

## ***ABSTRACT***

**Rina Siti Nurjanah (2018), “The Effect of Discovery Learning Model on Increasing Mathematical Problem Solving Ability and Self Concept of High School Students”**

This research is an experiment focused on improving students' mathematical Problem Solving Ability and Self Concept with Discovery Learning Model in mathematics learning. The problem behind this research is the low mathematical problem solving ability so that alternative learning is needed that can develop students' mathematical problem solving ability. Learning with the use of the Discovery Learning Model wants to change passive learning conditions to be active and creative. Changing the conventional mode, students only receive information as a whole from the teacher to discovery mode students find information themselves, so that students are expected to have new skills and knowledge from what they have met. The purpose of this study is 1) To determine whether there is an increase in mathematical problem solving ability of students who have higher Discovery Learning Models than students who obtain conventional learning, 2) To find out whether Self Concept students who obtain the Discovery Learning Model are better than students who obtain conventional learning, 3) To determine whether there is a positive correlation between mathematical problem solving ability and Self Concept of students who received a model of Discovery Learning. The population of this study were the tenth grade students of Parongpong 1 Public High School 2018/2019 school year with a sample of two randomly selected classes, namely X MIA 1 class students as the experimental class and X MIA 3 class students as the control class. The research instrument used was a Mathematical Problem Solving Ability test (pretest and posttest) and the Self Concept scale was given simultaneously at posttest. Data analysis is done using the SPSS 20.0 for Windows program. Based on the analysis of data research, conclusion that the increase in mathematical problem solving ability and Self Concept of students who received the Model Discovery Learning is better than conventional learning and there is a positive correlation between mathematical problem-solving ability and Self Concept students who obtain the Discovery Learning Model.

**Keywords:** Discovery Learning, Problem Solving Ability, and Self Concept.