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The Influence of Discovery Learning Model for the Result of Social Subject Grade VIII SMP Swasta Bina Guna Tanah Jawa

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A B S T R A C T

This type of research is *quantitative research* . The population in this study were all students in class VIII of Bina Guna Tanah Java Private Middle School with a total of 66 students. The sample in this study consisted of 2 classes, namely class VIII-1 and class VIII-2 with a total of 66 students. Based on the results of descriptive analysis, it shows that the average social studies learning outcomes for students in classes that do not use the *discovery learning model* is 71.76. Meanwhile, the average student learning outcomes in classes that use the *discovery learning model* is 73.91. The results of inferential statistics using *SPSS version 21* obtained *Sig(2 Tailed)<a* or (0.000<0.05) and the $_{\text{calculated t value}}$ > t $_{\text{table}}$ (3.818>1.294). So, based on the testing criteria, it can be said that there is a significant difference in learning outcomes between classes that use the discovery learning model and classes that use the conversion learning model in class VIII Anatar Nagara-ASEAN Countries Interaction material in social studies subjects at Bina Guna Tanah Java Private Middle School.

INTRODUCTION

Learning outcomes are students' abilities obtained after learning activities. Learning outcomes are certain competencies or abilities achieved by students after following the teaching and learning process and include cognitive, creative and psychomotor skills. So, learning outcomes are defined as changes in a person's behavior which may be caused by changes in their level of knowledge, skills or attitudes.

The definition of learning is an activity where there is a process from not knowing to knowing, not understanding to understanding, not being able to becoming able to achieve optimal results. Thus, learning outcomes are learning achievements achieved by students in the process of teaching and learning activities by bringing about a change and shaping a person's behavior.

Many factors can cause student learning outcomes at school to decline, including the lack of student learning models in learning. Things like this can cause student learning outcomes at Bina Guna Private Middle School to remain unsatisfactory, especially in social studies subjects because the learning methods used by teachers so far use conventional methods. Which is still focused on the lecture method, question and answer, discussion, and exercises/assignments. Teaching and learning activities only focus on the teacher and students spend most of the lesson time listening to and taking notes on the teacher's explanations and when the teacher creates discussion groups the results are also not satisfactory because not all of the students in the group play an active role. Based on the results of researchers' observations, student learning outcomes are still low and the grades obtained by students are still low or below the Minimum Completeness Criteria (KKM) standards.

It can be clearly seen that there are 66 students from class VIII-1 to class VIII-2, with the learning outcomes of Class VIII-1 students being 56.2% incomplete, Class VIII-2 55.8% of students not completing or their grades still low. under the Minimum Completeness Criteria (KKM).

In solving the above problems, a learning model is needed that is able to improve students' learning so that they can create student-centered learning. The discovery learning learning model is a learning process that focuses on students' ability to solve a problem or problem in the learning process through their curiosity in finding important things in the learning material. However, what will be discussed is the learning model in junior high school, an explanation of the learning model as one of the things that can support student success, because in the teaching and learning process teachers often forget to use the discovery learning learning model in the classroom.

Based on the background of the problem above, the author is interested in conducting research with the title "The Influence of the Discovery Learning Learning Model on Class VIII Social Studies Learning Outcomes at Bina Guna Tanah Java Private Middle School."

THEORETICAL FRAMEWORK

1. Learning outcomes

Results Study according to view public is activity someone visible _ form Sitting in class , listening to the teacher explain , memorize or do return what has _ obtained at school they looking Study is simply gather or memorize the factors presented in material lesson . According to Suprijono (2015:6-7), results Study covers ability cognitive , affective and , psychomotor . Cognitive domain are Knowledge (knowledge , memory), comprehension (understanding , explaining , summarizing , examples), application (applying), analysis (elaborating , determining relationships), synthesis (organizing , planning , forming building new), and evaluation (assess). Based on the opinion above, it can be concluded that learning outcomes can be defined as the abilities that students have after carrying out learning activities in the form of numbers or scores obtained from assessments or tests carried out in the ongoing process.

