International Journal of Education, Information Technology and Others (IJEIT), August 2024 7(3) 95-101
DOI: https://doi.org/10.5281/zenodo.13623951
p-ISSN: 2654-2528 e-ISSN: 2623-2324
Accredited by Directorate General of Strengthening for Research and Development
Available online at https://jurnal.peneliti.net/index.php/IJEIT

The Influence of Learning Models *Inquiry Training* Regarding the Learning Outcomes of Class Ix Students at SMP Negeri 5 Sumenep

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Received: 13 July 2024
Revised: 22 July 2024
Accepted: 30 July 2024

Abstract

This study aims to determine the effect of the Inquiry Training learning model on the Learning Outcomes of Class IX Students of SMP Negeri 5 Sumenep. The research method used is a quasi experiment. The research design used is nonequivalent control group design. The sample in this study were students of class IX A as an experimental class totaling 31 students and class IX C as an experimental class totaling 30 students. The research instrument used was a description test question to see student learning outcomes. The results of the Independent Sample T-Test hypothesis test showed a significance value of 0.008 <0.05 which states that H0 is rejected and H1 is accepted so it can be concluded that the use of the Inquiry Training learning model has a significant effect on student learning outcomes on Electrical Circuit material

Keywords: Student Learning Outcomes, Inquiry Training

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How To Cyte: Fauzan, A., Prihandono, T., & Bektiarso, S. (2024). The Influence of Learning Models Inquiry Training Regarding the Learning Outcomes of Class Ix Students at SMP Negeri 5 Sumenep. *International Journal of Education, Information Technology, and Others*, *7*(3), 95-101. https://doi.org/10.5281/zenodo.13623951

INTRODUCTION

Science learning becomes meaningful when the learning process is easy for students to understand. Students' understanding of science concepts and natural phenomena can be observed in the environment through an experimental process. Through experiments, students can have a scientific attitude within themselves on an ongoing basis. A scientific attitude must be cultivated from the start. When students carry out the process *inquiry*, students are required to be honest, open and have a sense of responsibility. The instillation of these values must be understood and become the basis for students' behavior in everyday life (Santiasih et al. 2013).

The learning model is the entire series of presentation of teaching material which includes all aspects before and after learning carried out by the teacher as well as all related facilities that are used directly in the teaching and learning process. This means that the learning model provides a framework and direction for teachers to teach. Widana (2014) stated that there were differences in understanding of concepts and scientific attitudes between students in the model *inquiry training* with conventional learning models. Through the learning process *inquiry training* This is expected to have a good influence on student learning outcomes. Learning outcomes are the abilities possessed by students after following the learning process, both cognitive, affective and psychomotor

(Kunandar 2013). This is supported by the opinion of Arikunto (2013) that there are three domains of learning outcomes, namely the cognitive, affective and psychomotor domains. In this study, the learning outcomes measured were students' cognitive learning outcomes with essay test questions. Increased learning outcomes after implementing learning with models *inquiry training* can be known by using *software SPSS.*

Based on the results of observations made by researchers at SMP Negeri 5 Sumenep with interviews with science subject teachers, they said that the science learning outcomes obtained were still low or still below the predetermined completion score. The minimum completion criteria (KKM) set is 70. Based on data on student learning outcomes in the 2021/202 academic year, it is known that only 56.53% of students completed and in 2022/2023 only 56.54% of students completed. This shows that students' science learning outcomes are still low. From the results of a questionnaire given to 61 class IX students, data was obtained that 52 students said that science was difficult and not interesting, 7 students said that science lessons were ordinary. Meanwhile, 2 students said that scienceeasy and fun. The reason students say that science is difficult and less interesting is because science cannot be separated from formulas that must be memorized. But there are also students who have difficulty understanding the material and questions, so that if the questions are changed to another form then the students will not be able to do it. Therefore, we need a learning package that is capable of improving students' science learning outcomes. One of the innovative learning models that is considered appropriate to use is the learning model *inquiry training*.

