ABSTRACT

Muhammad Zakaria Permana. (2018), Increased Mathematical Problem Solving Ability and Self-efficacy of Junior High School Students through the Realistic Mathematics Education (RME) approach.

This study aims to determine the improvement of mathematical problem solving abilities and self-efficacy of junior high school students through the Realistic Mathemathics Education approach, as well as to determine the quality of improvement in mathematical problem solving abilities of students who obtain the Realistic Mathemathics Education approach. According to NCTM, one of the process skills that must be mastered by students through mathematics learning is problem solving. Bandura (1997) states that self-efficacy determines how many people will develop and how long they will survive against obstacles, the stronger one's self-efficacy will be the stronger the business. This study uses QUASI experimental methods. The research design used was the design of a pretestposttest control group involving two groups or two classes, namely the control class and the experimental class. In the experimental class using the Realistic Mathematics Education approach and in the control class using the Scientific approach. The population in this study were all 8th graders at SMP Negeri 1 Pasirjambu. The sample used in this study was grade 8 G and 8 H. The sample was chosen randomly using purposive sampling technique. Data collection techniques in this study were using two instruments, namely a written test of mathematical problem solving abilities and a questionnaire on self-efficacy. Tests of problem solving abilities were given twice, namely pretest and posttest. Processing and analysis of data in this study using the Mann Whitney test and two independent sample t-tests with the help of Microsoft Excel and SPSS 23.0 for Windows computer programs. The results of this study indicate that (1) the improvement of students' mathematical solving abilities who obtain the Realistic Mathematics Education approach is better than students who obtain the Scientific approach; (2) the increase in self-efficacy of students who obtained the Realistic Mathematics Education approach was no better than students who obtained the Scientific approach; (3) the quality of improving mathematical problem solving abilities of students who received Realistic Mathematics Education learning was better than students who received learning with the Scientific approach. Thus learning by using the Realistic Mathematics Education approach can be used as an alternative for teachers to use in learning in schools.

Keyword: Realistic Mathematics Education approach, Problem solving, Selfefficacy