2. Discovery Learning Learning Model

The Discovery Learning learning model is understanding concepts, meanings and relationships through an intuitive process to finally arrive at a conclusion. According to Sund in Roestiyah (2012:20), discovery is a mental process where students are able to combine a concept or principle. These mental processes include activities: observing, digesting, understanding, grouping, making guesses, explaining, measuring, making conclusions and so on. Based on the opinion above, it can be concluded that discovery learning (guided discovery) is a learning model that encourages students to be actively involved in discovering a new concept which is then combined with previously known concepts. In learning with this model, the teacher only acts as a guide and facilitator who directs students to discover procedures, concepts or principles.

METHODS

According to Sugiyono (2019:2) research methods are a scientific way to obtain data with certain goals and uses. In this research, researchers used quantitative research methods. The quantitative method is a positivistic method because it is based on the philosophy of positivism. This method is a scientific/scientific method because it meets scientific principles, namely concrete/empirical, objective, measurable, rational and systematic.

Based on title researcher " The Influence of the Discovery Learning Learning Model on Class VIII Social Sciences Learning Outcomes at Bina Guna Tanah Java Private Middle School" . Study This implemented in private junior high schools Build Use of Java Land TP 2022/2023. starting from May to September 2023 . Population in study This is student class VIII SM P Bina Guna Tanah Java as much as 2 classes totaling 66 _ students . Sample _ in study This is There are 66 students in classes VIII-1 and VIII-2 students .

RESULTS & DISCUSSION

Result

Test Validity Instrument

Based on the test results using SPSS version 22 and validity test criteria, each item is declared valid if r count > r table. The results of the instrument trial were 25

questions tested on students. In calculating the 25 test questions, the conclusion was that 20 questions were declared valid and 5 questions were declared invalid.

Test Reliability Instrument

For criteria reliability questionnaire If $r_{count} > r_{table}$ with level significant ($\alpha = 0.05$) then questionnaire That said reliable . However If $r_{count} \leq r_{table}$ so question considered No own reliability . If mark *Cronbach Alpha* > 0.60 said reliable , however If mark *Cronbach Alpha* < 0.60 is said No reliable .

Based on test reliability instrument on questions taken in private junior high schools Build Use Javanese Land done calculation with use *SPSS Version* 21 with formula *Cronbach's alpha* , obtained results reliability with coefficient 0.812. . From the results calculation *SPSS version 21* can concluded that instrument research used _ reliable .

Test the Difficulty Level of the Questions

The question difficulty level test is used to find out whether the questions being tested are included in the easy, medium or difficult question categories. Test the level of difficulty of the test using SPSS version 21. It can be concluded that each question item has a varying level of difficulty. The smallest level of difficulty value is 0.48 in question number 2. The highest level of difficulty value is 0.93 in question number 13. This means that each question item is suitable to be tested on the research sample.

Test Power Differentiator Question

Differentiating power of test items using SPSS version 21. Based on the results of calculating the differentiating power of the questions, 19 questions were obtained in the good category, 1 question in the fair category and 5 questions in the bad category. This means that each question item has a different distinguishing power. Based on the results of the analysis on calculating the validity of test items, test reliability, level of difficulty of test items, and the differentiating power of test items, the conclusion is that this research instrument meets the requirements to be used in data collection.

Descriptive Result Data study

Pretest result data for class VIII-1 and class VIII-2

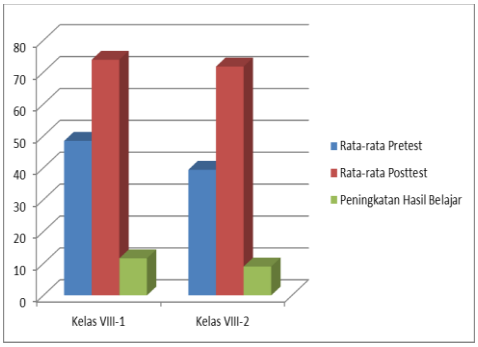
This research was carried out using the SPSS version 21 test which is attached in the attachment. Researchers conducted a pretest in class VIII-1 as an experimental class and class VIII-2 as a control class to determine the initial abilities of students. It is known that the average initial ability of students before being given treatment in class VIII-1 was an average of 48.44 with the highest score being 85 and the lowest score being 30. Meanwhile in class VIII-2 the average initial ability of students was 39.41 with the highest score of 65 and the lowest score of 20.

