

**THE DIFFERENCE OF STUDENTS' MATHEMATICAL COMMUNICATION ABILITY
TAUGHT BY COOPERATIVE LEARNING TEAM GAMES TOURNAMENT
TYPE WITH LEARNING CYCLE MODEL INTEGRATED WITH
CHARACTER EDUCATION AT SMA NEGERI 1 BERASTAGI**

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ABSTRACT

The aim of this research was to know whether student's mathematical communication ability by using cooperative learning model TGT type was better than Learning Cycle Model. The research method was quasi-experiment. The population was all students at SMA Negeri 1 Berastagi. The sample of this research took two classes and consist of 32 students for each class, X PIA 7 as experimental class I which used cooperative learning model TGT type and X PIA 6 as experimental class II which used Learning Cycle Model.

This research using post-test only. From the result of conditional test of data, all of data from posttest are normal distribution and homogeneous. Data was analyzed by using descriptive statistic analysis and inferential analysis.

The result of the research shows that the means score are 94,5 in experiment class I and 92,7 in experiment class II. It can descriptively be seen that the means score of posttest the students' mathematical communication ability by using cooperative learning model TGT type is better than Learning Cycle Model. Hypothesis analysis was obtained that $t_{\text{calculated}} > t_{\text{table}} = 2.168 > 1.669$ with $\alpha = 0.05$ so consequently H_a is accepted. It means that the students' mathematical communication ability by using cooperative learning model Teams Games Tournament type is better than Learning Cycle Model.

Keyword: TGT, Leaning Cycle, mathematical communication ability