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THE EFFECT OF MAKE A MATCH AND SCRAMBLE LEARNING MODEL ON LEARNING OUTCOMES

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This research aims to determine the effect of the make a match and scramble learning model on student learning outcomes at MTs Pembina Maligas Bayu Simalungun, North Sumatra. The experimental design used a pre-test post-test which was conducted on 35 students for experiment I and 35 students for experiment II. The student sample was taken by a cluster random sampling. The data collected using multiple choice tests. Analysis of the data findings using the t test. The results of the research reveal that the make a match and scramble learning models have a good influence on improving student learning outcomes. Based on the analysis of research data, the facts found are the increase in the value of student learning outcomes with the make a match learning model is greater than the Scramble learning model. This proves that the Make A Match learning model has a good effect on the learning outcomes of class VIII MTs Pembina Maligas Bayu. This research recommends that the make a match and scramble learning models can be used to improve student learning outcomes, especially the excretory system material.

Keywords: learning model, Make a match, Scramble, learning outcomes

1. INTRODUCTION

Teaching and learning activities are a process of interaction or reciprocal relationship between teachers and students in the learning unit. In teaching and learning activities, a teacher must be able to create effective learning conditions which contain various elements that influence each other (Piliang, FM, 2019). The teacher as one component in the teaching and learning process is a very important role holder. Teachers as mentors are expected to be able to create strategic conditions that can make students comfortable in following the learning process (Fakhrurrazi, F., 2018).Therefore, the teacher must be able to make teaching more effective and interesting so that the lesson material delivered will make students feel happy and feel the need to learn the lesson material.

The problem at MTs Pembina Maligas Bayu is that teachers are less creative in using learning models which is applied resulting in passive students and less than optimal learning outcomes. From the results of interviews conducted by researchers with several teachers in the field of science, there were several problems found in class VIII of MTs Pembina Maligas Bayu such as learning that still focused on the teacher and many learning processes that did not involve students so that students became passive.

The problems of the excretory system material experienced by students are where students still do not know and understand the organs that are included in the excretory system, students are not able to explain how the processes that occur in the excretory system are, and students are not able to remember and use Latin. on the excretory system. Another problem is the high KKM value from science lessons so that student learning outcomes are not maximized because only some students reach the KKM (KKM = 73) this is evidenced by the observation of the odd semester report cards that there are still many students who get scores below the KKM (average report card score 69).

To overcome this, it is necessary to apply a more fun learning model so that students are more interested and active in the learning process. For this reason, researchers conducted research using two different learning models, namely the Make a match and Scramble learning models, both of these learning models were considered appropriate in the excretory material to improve student learning outcomes. In this study, students were encouraged to listen to explanations from teachers and peers more critically, as well as to understand and explain concepts in their own words.

The Make a match learning model according to Suyatno (2009:42) is a learning model in which the teacher prepares cards containing questions or problems and prepares answer cards then students look for pairs of cards. The Make a match model trains students to have good social attitudes and trains students' ability to work together in addition to training students' thinking speed.Research that has been conducted (Aliputri, DH, 2018) shows that the Make a Match model with picture card media in grade IV SD N Wulung 1 Blora Regency can improve student learning outcomes. The same thing was also done (Sirait, M & Noer, PA, 2013) showing that student learning outcomes using the make a match type of cooperative learning model were higher than using the direct learning model. Furthermore (Zakiah et al., 2019) based on the results of his research showed an increase in student activity and learning outcomesthrough cooperative learning model make a match by 86%.

Scramble is one of the language games, in essence the language game is an activity to acquire certain skills in an encouraging way (Bahri & Djamarah, 2006: 30). This learning model is a teaching model by distributing question sheets and answer sheets accompanied by answers accompanied by available alternative answers. Students are expected to be able to find answers and ways to solve existing problems. The results of the study (Ariyanto, 2016) in the natural science subject matter concluded that the Scramble learning model can improve student learning outcomes at SDN Sumogawe 03 Semarang Regency in 2016/2017. (Marbun et al., 2019) from the results of their research also concluded that there is an influence of mathmagic with the scramble learning model on student learning outcomes by matching the question cards and answer cards available in random circumstances.