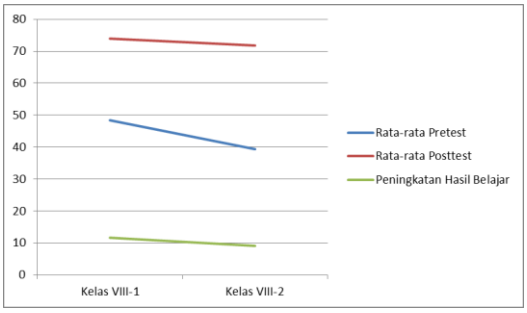
Results Data *Posttest* Class VIII-1 and Class VIII-2

Researchers conducted a posttest in class VIII-1 as an experimental class and class VIII-2 as a control class to determine students' understanding of the material obtained after the learning process. It is known that the average posttest learning result for class VIII-1 is 73.91 with the highest score being 90 and the lowest score being 45. Meanwhile in class VIII-2 the average posttest result is 71.76 with the highest score being 85 and the lowest value is 40.

Upgrade Data Results Study Participant Educate

Figure 1 . Bar chart enhancement results Study student





Picture 2. Graphics Enhancement Results Study Student

Based on the data above can is known that the average results Study student on class VIII-1 (class experiment) experienced enhancement that is of 11,621 and average results Study class VIII-2 (class control) experienced enhancement that is amounting to 9,035. Based on table that , that results Study object And method imposition tax student on group more talking stick learning Good from on results Study administration tax student on group learning conventional .

Test Technique Data Analysis

Test Data Normality

Table 1. Results Test Normality

Tests of Normality

	Class	Kolmogorov- Smirnov[a]			Shapiro- Wilk		
		Statistics	Df	Sig.	Statistics	df	Sig.
Results Study Student	Pretest Experiment	.126	32	.200 *	.910	32	.012
	Posttest Experiment	.174	32	.055	.897	32	.005
	Pretest Control	.140	34	.088	.962	34	.275
	Posttest Control	.146	34	.064	.942	34	.072

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

(Sumber data : SPSS versi 22)

Based on table data the , shows that mark significance (sig) Based on mean more big than α value = 0.05 . Table 1 obtain calculation with using *SPSS version* 21 is known *pretest* experiment (*Discovery Learning*) class VIII-1 has 0.070 > 0.05, and *posttest* experiments (*Discovery Learning*) have mark significance 0.077 > 0.05. Whereas class

control class VIII-2 has 0.067 > 0.05, and *posttest* control has 0.061 > 0.05. From calculations with use *SPSS version* 21 Means can is known that *pretest* And *posttest* class experiment And class control made _ sample study own distribution of data that is normally distributed , because mark *pretest* And *posttest* class experiment And mark *pretest* And *posttest* class control > from level test significance namely 0.05 so the data is normally distributed .

Heteroscedasticity Test

Table 2. Test Homogeneity *Pre-Test*
Test of Homogeneity of Variance

		Levene Statistics	df1	df2	Sig.
Results Study Student	Based on Mean	1,221	1	64	,273
	Based on Median	1,430	1	64	,236
	Based on Median and with adjusted df	1.430	1	63.590	.236
	Based on trimmed mean	1.013	1	64	.318

Based on results testing data with use *SPSS version* 21 ie obtained Sig value = 0.273. In matter This means sig value is more big from α value where 0.273 > 0.05 . So that can concluded that second data class experiment And class control is homogeneous so No There is difference between both of them and existing data can said to be normal and own the same variance . Each class own equality between outstanding students _ And Also own less students _ or slow in learn .

