

## ABSTRACT

**FRESTI ANGGRAENI**, Comparison of Mathematical Communication Ability Students Learning Using the Cooperative Model Type Numbered Heads Together (NHT) and Problem Posing Model at SMPN Kecamatan Rawalumbu. Essay. Jakarta: Mathematics Education Program, Faculty of Mathematics and Natural Sciences, Jakarta State University, 2017.

The purpose of this study is to know that the mathematical communication ability of students who learn to use cooperative model type Numbered Heads Together (NHT) better than students who learn to use Problem Posing model. This research was conducted at a SMPN located in District Rawalumbu in class VII even semester of academic year 2016/2017 with the subject matter of rectangle.

This research uses quasi experimental research method with sampling using two stage sampling technique. The first stage using random sampling is choosing one of the four SMPN located in the district Rawalumbu randomly. While the second stage using cluster random sampling is choosing two classes randomly from the three classes that have been tested prerequisite analysis of the data before the treatment is concluded third class normal distribution, have the same variance, and have the average equation which then set as experimental class I and class Experiment II. Instrument used in this research is 4 item of final test of mathematical communication ability on rectangular subject matter in the form of description. Before being used and given to the experimental class I and class II, as a final test experiment, it has been tested several kinds of instrument validity is content validity, construct validity and empirical validity. The research instrument has also been tested its reliability by using Alpha Cronbach formula and obtained reliability coefficient of 0.806 which is in high category.

After being given the treatment, both classes of experiments have been conducted data analysis prerequisite test and obtained the conclusion that both the experimental class is experimental class I and class II experiment comes from a normal distributed population and have the same variance. Since the two classes are normally distributed and have the same variance, the hypothesis testing of the study is performed using t-test statistic with the same variance requirement. The test-t statistic is performed using the significance level  $\alpha = 0,05$ . Based on the calculation results, obtained value  $t_{\text{count}} = 2,156$  and  $t_{\text{table}} = 1,668$ . Therefore  $t_{\text{count}} > t_{\text{table}}$  hence obtained decision deny  $H_0$  and concluded that mathematical communication ability of student who learn to use model cooperative type Numbered Heads Together (NHT) better than student learn to use Problem Posing model in SMPN Kecamatan Rawalumbu.

Keywords: Numbered Heads Together (NHT) Cooperative Model, Problem Posing Model, Mathematical Communication Skill.