

**THE EFFECT OF PROBLEM BASED LEARNING MODEL AND
MOTIVATION TO LEARN PHYSICS ON STUDENT'S LEARNING
OUTCOMES OF HEAT AND TEMPERATURE TOPIC
IN CLASS X SMA NEGERI 1 TEBING TINGGI
ACADEMIC YEAR 2014/2015**

AGNES MAWAR YUNITA SIHOMBING (4113121004)

ABSTRACT

The objectives of this research are: (1) To know difference of Problem based Learning model and Direct Instruction model to students learning outcomes in Heat and Temperature in SMA N 1 Tebing Tinggi class X Academic Year 2014/2015. (2) To determine the differences of student's that have high motivation and low motivation in the subject matter Heat and Temperature using Problem based Learning Model and Direct Instruction in Class X SMA N 1 Tebing Tinggi, Academic Year 2014/2015 (3) To know the interaction between Problem based Learning model and motivation to learn physics.

The type of research was quasi experiment with the population all of student in class X of Science Program even semester in SMA N 1 Tebing Tinggi which consist of 7 classes. Sample of this research was obtained by technique cluster random sampling. The sample is X IPA 4 as the experiment class and X IPA 5 as the control class. Experiment class taught by Problem Based Learning model and control class taught by direct instruction. The research instrument has 5 questions in essay test, the instrument tested validated. The hypothesis testing uses ANOVA 2x2 and Correlation test with SPSS 17.0 software.

Based on result and data analyze, the conclusion are: 1. There is different of Problem based Learning model and Direct Instruction model to students learning outcomes. 2. There is different of student's that have high motivation and low motivation in Problem based Learning Model and Direct Instruction. 3 There is interaction between Problem based Learning model and motivation to learn physics.

Key word: Problem based Learning, Motivation, Student Learning Outcomes