

THE IMPLEMENTATION OF COOPERATIVE LEARNING MODEL TYPE GROUP INVESTIGATION USING BRAINSTORMING METHOD TO IMPROVE STUDENT LEARNING OUTCOMES ON WAVE MATERIALS AT XI SMA N 1 TEBING TINGGI A.Y 2018/2019

Novyta Tiomora Sitanggang (NIM : 4153322016)

ABSTRACT

This research objective are to know the effectiveness of the implementation of cooperative learning model type *group investigation* using brainstorming methods to improve student learning outcomes in sound waves material. This research method is quasi-experiment with the design of *two group* pretest and posttest. The Population of this study were all class XI SMA N 1 Tebing Tinggi A.Y 2018/2019. The study sample was taken by *class random sampling* technique consisting of two classes, namely the experimental class applied cooperative learning model type *group investigation* using brainstorming method, and the control class applied conventional learning models, each class as many as 36 students. This research data was obtained by using instruments in the form of 10 questions essay tests and activity observations. The results of the data analysis obtained the average value of the experimental class pretest was 30.18 with a standard deviation of 7.76 and the average value of the control class pretest was 33.70 with a standard deviation of 7.91. In the normality and homogeneity tests both classes were normally distributed and homogeneous. The pretest t test results obtained $t_{count} < t_{table} = 1.92 < 1.99$, then H_0 is accepted, meaning that both classes have the same initial ability. After being given different treatments, the posttest results were obtained with the results of the experimental class averages 68.61 with a standard deviation of 10.64 and a control class 61.75 with a standard deviation of 8.26. The results of the posttest t test were obtained $t_{count} > t_{table} = 2.94 > 1.99$ so that H_a is accepted, then the implementation of cooperative learning model type *group investigation* using brainstorming method can significantly improve student learning outcomes on sound waves topic at XI SMA N 1 Tebing Tinggi Academic Year 2018/2019.

Keywords : Cooperative Type *Group Investigation*, Brainstorming, Conventional, Learning Outcomes, Sound Waves