Learning model *inquiry training* directs students to discover knowledge through the process of scientific work. Scientific work habits are expected to foster habits of thinking and acting to reflect students' mastery of scientific knowledge, skills and attitudes. Learning model *inquiry training* designed to bring students directly into the scientific process through exercises that can design the scientific process into a short period of time (Taneo et al. 2007). Based on the explanation above, implement the learning model *inquiry training* hope to be able to solve the problem. one of which is the Electrical Circuit material.

The learning outcomes are a number of experiences gained by students covering the cognitive, affective and psychomotor domains. Learning is not only about mastering the theoretical concepts of a subject, but also about mastering habits, perceptions, interests, talents, skills and ideals and what is expected. Learning outcomes are a student's level of success in learning lessons at school which will be expressed as a value obtained through tests on the subject matter (Wahyuni et al. 2020). Based on the explanation of learning problems, it is necessary to have an appropriate learning model, in order to improve student learning outcomes in science material. So this research discusses the influence of the inquiry training learning model on the learning outcomes of class IX students at SMP Negeri 5 Sumenep.

RESEARCH METHOD

The research was conducted at SMP Negeri 5 Sumenep which is located at Jalan Yos Sudarso 215 Sumenep. The research was carried out at 13 s.d. May 18

2024 in class IX A and class IX C for the 2023/2024 academic year. Research methods used *as if experimental*. According to Sugiyono (2016, p. 72) the experimental research method is a research method used to look for the influence of something being treated on another under conditions that can be controlled. Quasi-experiment using all subjects in *intact group* to be given *treatment*, rather than using subjects taken at random. In this research, the most dominant variable is learning outcomes. This method is used to see the effect of the treatment given in the experiment on the control class. This research aims to see the influence of learning models *inquiry training* on student learning outcomes in Electric Circuit material. The research approach is quantitative research. Quantitative research methods according to Sugiyono (2018, p. 14) are research methods that are based on the philosophy of positivism by relying on empiricism which is used to research certain populations or samples, sampling techniques are generally carried out using *random*, data collection uses objective research instruments, and data analysis is quantitative, with the aim of testing predetermined hypotheses.

The research design applied is *nonequivalent control grup design*. This design is used because it suits the conditions of the research sample, where the sample studied has a comparison group or control group and an experimental group. The experimental group and control group have been determined and cannot be chosen randomly (Sugiyono, 2021). One group is called the experimental class and the other group is called the control class. Both classes receive the same material, namely Electrical Circuits. In the experimental class, material is taught using the help of a learning model *inquiry training*. Meanwhile, in the control class, the material is delivered using conventional media. Furthermore, at the end of the research both classes were given summative questions.

The data that has been obtained from research results using test instruments is then analyzed to analyze the influence of the learning model *inquiry training* on the learning outcomes obtained by students. The analysis is divided into 2 parts, namely analysis of learning outcomes tests with a normality test to analyze whether the distribution of the sample is normally distributed or not (Kadir, 2015, p. 143). The normality test is used for preliminary analysis and is a prerequisite for hypothesis testing. Normality testing uses techniques *Kolmogorov Smirnov (One Sample K-S)* with the help of the SPSS 26 program. If the probability is > 0.05 then H_0 accepted, the population distribution is not normal, if probability ≤ 0.05 then H_0 rejected (Kadir, 2015, p.156). Next, a homogeneity test is carried out to determine whether the data population variance between the two groups has the same or different variants. This test is carried out as a prerequisite test in hypothesis testing. The criteria for homogeneity testing are if the significance value is <0.05 then the variance of the data groups is not the same, if the significance value is >0.05 then the variance of the data groups is the same (Priyatno, 2017, pp.101-106).

To test the hypothesis with the "t" test. The "t" test is a statistical test used to test the truth or falsity of the null hypothesis which states that between two sample means taken randomly from the same population, there is no significant difference (Sudijono, 2015, p. 278). By drawing conclusions about the hypothesis test output based on the following test criteria: if Sig.$_2$.tailed $\leq$ 0,05 H_0 rejected

and H_1 accepted, if Sig.$_2$.tailed > 0,05 H_0 accepted and H_1 rejected (Kadir, 2015, p.302). The formulation of the statistical hypothesis for research hypothesis testing is if Sig.$_2$.tailed ≤ 0,05, H_0 rejected and H_1 accepted means that there is an influence on the use of learning models *inquiry training* on student learning outcomes in elements and compounds. If Sig.$_2$.tailed > 0,05 H_0 accepted and H_1 rejected means that there is no influence on the use of learning models *inquiry training* on student learning outcomes in Electric Circuit material.