2. LITERATURE REVIEW

This research is a quantitative research, where the results of observations are measured in the form of numbers, then processed using statistical analysis. This type of research is a quasi-experimental study which is analyzed based on the learning outcomes of students in the Experiment I class using the Make a match learning model and the Experiment II class using the Scramble learning model.This research has been carried out in class VIII of MTs Pembina Maligas Bayu Simalungun, North Sumatra for the 2020/2021 academic year.The sample in the study was taken by Cluster Random Sampling. So that class VIII-2 and VIII-3 were chosen, where both classes were experimental classes with 35 students in each class.This study uses a Pre-Test and Post-Test Design as stated by Arikunto (2006:86).

Table 1. Research Design

Pre-test	Treatment	Post-test
T1(A)	X(A)	T2(A)
T1(B)	X(B)	T2(B)

Information :
T1(A) = Pre-test given to experimental group A (Make a match/Class VIII-2)
T1(B) = Pre-test was given to experimental group B (Scramble/Class VIII-3)
X(A) = Make a match learning for experimental class A (class VIII-2)
X(B) = Scramble learning for experimental class B (class VIII-3)
T2(A) = Post-test given to experimental group A (Make a match/Class VIII-2)
T2(B) = Post-test was given to experimental group B (Scramble/Class VIII-3)

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Data analysis techniques in this research were carried out in several ways.The first is the calculation of learning outcomes scores. The student learning outcome score is calculated by dividing the student's acquisition score by the maximum score (maximum score is 20) and multiplied by 100. The learning outcome score is in the range 0 – 100 (the learning outcomes category is presented in Table 2).Then a descriptive analysis was carried out to describe the research data including the mean, mode, median, standard deviation, minimum and maximum values. Furthermore, inferential statistical analysis was carried out to test the research hypothesis, which was first carried out prerequisite tests on the data collected using the normality test (Kolmogorof-Smirnov test at a significant level of 5%) and homogeneity (using Levene Test at a significant level of 5%).Further test using t test was conducted to find out which variables had significant differences. Data were analyzed using SPSS 21.0 software.

Table 2. Category of Learning Outcomes (HB)

interval	Category
HB 80	Very good
70 HB < 80	Well
60 HB < 70	Enough
40 HB < 60	Not enough
40 > HB	Very less

3. RESULTS AND DISCUSSION

3.1 Data requirements

The research was conducted to prove the effect of the Make a match and Scramble learning models on student learning outcomes at MTs Pembina Maligas Bayu. The research findings are descriptively presented in Table 3.

Table 3. Description of Student Learning Outcomes

Statistics	Mark *Pretest*		Posttest Score	
	Experiment I	Experiment II	Experiment I	Experiment II
mean	56.91	55.43	88.23	84.91
Std. Deviation	7,827	7,770	6,647	6.514
Max Value	72	72	100	96
Min Value	44	44	72	72

Based on Table 2, it was revealed that the pretest data from the two experimental classes indicated that the students' abilities were low. Judging from the minimum score, the scores obtained by students in these two classes look very poor. Achievement of the maximum score is in the good range but has not yet reached the KKM(KKM = 73). Facts are seen to change after the learning process. The average learning outcomes in these two classes reached 88.23 (experimental class I) and 84.91 (experimental class II) with a difference of 3.32. The minimum scores in these two classes indicate that the achievement of student scores is good after being given treatment. Likewise, the maximum scores for these two classes reached 100 (experimental class I) and 96 (experimental class II), indicating excellent achievement results. However, the fact remains that there is a difference in scores (4.00) between the experimental class I (make a match) and the experimental class II (scramble). To test for significant differences, a t-test was carried out, but first the analysis prerequisite test was carried out which will be described below:

ISSN 2302-0059

Table 1. Test of Homogeneity of Pretest Data Experiment Class I (VIII-2)

Test of Homogeneity of Variances			
Pretest			
Levene Statistics	df1	df2	Sig.
.828	5	28	.540

Facts based on the test results, the significant value obtained is 0.540, which means sig > 0.05, so it can be concluded that the data has the same variance (homogeneous).

Table 2. Homogeneity Test of Experimental Class II (VIII-3) Pretest Data

Test of Homogeneity of Variances			
Pretest			
Levene Statistics	df1	df2	Sig.
.469	5	28	.796

The value obtained is 0.796, the fact is that the data is homogeneous.

