

ABSTRACT

Rifani Suci Desiami (2025). *Improving Mathematical Problem Solving Ability and Self-efficacy of Junior High School Students through the Problem Based Learning Model Assisted by Interactive Multimedia.*

Mathematical problem solving ability and self-efficacy are very important for students to have. However, the mathematical problem solving ability and self-efficacy of junior high school students are still relatively low. The purposes of this research were to: 1) Determine the improvement in mathematical problem solving ability of students who received the Problem Based Learning model assisted by interactive multimedia is higher than students who received the usual Problem Based Learning model; 2) Determine the self-efficacy of students who received the Problem Based Learning model assisted by interactive multimedia is better than students who received the usual Problem Based Learning model; 3) Determine whether there is a correlation between the improvement in mathematical problem solving ability and self-efficacy of students who received the Problem Based Learning model assisted by interactive multimedia; 4) Determine how effectiveness learning with the Problem Based Learning model assisted by interactive multimedia to improving mathematical problem solving ability and self-efficacy of students. The research method used is a quasi-experimental nonequivalent control group design. The sample of this research was students of SMPN 1 Soreang, class of 8F as the experimental class and class of 8G as the control class. The research instruments used were mathematical problem solving ability essay test and a self-efficacy questionnaire. The results of this research were: 1) The improvement in mathematical problem solving ability of students who received the Problem Based Learning model assisted by interactive multimedia was higher than students who received the usual Problem Based Learning model; 2) The self-efficacy of students who received the Problem Based Learning model assisted by interactive multimedia was better than students who received the usual Problem Based Learning model; 3) There was a positive correlation between the improvement in mathematical problem solving ability and self-efficacy of students who received the Problem Based Learning model assisted by interactive multimedia; 4) Learning with the Problem Based Learning model assisted by interactive multimedia was high effectiveness towards improving mathematical problem solving ability of students and moderate effectiveness towards self-efficacy of students.

Keywords : mathematical problem solving, self-efficacy, Problem Based Learning model, interactive multimedia.