

**THE DIFFERENCE OF STUDENT'S MATHEMATICAL COMMUNICATION
ABILITY BY USING COOPERATIVE LEARNING *THINK PAIR SHARE* (TPS)
TYPE AND PROBLEMBASED LEARNING**

Sarah Violita Sirait (ID. 4133311020)

ABSTRACT

The research is aimed to find out there was a difference of student's mathematical communication ability in cooperative learning Think – Pair – Share (TPS) type with Problem Based Learning. The type of this research was quasi experiment.

The population of this research was all students at SMP Budi Murni 2 Medan. The sample was two classes which each consist of 37 students, VIII A as experimental class I which taught by cooperative learning model type TPS and VIII B as experimental class II which taught by Problem Based Learning. The sample was taken by random sampling. Collecting data technique of this research was mathematical communication ability test that was given in the end of learning either in experimental class I or experimental class II. The type of this test was essay test.

Technique of analyzing data is consisted of normality, homogeneity, and hypothesis test. Based on normality and homogeneity test, the data was taken from normal distribution and homogeneous variance. From the data analysis of each of experimental class were obtained that the average of posttest score in PBL classroom is higher than in TPS classroom. From the data analysis of posttest score by using t-test with significance level $= 0.05$, then it was obtained that $t_{\text{calculated}} = 3,96$ and $t_{\text{table}} = 1,666$. Consequently $t_{\text{calculated}} > t_{\text{table}}$, then H_0 is rejected and H_a is accepted.

So, it can be concluded that there is difference of student's mathematical communication ability who taught by cooperative learning TPS type with PBL. Based on research that has been done, mathematics teachers are suggested to use cooperative learning model type TPS or PBL as learning model alternative in improving student's mathematical communication ability.

Keyword: mathematical communication ability, TPS, PBL