Hypothesis testing

Based on test precondition analysis statistics obtained that *pretest* data And *posttest* normally distributed and homogeneity , so testing can next with use test *independent sample t test* on SPSS version 21. Test hypothesis done For find out that the data has a normal distribution results Study student with talking stick learning models and conventional models .

Tabel 3. Pengujian Hipotesis Kelas Eksperimen dan Kelas Kontrol
Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Results Study Student	Equal variances assumed	2,642	,109	3,762	64	,000	7,270	1,932	3,410	11,131
	Equal variances not assumed			3,818	54,388	,000	7,270	1,904	3,453	11,088

Based on objective study with processing results *SPSS version* 22, shows that significance t $_{table}$ is 0.05 _ And amount sample completely 66-2 = 62 students with t $_{table}$ 1.294. Based on test *independent sample t-test* obtained t $_{count}$ > t $_{table}$ (3,818 > 1,294 meaning alternative hypothesis (Ha) is accepted . With testing hypothesis can concluded that There is difference results significant learning _ between class that uses the model learning *Discovery Learning*.

Discussion

The research conducted at Bina Guna Tahah Java Private Middle School involved two classes, namely the experimental class and the control class. Before being given treatment, both classes were given a pre-test first to determine the students' initial abilities. The average score for the experimental class was 48.44 and for the control class was 39.41.

After knowing the initial abilities of students in both classes, at the next meeting students were given different lessons. Students in the experimental class were taught using the Discovery Learning learning model and students in the control class were not taught using the Discovery Learning learning model. After being given different treatment in the experimental class and control class, at the end of the meeting after the material had been taught, students were given a post-test to determine student learning outcomes. The average post-test score in the experimental class was 73.91 while the control class was 71.76.

Based on the average post-test score for the two classes, it can be seen that the average post-test score for the experimental class is higher than the average post-test score for the control class using the t test to prove whether there is a significant influence and variation in learning outcomes.

The results obtained in the inferential analysis illustrate the influence of the Discovery Learning learning model on students' Economics learning outcomes at Bina Guna Tanah Java Private Middle School. This can be seen in hypothesis testing using the independent sample t-test, where the data tested are the results of the post-test for both classes. Based on the learning results obtained from this test, it can be concluded that student learning outcomes improved after using the Discovery Learning learning model compared to teaching without using the Discovery Learning learning model.

In testing the hypothesis using the independent sample t-test with the data tested being the results of the posttest for the experimental class and control class using a significance level of 5% or = 0.05. Obtained tcount of 3,818. then it is known that thit > ttab (3.818 > 1.294), which means the alternative hypothesis is accepted. This shows that (1) there are differences in student learning outcomes using the talking stick learning model and conventional learning models, (2) Student learning outcomes using the discovery learning mode are better than student learning outcomes using the conventional model. This is known from the results of the average test score on student learning outcomes using the discovery learning model which is higher than the average test score on student learning outcomes using the conventional learning model for students at Bina Guna Tanah Java Private Middle School.

CONCLUSIONS AND RECOMMENDATIONS

Based on results activity learning that has been done done And based on research data analysis can concluded that learning model *Discovery Learning* is influential to results Study participant educate , because during the learning process there is element the game being played to students , so can grow competition between participant educate And classroom learning _ can more interesting .

Conclusion the based fact from results research conducted _ by researcher on class experiment (VIII-1) with obtained enhancement results Study amounting to 11,621 with *pretest* average score = 48.44 And results *posttest* average score = 73.91. Whereas on class control (VIII-2) was obtained enhancement results Study amounting to 9,035 with *pretest* average score = 39.41 And *posttest* average score = 71.76. It means there is significant difference _ between enhancement results Study student class VIII-1 through a learning model *discovery learning* with class VIII-2 who studied with a learning model conventional .

FURTHER STUDY

1. For educators , learning models *discovery learning* is expected can used as alternative in give variation learning .
2. For school specifically head school as leader expected can give support to educator in selecting the right learning model .
3. For researcher continuation , who wants apply the learning model *Discovery Learning* should customized with the implementation process especially in matter allocation time , facilities supporter in the form of learning media , and characteristics participant existing education _ on school place of learning model This implemented .

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