THE APPLICATION OF MURDER LEARNING MODEL AND EFFECT ON STUDENT LEARNING OUTCOMES

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Abstract:

This study aims to analyze the differences in learning outcomes between students learning with the MURDER learning model and students who take conventional learning, namely lecturing on. This type of research used is the quasi-experimental design with the research design used Posttest-Only Control. The study population was grade VIII students at MTs. Darun Najah Al-Falah Telaga Waru West Lombok, Indonesia. The sample in this study were students of grade VIII totaling 40 people. The sampling technique used cluster sampling. Data were analyzed using descriptive statistical analysis. The learning outcome data were collected using a multiple-choice test instrument with a total of 20 questions. Based on the results of the data analysis, the results of t_{count} = 2.102 and t_{table} = 1.686 at the 5% significance level, which means $t_{count} > t_{table}$. The results of this study indicate that there are significant differences in learning outcomes between students using the MURDER learning model and students using conventional learning models. From the results of descriptive statistical analysis, it is known that the mean value of the experimental group is 64.5 and the mean value of the control group is 57.25. This means that the average score in the experimental group is greater than the average score in the control group, so it can be concluded that learning using the MURDER learning model has an effect on student learning outcomes.

Keywords: MURDER, mood, understand, recall, digest, expand, review, learning outcome

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1. Introduction

Teaching is defined as the process of conveying information or knowledge from the teacher to students, the process of delivering it is often seen as the process of transferring knowledge. In this context, transferring does not mean moving like transfer of money. In this modern era, the perspective of teaching which is only limited to conveying knowledge is deemed no longer appropriate to the situation (Fathurrahman, 2015). Because basically education is a process of changing human behavior to become independent, mature, and have a personality (S. Bruner, 1960). Therefore it is important for every teacher to understand as well as possible about the student's learning process, so that he can provide guidance and provide an appropriate and harmonious learning environment for students (Anwar, 2018; Hamalik, 2015; Prashing, 2007; Suyanto & Jihad, 2013).

In order for teachers to carry out their professional duties, they need insight and innovation regarding possible teaching strategies in accordance with teaching goals (Retnowati et al., 2018; Rohani, 2010; Tang & Lim, 2018). So in a teaching event often more than one strategy must be treated (Musfah, 2018; Utami, 2019). The teacher applies the learning strategy depending on the approach used, while how the teacher applies the learning strategy can use the appropriate learning model (Sanjaya, 2014). So we need a teaching and learning strategy that provides opportunities for students to find their own knowledge (Harjali, 2009; Rizali, 2009) Besides, students are also expected to be able to develop their own critical thinking, analytical and creative skills (Ferazona, 2020) and learning activities are expected not always teacher centered but must be student centered so that they can improve student learning outcomes (Harahap et al., 2019).

Based on the results of observations at MTs. Darun Najah Al-Falah Telaga Waru found that teachers in these schools still use conventional teaching and learning strategies using the lecture method, this shows that teaching and learning activities at MTs. Darun Najah Al-Falah Telaga Waru is still teacher-centered, this results in students becoming passive so that student participation in teaching and learning activities is low, students don't pay attention to the teacher explaining because they feel bored and unmotivated, the application of the lecture method makes student participation lacking, it also results in low student learning outcomes.

One of learning model that can be applied to improve student learning outcomes is to apply the MURDER learning model. The MURDER learning model is a learning model consisting of 6 steps designed to be used by groups, MURDER Learning is learning adapted from Bob Nelson's book "The Complete Problem Solver" which is a combination of several words which include: Mood, Understand, Recall, Digest, Expand and Review (Hayes, 1981). Several previous studies have proven that the MURDER learning model is a learning model that has been able to improve student learning outcomes (Berata et al., 2013).

2. Literature Review

2.1 MURDER Learning Model

MURDER is an acronym for **M**ood, **U**nderstand, **R**ecall, **D**igest, **E**xpand and **R**eview, therefore this learning model consists of 6 steps designed to be used by groups, MURDER Learning is learning adapted from Bob Nelson's book "The Complete Problem Solver." Which is a combination of several words which include: Mood, Understand, Recall, Digest, Expand and Review (Hayes, 1981).

