## ABSTRACT

## Tika Lestari, "The Influence of Mathematics Learning with Metacognitive Approach to Improving Mathematics Problem Solving and Self Regulated Learning for High School Students".

This research is an experiment focused on improving students' math problem solving skills and self regulated learning with metacognitive approach in mathematics learning. The background of this research problem is the ability of problem solving of low mathematics so that it is needed alternative of learning that can develop problem solving ability of student mathematics. Learning with a metacognitive approach is a learning that instills awareness of how to design, monitor, and control what they know; What it takes to do, focus on learning activities; Help and guide when students are having trouble; And assist students in developing their self-concept while learning math. The purpose of this research is to know whether the improvement of problem solving ability of students mathematics learning with metacognitive approach is higher than students who received expository learning and obtain information about self regulated learning of students on learning mathematics with metacognitive approach. The population of this study were students of class XI SMA Pasundan 1 Bandung academic year 2016/2017 with a sample of two randomly selected class XI B1 students as experimental class and students of class XI B4 as a control class. The research instrument used in the form of math problem solving test (pretest and posttest) and self regulated learning questionnaire. Data analysis was done by using SPSS 16.0 for windows program. Based on data analysis, the conclusion is that the improvement of problem solving ability of mathematics students who gain learning with metacognitive approach is higher than students who gain expository learning and Self Regulated Learning students who get Metacognitive approach is better than students who get expository learning.

**Keywords**: Metacognitive, Mathematical Problem Solving Abilities, Self Regulated Learning