ABSTRACT

Firdan Firdaus (2024). ***Ability to Understand Mathematical Concepts and Self-efficacy of High School Students through the Discovery Learning Model with a Wordwall-Assisted Scientific Approach***.

The objectives of this study are: 1) To determine the improvement of the ability to understand mathematical concepts of students who obtain learning through the Discovery Learning model with a scientific approach assisted by Wordwall is higher than that of students who obtain conventional learning models. 2) Knowing the Self-efficacy of students who obtained the Discovery Learning model with a scientific approach assisted by Wordwall was better than students who obtained the conventional learning model. 3) To find out that there is a correlation between the ability to understand mathematical concepts and the Self-efficacy of students who obtain the Discovery Learning model with a scientific approach assisted by Wordwall. The research method used is an experimental method with a Pretest-Posttest control group design. This research was conducted at SMA Negeri 17 Bandung with a research sample using 2 classes, namely class X-E as an experimental class using the Discovery Learning model with a scientific approach assisted by Wordwall and X-A as a control class using a conventional model. The instruments used include a test of understanding mathematical concepts with descriptions and Self-efficacy questionnaires. The results of the study show as follows: 1) The improvement in the ability to understand mathematical concepts of students who obtained the Discovery Learning model with the Scientific approach assisted by Wordwall was higher than that of students who obtained the Conventional model. 2) The Self-efficacy of students who obtained the Discovery Learning model with a Wordwall-assisted Scientific approach was better than that of students who obtained the Conventional model. 3) There is a correlation between the ability to understand mathematical concepts and the Self-efficacy of students who obtain the Discovery Learning model with a Wordwall-assisted Scientific approach.

Keywords: *Ability to Understand Mathematical Concepts, Self-efficacy, Discovery Learning, Scientific Approach, Wordwall.*