RESEARCH RESULTS AND DISCUSSION

Summative value data was tested for normality to determine whether the research data obtained was normally distributed or not. Normality testing is carried out using the method *Kolmogorov-Smirnov*. Testing was carried out at a significance level of 0.05. If value Asymp. Sig. (2-tailed) in the Kolmogorov-Smirnov Table is greater than 0.05, then the research data is normally distributed. If value Asymp. Sig. (2-tailed) in Table *Kolmogorov-Smirnov* smaller than 0.05, the research data is not normally distributed. The results of the summative value normality test for the experimental class and control class can be seen in Table 1 below:

Table 1

One-Sample Kolmogorov-Smirnov Test

		Inquiry Training	Conventional
N		31	30
Normal Parameters[a,b]	Mean	64.32	58.67
	Std. Deviation	13.646	12.984
Most Extreme Differences	Absolute	.145	.126
	Positive	.145	.126
	Negative	-.078	-.075
Test Statistic		.145	.126
Asymp. Sig. (2-tailed)		.098[c]	.200[c,d]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

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

Based on table 1, it can be seen that the summative value data in the experimental class was found to be significant 0.098 > 0.05 so that the experimental class value data was normally distributed. The summative value data in the control class was found to be significant 0.200 > 0.05 so that the summative value data for the control class was normally distributed.

Next, a homogeneity test was carried out to determine whether the variance of the data population between the two groups had the same or different variants. The following data was obtained:

Table 2. Test of Homogeneity of Variances

		Levene Statistic	df1	df2	Say.
Learning outcomes	Based on Mean	.173	1	59	.679
	Based on Median	.112	1	59	.740
	Based on Median and with adjusted df	.112	1	58.720	.740
	Based on trimmed mean	.181	1	59	.672

Table 3. ANOVA

Learning outcomes

	Sum of Squares	df	Mean Square	F	Say.
Between Groups	487.707	1	487.707	2.747	.103
Within Groups	10475.441	59	177.550		
Total	10963.148	60			

Based on table 2.1, it is known that student learning outcomes data for the control and experimental classes in the homogeneity test obtained a significant value of 0.679, greater than 0.05, so it can be concluded that student learning outcomes data for the control and experimental classes are homogeneous.

To test the hypothesis, the data was tested using the "t" test to obtain the following data:

Table 4

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Say.
1	(Constant)	-16.115	17.302		-.931	.355
	Inquiry Training	.759	.276	.339	2.747	.008

a. Dependent Variable: Konvensional

Based on table 3, it can be seen that the Sig.2 tailed data value of the experimental class is 0.008 < 0.05 so that H_0 rejected, so it can be concluded that there is a significant difference in the average learning outcomes between the

experimental and control classes. This is because different treatments were given to the experimental and control classes.

The results of this research are in line with previous research conducted by Yovita Angol (2023) "The Influence of the Inquiry Training Learning Model on Class X Student Learning Outcomes at Sma Negeri 3 Borong", showing that there is a significant influence on the application of learning *inquiry training* on student learning outcomes." Ratni Sirait (2012) "The Influence of the Inquiry Training Learning Model on Student Learning Outcomes in the Main Material of Business and Energy Class VIII Mts N-3 Medan" shows that there is an influence of using the inquiry training learning model on the main material of business and energy in class VIII semester I MTs N 3 Medan T.P 2010/2011. The results of the research above provide an illustration of the application of the learning model *inquiry training* very good and appropriate when applied in the learning process. Learning using models *inquiry training* teachers must be trained and familiarized with it to be applied in teaching and learning activities, especially science subjects. Increasing student learning outcomes can also be achieved due to effective learning using interesting and fun learning models (Gu et al. 2019).

CONCLUSION

Based on the results of the research and discussion, it can be concluded that there is a significant influence on the application of learning *inquiry training* on student learning outcomes, this can be seen from the better student learning outcomes between the control class treated with conventional methods and the experimental class treated using the learning model *inquiry training.*

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