Table 6. Normality Test of Pretest Data for Experiment I (VIII-2) and Experiment II (VIII-3)

One-Sample Kolmogorov-Smirnov Test			
		Experiment I	Experiment II
N		35	35
Normal Parameters, b	mean	56.91	55.43
	Std. Deviation	7.827	7,770
Most Extreme Differences	Absolute	.122	.158
	Positive	.106	.156
	negative	-.122	-158
Kolmogorov-Smirnov Z		.723	.935
asymp. Sig. (2-tailed)		.673	.346

The experimental class I obtained a sig value of 0.673 > 0.05 and the experimental class II obtained a sig value of 0.346 > 0.05. Thus, the pretest data for the experimental class I and the experimental class II were normally distributed.

Table 73. t-test Data Pretest Experiment Class I (VIII-2) and Experiment II (VIII-3)

Paired Samples Test									
		Paired Differences					T	df	Sig. (2-tailed)
		mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pairs 1	Pretest Results	54,671	7,842	.937	52.802	56,541	58,328	69	.000

The table above reveals the data tcount = 58,328 at the significant level = 0.05 and dk = 69 obtained ttable = 1.692 then tcount (58.328) > ttable (1.692). This indicates that there is a significant effect of the Make A Match and Scramble Learning Model on Student Learning Outcomes at MTs Pembina Maligas Bayu.

Table 84. Test of Homogeneity of Posttest Data Experiment Class I (VIII-2)

Test of Homogeneity of Variances

Posttest			
Levene Statistics	df1	df2	Sig.
1.093	5	27	.387

Based on the test results, the significant value obtained is 0.387, which means sig > 0.05. In fact, the experimental class I posttest data have the same variance (homogeneous).

Table 95. Test of Homogeneity of Posttest Data Experiment Class II (VIII-3)

Test of Homogeneity of Variances			
Posttest			
Levene Statistics	df1	df2	Sig.
.650	5	28	.664

The results obtained 0.664 means sig > 0.05, it can be concluded that the posttest data for the experimental class II has the same variance (homogeneous).

Table 106. Posttest Data Normality Test Experiment Class I (VIII-2) and Experiment II (VIII-3)

One-Sample Kolmogorov-Smirnov Test			
		Experiment I	Experiment II
N		35	35
Normal Parameters, b	mean	88.23	84.91
	Std. Deviation	6,647	6.514
Most Extreme Differences	Absolute	.172	.127
	Positive	.093	.127
	negative	-.172	-119
Kolmogorov-Smirnov Z		1.017	.753
asymp. Sig. (2-tailed)		.252	.623

The experimental class I obtained a sig value of 0.252 > 0.05 and the experimental class II obtained a sig value of 0.623 > 0.05. Thus, the posttest data of the experimental class I and the experimental class II are also normally distributed.

Table 117. t-test Posttest Data Experiment Class I (VIII-2) and Experiment II (VIII-3)

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pairs 1	Posttest Results	85,071	6.885	.823	83.430	86,713	103,381	69	.000

Table 11 reveals the data tcount =103,381 at the significant level = 0.05 and dk = 69 obtained ttable = 1.692 then tcount (103,381) > ttable (1,692). This fact indicates that there is a significant effect of the Make A Match and Scramble Learning Model on Student Learning Outcomes at MTs Pembina Maligas Bayu.

The research findings reveal the fact that the make a match and scramble learning models have a good influence on improving student learning outcomes. Student learning achievement can exceed the KKM score and even become very good when taught with the make a match and scramble

learning model on the excretory system material. However, based on the analysis of research data, the fact found is that the increase in the value of student learning outcomes with the Make A Match learning model is greater than the Scramble learning model. This proves that the Make A Match learning model has a good effect on the learning outcomes of class VIII MTs Pembina Maligas Bayu.

The findings of this study are related to previous research that has been studied by Enjoynafiah et al., (2019). Their findings show thatThe average score of students taught using Make A Match is higher than the average score of students taught using Scramble in class VII SMP Negeri 22 Bengkulu City.

The Make A Match learning model can improve student learning activities both cognitively and physically because there are elements of fun games in it so that it can increase students' understanding of the material being studied and can increase student learning motivation (Huda, 2013). Meanwhile, according toOnirita el al., (2017), the Scramble learning model can encourage students' understanding of the subject and train students to be more disciplined.

4. Conclusions

It is concluded in this finding that the make a match and scramble learning models have a good impact on improving student learning outcomes. The average student learning outcomes who are taught using the make a match and scramble learning models can exceed the KKM score and even reach the very good predicate. However, the fact found from this research is that the value of student learning outcomes with the make a match learning model is greater than the scramble learning model. This research recommends that the make a match and scramble learning models can be used to improve student learning outcomes, especially the excretory system material.

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