The following are the steps for implementing the MURDER learning model:

1) Mood, the first step is setting the mood for the study. Dansereau sees two major problems in setting the right mood. One is creating a positive attitude one somehow overcomes fear and study resentment, the second is overcoming distraction.
2) Understand, in using this system, it is recommended that when you first read the text to mark any part of the text you do not understand.
3) Recall, Recall is an active effort to enter information into long-term memory. This can be done by "binding" the facts to visual, auditory, or physical memory. The brain has many memory devices. More and more devices (senses) involved, the better a new information is recorded.
4) Digest, During the "digest" step, the teacher is present for marked parts which are still not clear to students after further reading.
5) Expand, in this step, you ask and answer three types of questions, namely: If you can talk to the author, what kind of questions or criticism will be constructive to?, How is the material applied?, How can you make the material more understandable and interesting to others
6) Review, review the subject matter that has been studied. A learning process will take place effectively if the information learned can be remembered properly and forgetting is avoided.

2.2 Learning Outcome

Learning outcomes are abilities that students have after receiving their learning experiences. The abilities that students have as a result of their learning can be observed through the appearance of students. Bloom (1956) states that learning outcomes include cognitive, affective, and psychomotor abilities. Meanwhile, according to (Lindgren, 1976) learning outcomes include skills, information, understanding, and attitudes, meanwhile (Winkel, 1989) argued that learning outcomes are the successes achieved by students, namely student achievement in schools that manifest in the form of numbers. What must be remembered, learning outcomes are changes in overall behavior, not just one aspect of human potential. This means that the learning outcomes categorized by education experts as mentioned above are not seen as fragmentary or separate, but rather comprehensive (Suprijono, 2015).

3. Material and Methods

3.1 Research Design
This research is a quantitative research with a quasi-experimental type of experimental research. where this study uses a post test only control design pattern (Sugiyono, 2014). The research subjects in this study were students of grade VIII MTs. Darun Najah Al-Falah Telaga Waru, West Lombok Regency, Indonesia.

3.1 Population
The population in this study were students of grade VIII MTs. Darun Najah Al-Falah Telaga Waru, West Lombok Regency, Indonesia, amounting to 40 students, consisting of 20 students of grade VIII A as the experimental class and 20 students of class VIII B as the control class.

3.2 Sample and Sample Procedure
The sample in this study were students of grade VIII MTs. Darun Najah Al-Falah Telaga Waru, West Lombok Regency, Indonesia, amounting to 40 students, while the sampling technique uses cluster sampling.

3.3 Research Instrument
The data collection instrument in this study used a test instrument which amounted to 20 multiple choice questions. Who has gone through the process of validity and reliability testing.

3.4 Procedure for Data Collection
The data collection method uses test and observation instruments, before data collection is carried out first a quasi-experiment is carried out, namely applying the MURDER learning model for the experimental class and the conventional method for the control class.

3.5 Data Analysis Procedure
Data analysis was carried out by using the independent sample t-test analysis, namely by comparing the post-test results of the experimental class and the control class. has a positive and significant relationship or influence on the dependent variable. Conversely, if $t_{count} > t_{table}$, then the independent variable is said to have no positive and significant influence on the dependent variable. To make it easier the researchers used the help of SPSS 16. For windows software.

The hypothesis used by the researcher is the alternative hypothesis (Ha), which reads "There is an effect of the implementation of the MURDER learning model on student learning outcomes". Meanwhile, the null hypothesis (H0), "There is no effect of the application of the MURDER learning model on student learning outcomes".

4. Results and Discussion

In learning activities, achieving learning objectives effectively and efficiently is the goal of carrying out a learning process, to achieve learning objectives, appropriate and varied strategies are needed in accordance with the objectives to be achieved. The achievement of learning objectives can be seen through student learning outcomes, because to get results well then use a good strategy too. As for this research, it can be seen that the student learning outcomes between students who are taught with the MURDER learning model and students who are not taught using the MURDER learning model, it appears that there is a difference where the learning outcomes of students taught with the MURDER learning model are better than those taught with the MURDER learning model.

