THE ENHANCEMENT OF JUNIOR HIGH SCHOOL STUDENTS’ ABILITIES IN MATHEMATICAL PROBLEM SOLVING USING SOFT SKILL-BASED METACOGNITIVE LEARNING

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Abstract
The aim of this study is to know the differences of enhancement in mathematical problem solving ability (MPSA) between the students who received soft skill-based metacognitive learning (SSML) with the students who got conventional learning (CL). This research is a quasi experimental design with pretest-posttest control group. The population in this study is the students of Junior High School in Pekanbaru city. The sample consist of 135 students, 68 of them are from the high-level school, and 67 students are from the middle-level school. The instruments are mathematical prior knowledge (MPK) test, MPSA test, instruction observation sheet, students journal about the lesson, and the guideline for interview. The data was analyzed using t-test and two-way ANOVA. The result of data analysis indicates: (1) overall, the enhancement of students’ MPSA with SSML approach significantly is higher than those with conventional learning (CL); (2) there is no interaction between the learning approach (SSML and CL) with the school level (high and middle) toward the enhancement of MPSA; (3) there is no interaction between the learning approach (SSML and CL) with MPK (upper, middle, and low) toward the enhancement of MPSA.

Keywords: Mathematical Problem Solving Ability, Soft Skills-Based, Metacognitive Learning

The low of Indonesian students’ mathematical abilities are a classic problem that cannot be overcome in a short period of time. The study of TIMSS 2007, TIMSS 2011 and PISA 2009 suggest that Indonesian students have low proficiency in answering the questions of international standard, especially in mathematical problem solving ability. This weakness appears due to the students are...