ABSTRACT

This research aims to: (1) find out the achievement of mathematical problem solving ability of students who use the Project-Based Learning model assisted by GeoGebra was better than students who study it using model Discovery Learning; (2) find out the enhancement of mathematical problem solving ability of students who using Project-Based Learning model assisted by GeoGebra was better than students who study it using the Discovery Learning model are reviewed from problem solving ability aspects; (3) find out Self-Regulated Learning of students who study using Project-Based Learning model assisted by GeoGebra was better than students who are study it using Discovery Learning model. The method used was a quasi experiment with a non equivalent comparison group design. The subject of research in one of the state Junior high School in Cimahi. The research object was taken from two classes randomly. The experiment class using the Project-Based Learning model assisted by Geogebra, while the control-class classes using the Discovery Learning model. The test instrument is a matter of description and self-regulated learning poll instrument. Data analysis is processed with Normality test, Homogenity test, Independent sample t-test dan Scheffe test using Microsoft Excel 2016, and SPSS Program 23.0 for Windows. Based on the results of the research, obtained: (1) achievement of mathematical problem solving skills of students who using Project-Based Learning model assisted by GeoGebra was better than students who study using Discovery model Learning (2) enhancement of mathematical problem solving ability of students who using Project-Based Learning model assisted by GeoGebra was better than students who study it using Discovery Learning model are reviewed from the Problem solving ability aspect; (3) Self-Regulated Learing of students who study using the Project-Based Learning model assisted by GeoGebra was are better than students who are learning study it using the Discovery Learning model.

Keywords: Mathematical Problem-Solving Ability, Project-Based Learning, Self-Regulated Learning, and GeoGebra Software