Based on the results of statistical descriptive analysis, it was obtained that the post-test scores of the experimental class students were treated with the control class students who were not treated as follows:

Table 1: Comparison of Post-Test Values for Experiment and Control Class

No	Value	Post Test	
		Experiment	Control
1	Sum	1290	1145
2	Mean	64,5	57,25
3	Min	45	40
4	Max	90	80
5	Median	65	55
6	Mode	65	45
7	S (Deviation Standard)	10,5006	11,295
8	S^2 (Variance)	110,263	127,566
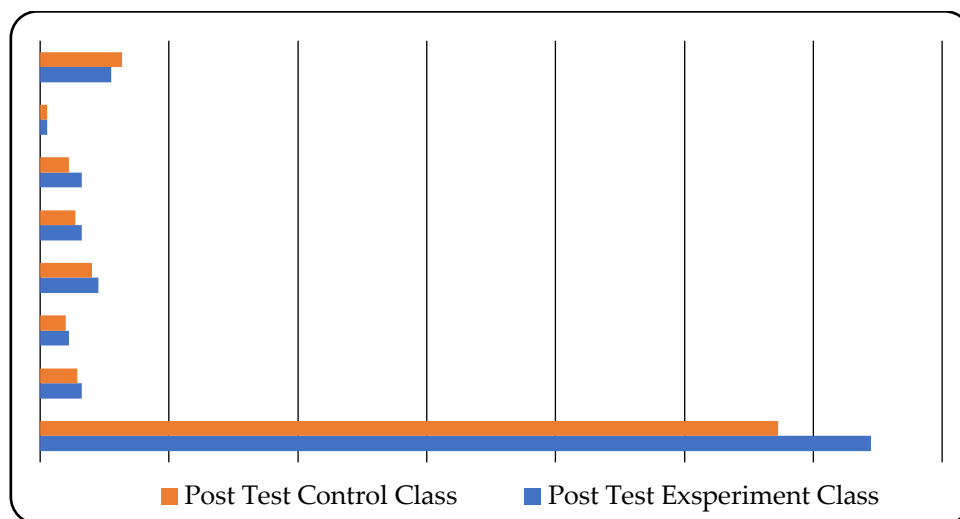
Figure 1: Comparison of Post-Test Values for Experiment and Control Class

Based on the comparison table of the results of the descriptive statistical analysis of the post-test scores of the experimental and control classes above, it can be seen that there is a difference between the experimental and control classes for the mean, the experimental class is 64.5, the control class is 57.25. The average score of the experimental

class is higher than the average score of the control class. This means that there are also many students who get good grades in the class in the experimental class.

Then for the median, the experimental class 65 control class 55, the highest score the experimental class 90, the control class 80, the lowest value the experimental class 45 the control class 40 shows that the experimental class students have a greater value and it is better than the control class, this also indicates that students in the experimental class can catch the learning material faster than the control class students do not catch the learning material so quickly.

Before testing the hypothesis, the normality test and data homogeneity test were carried out. From the results of the normality test, namely by using the Shapiro Wilk Normality Test, it was found that the samples came from normally distributed populations, this is indicated by the results of the SPSS 16 output for windows as follows:

Table 2: SPSS.16 Output Results, Shapiro Wilk Normality Test

Tests of Normality							
	Groups	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	Df	Sig.
Nilai	Experiment	.150	20	.200[*]	.961	20	**.558**
	Control	.140	20	.200[*]	.951	20	**.382**
a. Lilliefors Significance Correction							
*. This is a lower bound of the true significance.							

Based on the data from the SPSS 16 for windows output above, the sig value is found. The experimental class is 0.558 and the sig value. For the control class it is 0.382, this means that for the experimental class sig>0.05 (0.558> 0.05) this means that the sample from the experimental class population is normally distributed, then for the control class sig>0.05 (0.382>0.05) This means that the sample from the control class population is normally distributed.

