# *ABSTRACT*

DHEA RAHMANIA PUTERI. *Improving the Ability to Understand Mathematical Concepts and Self-Regulated Learning for High School Students through The Discovery Learning* Model *Assisted by Video Learning.*

*Mathematics is a science that has a very important role in human life. Mathematics is a subject taught at every level of education in Indonesia. But students tend to be more difficult and passive in learning mathematics. There are so many causes of students having difficulty in learning mathematics, so there is a need for mathematical abilities, especially the ability to understand concepts and Self-Regulated Learning. The purpose of this study is to determine the improvement of concept understanding ability, the achievement of Self-Regulated Learning and the correlation of concept understanding ability with Self-Regulated Learning. The method used is the quasi-experiment method. The subject of this study was one of the class X high schools in the city of Bandung as many as two classes, including 35 control class students who were given the model treatment obtained the Discovery Learning model and 35 students as an experimental class who were given the model treatment obtained the Discovery Learning model assisted by video learning. The instruments used are description type and attitude scale using the Likert scale. The results of the study obtained conclusions: 1) increased ability to understand mathematical concepts of students who obtained the Discovery Learning model assisted by video learning were higher than students who obtained the Discovery Learning model, 2) Self-Regulated Learning students who obtained the Discovery Learning model assisted by video learning were better than students who obtained the model Discovery Learning, 3) there is no correlation between the appearance of understanding mathematical concepts and self-regulated learning of students who obtained the Discovery Learning model assisted by video learning.*

*Keywords: Concept Understanding, Self-Regulated Learning, Discovery Learning Model, Learning Videos*