

ABSTRACT

Siti Azizah Nurul Falah. Improving Mathematical Communication Skills and Self-Efficacy High School Students through Problem Based Learning (PBL) Learning Model with Constructivism Approach.

The ability of mathematical communication is needed by students in understanding mathematics. However, students' mathematical communication skills are still low. One of the causes is the problem of students' self-confidence is still low too, for that required self-efficacy. One of the alternative learning that can improve the ability of mathematical communication and self-efficacy is a model of Problem Based Learning (PBL) learning with Constructivism Approach. The purpose of this research is to know the improvement of mathematical communication ability of high school students through PBL learning model with constructivism approach better than those using PBL learning model and to know the increase of self-efficacy of high school students through PBL learning model with constructivism approach better than those using PBL learning model. The method used is experimental method. The population in this study are all students of class X SMA Negeri 1 Parongpong academic year 2016-2017. As the sample of the research is the students of class X IIS 3 as the experimental class and class X IIS 4 as the control class of SMA Negeri 1 Parongpong as much as two classes chosen randomly according to the class. The instrument used in this research is equation model and equation using Likert Scale model. The attitude scale contains statements about self-efficacy. The test was first tested in class XI IPS 3. Based on the test results, all test questions are feasible for research use, but there are additional questions and editorials at number five in order to make interpretation problems difficult. Data analysis was done by using t-test through SPSS 21.0 for Windows program by using Independent Sample t-Tes. Based on data analysis, the conclusion: Improving mathematical communication ability of high school students through PBL learning model with constructivism approach is better than using PBL learning model and increasing self-efficacy of high school students through PBL learning model with constructivism approach better than that Using the PBL learning model.

Keywords: Mathematical Communication, Self-Efficacy, Problem Based Learning (PBL), Constructivism Approach.