

ABSTRACT

Ayu Azhari Yuliani Utami. (2018). Improvement of Mathematical Reasoning Competence and Self-Regulated Learning of Junior High School Student through Project-Based Learning Model.

The underlying problem of this research is that students' mathematical reasoning ability in Indonesia is still low compared to other countries in Asia, so innovation in learning is needed that can develop the ability of mathematical reasoning. The purpose of this research are: 1) To know the improvement of mathematical reasoning ability of students who get the model of learning Project-Based Learning is better than students who get the conventional learning model; 2) To know Self-Regulated Learning students who acquired Project-Based Learning model is better than students who get conventional learning model; 3) To find out whether there is a relationship between students' mathematical reasoning abilities with Self Regulated Learning. This research is using experimental method. The research design used is Pretest-Posttest Control Group Design. The population in this study is all students of class VII SMP Negeri 1 Pasirjambu. The sample of this research is the students of class VIIH as the experimental class and the students of class VIIJ as the control class. The instrument used is the test of mathematical reasoning ability and Self Regulated Learning questionnaire. Processing and data analysis using two Independent Sample t-Test and Mann Whitney test with the help of Microsoft Excel software and SPSS 18.0 for windows software. The results showed that: 1) Improvement of students' mathematical reasoning ability using Project-Based Learning model is better than students using conventional learning model; 2) Self Regulated Learning students using Project-Based Learning model are better than those using conventional learning model; 3) There is no relationship between students' mathematical reasoning ability with Self Regulated Learning. Thus the model of Learning-Based Project Learning can be used as an alternative for teachers in implementing learning in the classroom.

Keywords: Project-Based Learning Model, Mathematical reasoning ability, Self-Regulated Learning