56,433	58,067

Table 2. Obtained Posttest Value of Experiment Class and Control Class

Description	Posttest	
	Experimentation Class	**Control class**
Sample	30	30
Lowest Value	65	50
The highest score	90	85
Average	79,833	69,9

Table 3. Normality Test Results for Pretest Value in Experiment Class and Control Class

Description	Posttest	
	Experimentation Class	**Control class**
Sample	30	30
χ^2_{count}	1,447	1,093
χ^2_{table}	11,070	11,070
Information	Normal	Normal

Table 4. Test Results Normality Post-Test Value Experiment Class and Control Class

Description	Posttest	
	Experimentation Class	Control class
Sample	30	30
χ^2_{count}	3,400	5,100
χ^2_{table}	11,070	11,070
Information	Normal	Normal

Table 5. Pre-Test Homogeneity Test Results

Description	**Posttest**	**Information**
χ^2_{count}	0,174	Homogeneous
χ^2_{table}	3,841	

Table 6. Post-Test Data Homogeneity Test Results

Description	**Posttest**	**Information**
χ^2_{count}	2,239	Homogeneous
χ^2_{table}	3,841	

Hypothesis testing of two parties with H_0 criteria is accepted if $t_{count} < t_{table}$ at the fundamental level α = 0.05 and df = $(n_1 + n_2 - 2)$ and for other prices t is rejected. From the t distribution list, the price of $t_{table} = 2,301$, while $t_{count} = 4,183$. This means that H_0 is rejected and H_1 is accepted. Thus, it can be concluded that there is a difference between the creative thinking abilities of Grade VII students of SMP Negeri 3 Kasihan using the scramble learning model and the scientific approach.

Hypothesis testing one party with the criteria H_0 is accepted if $t_{count} < t_{table}$ at the fundamental level α = 0.05 and df = $(n_1 + n_2 - 2)$. The other price t is rejected. From the list of t distributions, the price of $t_{table} = 2,002$ is obtained, while $t_{count} = 4,183$. This means that H_0 is rejected and H_1 is accepted. Thus, it can be concluded that the scramble learning model is more effective than the scientific approach to the creative thinking abilities of Grade VII students of SMP Negeri 3 Kasihan.

Both samples were given different treatments. For the experimental class, the scramble learning model is applied. In contrast, the control class is applied to learning with a scientific approach. The

scramble learning model is done in groups, meaning that in solving questions with the same answers, each group member may have a different way. Different solutions can be used as alternative answers. In this method, students are asked to answer questions. They quickly guess the answers to already available questions but are still in random conditions (Miftahul Huda, 2003: 304). So students will be trained to think fast, fluently, and flexibly with a set time limit.

Students will think initially and see problem-solving differently from usual through the questions given and discussed. Each group member who has a different answer must be accompanied by an exact reason or detailed answer so that other members can accept it. Based on the results obtained, the scramble learning model effectively improves the creative thinking ability of Grade VII students of SMP Negeri 3 Kasihan, Bantul Regency, the academic year 2017/2018.

CONCLUSION

Based on the results of research on the effectiveness of the use of scramble learning models for the creative thinking abilities of Grade VII students of SMP Negeri 3 Kasihan, Bantul Regency in the Academic Year of 2017/2018, the following conclusions are obtained:

1. There is a difference in students' creative thinking abilities between classes whose learning uses scramble learning models and classes that use scientific approaches to class VII students of SMP Negeri 3 Kasihan even semester of 2017/2018 Academic Year. Shown through the two-party t-test with $t_{count} > -t_{table}, 3,837 > -2,301$ or $t_{count} > t_{table}, 3,837 > 2,301$, then H_o is rejected and H_1 is accepted at a significant level of 5% and df = 58.

2. Mathematics learning using the scramble learning model is more effective than learning mathematics using a scientific approach to the creative thinking skills of Grade VII students of SMP Negeri 3 Kasihan even semester of the academic year 2017/2018. Shown through one-party t-test with $t_{count} = 3,837 > t_{table} = 2,002$, then H_o is rejected, and H_1 is accepted at a significant level of 5% and df = 58.

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