

**THE DIFFERENCE OF STUDENTS MATHEMATICAL COMMUNICATION  
ABILITY TAUGHT BY COOPERATIVE LEARNING MODEL TGT  
AND STAD TYPES AT SMP ASY-SYAFI'YAH  
INTERNATIONAL MEDAN**

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**ABSTRACT**

The research is aimed to find out if there is a difference of students' mathematical communication ability taught by Cooperative Learning Model TGT and STAD types on topic statistics. The type of this research is Quasi Experiment Research which was conducted in SMP Asy-Syafi'iyah International Medan. The population of this research is all students grade VII at SMP Asy-Syafi'iyah International Medan. The sampling technique applied was random sampling. The experiment class I that is chosen VII-B and the experiment class II that is chosen VII-C, each of class consist of 34 students. The instrument used to measure the students' mathematical communication ability was post-test. The data analysis technique was t-test by using SPSS 24.0 for Windows at the level of significance  $\alpha = 5\%$ .

Before doing the hypothesis test, it would be done normality and homogeneity test by using SPSS 24.0. From the result of those tests, sample was taken from normal distributed and homogeneous variance. From the data analysis of each of experimental class were obtained that the average score of posttest in experiment class I is 57.27 and the average score of posttest in experiment class II is 53.92. Then the test of hypothesis by using Independent sample t-test which obtained Sig. (1-tailed) = 0.42. Because Sig. (1-tailed)  $0.042 < 0.05$  then  $H_0$  is rejected and accept  $H_1$ . So, it can be concluded that the students' mathematical communication ability taught by cooperative learning Team Games Tournament (TGT) type is better than the students' mathematical communication ability taught by cooperative learning Student Team Achievement Division (STAD) type.

Based on the research that has been done, mathematics teachers are suggested to use cooperative model TGT type as learning model alternative in improving students' mathematical communication ability.

**Keywords:** *TGT, STAD, Mathematical Communication Ability*