Furthermore, for the homogeneity test, it was found that the variance in the two groups being compared was homogeneous, this is indicated by the results of the SPSS 16 for windows output as follows:

Table 3: Results of the Homogeneity Test

Test of Homogeneity of Variances			
Value			
Levene Statistic	df1	df2	Sig.
.852	1	38	.362

ANOVA					
Value	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	525.625	1	525.625	4.420	.042
Within Groups	4518.750	38	118.914		
Total	5044.375	39			

Based on the results of calculations with the help of the SPSS 16 for windows program above, a significance value of 0.362 was obtained, from these results it can be concluded that sig. Greater than 0.05 (0.362>0.05) this means that the variance in the group data is the same or Homogeneous.

After the two requirements are met, an analysis is carried out to prove the hypothesis by using the t-test formula using SPSS 16 for windows in the form of an independent sample test. The results of the SPSS.16 output using the independent sample t-test method are as follows:

Table 4: Independent sample t-test

Independent Samples Test											
		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
									Lower	Upper	
Value	Equal variances assumed	.852	.362	**2.102**	38	.042	7.250	3.448	.269	14.231	
	Equal variances not assumed			**2.102**	37.800	.042	7.250	3.448	.268	14.232	

The results of the calculation are then compared with t table with dk = n1 + n2-2 = 20 + 20-2 = 40-2 = 38, with dk = 38 and an error rate of 5%, then t-table = 1.686, as for the hypothesis testing criteria in this research is as follows:

- If t-count is greater than t-table (t_{count}>t_{table}) then accept Ha and reject H0.
- If t-count is smaller than t-table (t_{count}<t_{table}) then accept H0 and reject Ha.

Based on the results of the above calculations, it is found that the t-count value is 2.102 and the t-table is 1.686, then t_{count}>t_{table} (2.102> 1.686) and this means that Ha (alternative hypothesis) which says "there is an effect of the application of the MURDER learning model on the student learning outcome". Accepted, and H0 (null hypothesis) which reads "there is no effect of the application of the MURDER learning model on the student learning outcomes". Rejected, in general it can be concluded that there is a significant difference between the learning outcomes of the experimental class students who are taught with the MURDER learning model and the control class students' learning outcomes taught with conventional strategies. This is in line with research conducted by (Permatahati & Wangid, 2019) who found that the MURDER model with image media can improve the learning outcomes of fourth-grade elementary school students, and also research from (Berata et al., 2013) who found that there were significant differences in

science learning outcomes between students who took MURDER'S CLMMS learning model and students who took conventional learning models.

5. Recommendations

It is recommended that for teachers, it is better if they are more creative and innovative and varied in using teaching and learning strategies because the use of strategies with the same method will make students become bored and quickly get bored in learning so that learning outcomes will be low, the MURDER learning model is an alternative learning strategy that can be used by teachers in teaching, with the application of this strategy is expected to provide variety and can improve learning outcomes. For further research, especially those that will raise the MURDER learning model, it is hoped that this research can develop with a wider scope.

6. Conclusion

The implementation of teaching and learning activities using the MURDER learning model shows that students can receive and understand the material well in a calm mood, then students do not get bored quickly and are not busy alone or busy chatting, this is because with this strategy students are required to actively seek own knowledge so that the teacher's role is limited to being a facilitator. So, it can be concluded that there is an effect of the application of the MURDER learning model on student learning outcomes in Class VIII MTs. Darun Najah Al-Falah Telaga Waru, West Lombok. This can be proven by the results of the final calculation of the data obtained by the independent sample t-test obtained by the value of $t_{count} > t_{table}$ or (2.102>1.686) with a significant level of 0.05 (5%), so this research is influential and significant.

About the Authors
Andriyadi and Sukidjo are students and Lecturer in postgraduate Yogyakarta State University, Andriyadi are Masters candidates in the field of economic education, who are interested in the field of economic education research. Sukidjo are lecturers at postgraduate Yogyakarta State University who are interested in the field of economic research.

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