

**THE EFFECT OF COOPERATIVE LEARNING MODEL TYPE GROUP
INVESTIGATION TOWARD LEARNING OUTCOMES ON
CIRCULAR MOTION AT X SMA NEGERI 18 MEDAN
ACADEMIC YEAR 2018/2019**

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ABSTRACT

The research aims to determine effect of applying cooperative learning type Group Investigation model toward student learning outcomes on subject matter work and energy at X SMA Negeri 18 Medan Academic Year 2018/2019.

This research method is quasi experiment with design of two group pretest and posttest. The research population of all class X MIPA students, consisting of six classes. The research sample consisted of two classes taken with class random sampling technique, that is class X MIPA 3 as experiment and class X MIPA 6 as control class, each class were 35 students. And the research was obtained using objective test instrument of 20 questions.

The result of data analysis obtained the average value of pretest of experiment class and control class is 39.86 and 40.85. Then testing normality is normal distributed and homogeneity homogeneous. Then the hypothesis is tested and results are obtained $t_{count} < t_{table}$, so can be said that the initial ability of students is the same. After that, different treatments were given to the experimental class using cooperative learning type Group Investigation and control class with conventional learning. After the learning is complete, the posttest is average in experimental class results are 73.00 with standard deviation of 10.79 and the average in control class is 52.00 with standard deviation of 10.01. The results of hypothesis using t test $t_{count} = 9.2$ while $t_{table} = 1.67$ because $t_{count} > t_{table}$ ($9.2 > 1.67$) then H_0 is rejected. Thus can be concluded there are significant effect differences from the application of cooperative learning type Group Investigation model toward student learning outcomes.

Keywords: Group Investigation, Learning Outcomes, Circular Motion