

ABSTRACT

Fadillah Rizqi. (2021). *Analysis of High School Students' Mathematical Reasoning Ability and Self-Concept in the Implementation of the Discovery Learning Model.*

In the cognitive aspect, one of the mathematical abilities that students must have is mathematical reasoning ability. In addition, in the affective aspect in mathematics learning students also need to have one attitude, namely self-concept. However, most of the category in students' mathematical reasoning ability and self-concept are still low. Therefore, one alternative to solve these problems is apply the Discovery Learning model in mathematics learning which is expected to develop students' mathematical reasoning ability and self-concept become better. This research has the goal of: (1) describe how high school students' mathematical reasoning ability in the implementation of the Discovery Learning model; (2) describe how high school students' self-concept in the implementation of the Discovery Learning model; (3) describe the effectiveness of the Discovery Learning model for high school students' mathematical reasoning ability. This research is a literature study with a qualitative approach, where the source of data comes from various literature sources. The data collection techniques that used in this study are editing, organizing, and finding and the data analysis techniques that used in this study are inductive and interpretive analysis. The conclusions of this study are: (1) High school students' mathematical reasoning ability which the initial is low developed to be better in the implementation of the Discovery Learning model; (2) High school students' self-concept which the initial is low developed to be better in the implementation of the Discovery Learning model (3) The Discovery Learning model is effective for high school students' mathematical reasoning ability.

Keywords: *Mathematical Reasoning Ability, Self-concept, Discovery Learning*