

ABSTRACT

IHKAM ISMAYADI. **Analysis of Students' Problem Solving Ability and Mathematical Representation Through Problem-Based Learning (PBL) Model**

The use of an effective learning model can provide an important role in the learning process. With the application of an effective learning model, it will basically have an influence on students' mathematical abilities. These mathematical abilities include mathematical problem solving abilities and also mathematical representation abilities. One approach that can develop problem solving skills and also mathematical representation abilities is the Problem Based Learning (PBL) model. The application of the model with a fun learning process, centered on students and their competencies, as well as providing flexibility for students to be active in learning to develop their abilities will make learning that is formed more meaningful. This study aims to determine: (1) students' mathematical problem solving abilities through Problem Based Learning (PBL) models; (2) knowing students' mathematical representation skills through Problem Based Learning (PBL) models; and (3) Knowing the correlation between self-efficacy and mathematical problem solving ability of students. The approach used in this research is a qualitative research approach. The type of research used is literature study. Sources of data in this study are divided into 2, namely; primary sources and secondary sources. Based on the analysis that has been done, the following conclusions are obtained; (1) the application of the Problem Based Learning (PBL) model has a good influence on mathematical problem solving abilities; (2) the application of the Problem Based Learning (PBL) model has a good influence on students' mathematical representation abilities; and (3) the correlation between mathematical problem solving ability and self-efficacy in students is in the high category and has a positive effect on each other.

Keywords: Problem Solving Ability, Students' Mathematical Representation Ability, model Problem Based Learning (PBL), end *self-efficacy*