

**EFFECTIVENESS OF JIGSAW COOPERATIVE LEARNING MODEL
IN HEAT AND TEMPERATURE ON STUDENT'S LEARNING
OUTCOMES GRADE X SMA SWASTA
MUHAMMADIYAH 1 MEDAN IN
ACADEMIC YEAR 2011/2012**

Febriani Hastini Nst (ID. Number: 081244210011)

ABSTRACT

The purpose of this research was to find out the effectiveness of jigsaw cooperative learning model in heat and temperature on student's learning outcomes grade X SMA Swasta Muhammadiyah 1 Medan in Academic Year 2011/2012.

The research method was quasi experimental. The population were seventy (70) students grade X semester II SMA Swasta Muhammadiyah 1 Medan and all of the population became sample of this research. The sample were divided into two classes, experimental and control class.

The results that were obtained: (1) The post-test mean value of the experimental class was 69.47 and 56.56 was the mean value for control class. Standard deviation for two classes were 13.65 and 18.65. Normality of the test result from the both samples was normal but not homogenous. Therefore t'-test was conducted on this research. The t_{count} was 3.29 with -2.03 lower limit and 2.03 upper limit. The post-test was not fulfill the limit requirement of acceptance area $-2.03 < t_{count} < 2.03$. Hence, alternative hypothesis (H_a) was accepted and null hypothesis (H_o) was rejected. (2) Furthermore, the mean value of student's learning outcomes in experimental class from affective and psychomotor domain were 72.5 and 71.3 while in control class were 69.4 and 69.4. They were in good category. It was concluded that there were no effect difference of jigsaw and direct instruction learning model for affective and psychomotor domain on student's learning outcomes in heat and temperature. (3) In addition, the mean value of instrument's sensitivity index in experimental class was 0.276 that was in sensitive category while in control class was 0.187 which meant the requirement of good sensitivity index of instrument was not fulfillment. The percentage result of class learning mastery in experimental class was 86.1 % that was categorized passed meanwhile in control class was 58.8 % that was categorized not passed. Then, the mean value of activities observation result in experimental class was 74.38 while in control class was 70.63 that were included in good category. It was concluded that jigsaw cooperative learning model is more effective than direct instruction learning model. Therefore, the effectiveness of jigsaw cooperative learning model was high on the student's learning outcomes.