

**THE COMPARISON OF STUDENTS' LEARNING OUTCOMES ON THE TOPIC  
OF LINEAR EQUATION IN ONE VARIABLE BY USING PROBLEM – BASED  
LEARNING (PBL) MODEL AND STUDENT TEAMS ACHIEVEMENT  
DIVISION (STAD) IN GRADE VII SMP NEGERI 28 MEDAN**

**Widia Shopa (ID 409312014)**

**ABSTRACT**

This research is quasi-experiment. The purpose of this research is to know whether students' mathematics learning outcomes which taught by using problem – based learning model higher than mathematics learning outcomes of students which taught by using student teams achievement division in grade VII SMP Negeri 28 Medan.

The population of this research is students of SMP Negeri 28 Medan, whereas the sample consists of 2 classes, namely, VII - 1 as Experiment Class I consists of 32 students and VII - 2 as Experiment Class II consists of 31 students. Experiment class I used Problem Based Learning (PBL) and Experiment Class II used Student Teams Achievement Division (STAD). Collecting data technique of this research is students' learning outcomes test given in the end of learning either in Experiment Class I or Experiment Class II. The type of this test is objective test.

Before doing hypothesis test, the normality and the homogeneity test should be done. The result of those tests, sample was taken from normal distributed and homogeneous population. The data analysis of experimental class by using t-test with significance level  $\alpha = 0.05$ , it was obtained that  $t_{\text{calculation}} > t_{\text{table}}$  then  $H_0$  is rejected and  $H_a$  is accepted.

It can be concluded that students' mathematics learning outcomes which taught by using problem – based learning model higher than mathematics learning outcomes of students which taught by using student teams achievement division in grade VII SMP Negeri 28 Medan.

The research that has been done, researcher suggested that Problem based learning can be as consideration to teachers in enhancing senior high school students' mathematical representation ability. Teacher intends to use problem based learning, needed preparation and used time effectively in its

implementation. The result and instrument of this research can be used as consideration to implement problem based learning in a different class grades and subjects for the future researchers.



THE  
*Character Building*  
UNIVERSITY