

The Effect of Guided Discovery Learning Model on Student's Learning Outcomes of Temperature and Heat in Class X SMA Negeri 4 Medan Academic Year 2014/2015

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ABSTRACT

The objectives of this research are: (1) To know the student's learning outcomes in physics subject after taught by Guided Discovery Learning Model. (2) To know the student's learning outcomes in physics subject after taught by Conventional Learning. (3) To know the effect of Guided Discovery Learning Model on student's learning outcomes of Temperature and Heat in Class X SMA Negeri 4 Medan Academic year 2014/2015

The research method was quasi experimental. The populations were all X IPA grade students in semester II that consist of 11 classes SMA Negeri 4 Medan. The samples of this research conduct two classes and consist of 96 students, 48 from experiment class and 48 from control class and define by random cluster sampling.

The results that were obtained: pre-test mean value of experiment class was 56.85 and 56.70 for control class and then post-test mean value of the experiment class was 80.51 and 73.66 was the mean value for control class. Standard deviation in pre-test were 9.88 in experiment class and 9.98 in control class and standard deviation in post-test for two classes were 10.18 and 9.45 . Normality of the test result from the both samples was normal and homogenous. In the testing of hypothesis for pre-test, the criteria is: H_0 is accepted if $t_{count} < t_{table}$ and H_0 is rejected if t_{count} has another score, where t_{table} obtained from list of distribution t. From the calculation of test t for concept mastery using $\alpha = 0.05$, obtained $t_{count} = 0.07$, where $t_{table} = 1.98$. It means, experiment class and control class have same ability. And for post-test, the criteria is : H_a is accepted if $t_{count} > t_{table}$ and is rejected if t_{count} has another score. From the calculation of t-test one side for $\alpha = 0.05$, obtained $t_{count} = 3.42$, where $t_{table} = 1.98$. So, there was the effect of Guided Discovery Learning Model on Student's Learning of Guided Discovery Learning Model on student's learning outcomes of Temperature and Heat in Class X SMA Negeri 4 Medan Academic year 2014/2015. Based on observation that done by observers with using observation sheet of student activity, in experimental class have good category, while in the control class have enough category. So, can be concluded that activity of students in experiment class more active than control class.