

**THE EFFECT OF COOPERATIVE LEARNING MODEL STUDENT
TEAMS ACHIEVEMENT DIVISIONS (STAD) TYPE ON STUDENTS
LEARNING OUTCOMES IN TOPIC HARMONIC VIBRATION IN
CLASS X SMA N 1 TANJUNG MORAWA**

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ABSTRACT

This study aims 1) To know the results of class X students studying physics at the second semester sub harmonic motion A.Y. 2017/2018 material treated by using conventional learning 2) To determine the results of class X students studying physics at the second semester of the material sub motion A.Y 2017/2018 harmonic treated using cooperative learning model STAD 3) To know the difference due to the influence of cooperative learning model STAD and conventional learning model to the learning outcomes of students in sub harmonic motion of matter even semester class X SMA Negeri 1 Tanjung Morawa A.Y 2017/2018. This research type is quasi experiment. The population in this study is all students of class X SMA Negeri 1 Tanjung Morawa consisting of 2 parallel classes. The sample of this research there are two classes that class X MIA-3 as experiment class and X MIA-5 as control class where each number of student in class 31 people. The sampling technique is done by Cluster Random Sampling. Data collection tool in this research is multiple choice test. Before multiple choice test is given to students who want to be tested first test validated by two lecturers and one physics teacher. Hypothesis test using one party t test. The result of pretest value of experimental class is obtained an average value of 27.26 and pretest value of control class is got average value 30.00. The result of pretest of experiment class and control class is tested by using normality test and homogeneity test, it is obtained result that pretest grade value data experiments and control classes are normally distributed, homogeneous and the initial ability of both classes is the same. The study was conducted by giving two different treatments, the experimental class applied the Cooperative STAD type learning model and the control class using conventional learning. The result showed that the average value of posttest experimental class was 72.09 higher than the control class average score of 62.9. So it can be concluded that there is a significant influence on student physics learning outcomes by using cooperative STAD type learning model on student physics learning outcomes on Harmonic Vibration materials in class X semester II SMA Negeri 1 Tanjung Morawa.

Keywords: *Cooperative learning type STAD, Learning Outcomes, Learning Activity, Harmonic Vibration*