

**EFFECTS OF INQUIRY-BASED LEARNING MODEL ON STUDENT'S LEARNING
OUTCOMES IN TOPIC OF DYNAMIC ELECTRICITY IN GRADE X SMA N 2
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Riris Mariani Rumahorbo (Reg. Number 409322023)

ABSTRACT

This study aims to constructs learning model by using inquiry-based learning model in topic dynamic electricity in secondary high school grade X and observe its effect on improving cognitive learning outcomes of students

The type of research is experimental research. The population is all students of class X SMA Negeri 2 Balige Academic Year 2012/2013, consist of 7 classes. The research done in May 2013. Two classes selected randomly as sample. One class as experiment class and another class as control class. Experiment class using Inquiry-based learning model and control class using conventional learning. Research data collected through student's learning outcomes test in multiple choice. The test given twice, before and after treatment (pretest and posttest). To test the hypothesis using test t, but previously must tested the normality and homogeneity of the data.

From the analysis of posttest data in experiment class, for concept mastery obtained the average score is 83.59 with standard deviation 7.95, whereas the posttest data in control class obtained that the average score is 75.67 with standard deviation is 10.73. From t-test for learning outcomes of pretest in both class obtained $t_{\text{count}} < t_{\text{table}}$, where $t_{\text{count}} = 0.13$ and $t_{\text{table}} = 1.67$. It means that the initial ability both of class is same. In the testing of hypothesis for posttest, the criteria is: H_0 is accepted if $t_{\text{count}} < t_{\text{table}}$ and H_0 is rejected if t_{count} has another score, where t_{table} obtained from list of distribution t. From the calculation of t-test for learning outcomes using $\alpha = 0.05$, obtained $t_{\text{count}} = 3.79$ and $t_{\text{table}} = 1.67$. This result show that the student's learning outcomes who treated by inquiry-based learning model is better significantly than using conventional learning. Inquiry-based learning model makes students more active, more enjoyable learning atmosphere, and the learning model very supportive in increasing in the student's learning outcomes.