

ABSTRACT

Fadhilah Hayati, Nim 4183111076 (2022). The Application Of An Open-Ended Learning Approach with Probing-Prompting Methods to Improve Students' Mathematical Problem-Solving Ability at Grade VIII SMP Negeri 1 Binjai.

The purpose of this study was to see if the open-ended approach combined with the probing prompting method influenced students' mathematical problem-solving abilities. This study was carried out at SMP Negeri 1 Binjai from May to June 2022. This study's sample included 32 students from class VIII-7 as the control group and 32 students from class VIII-5 as the experimental group. This is an experimental study that employs a quasi-experimental method with a pre-test and post-test design. This study employs a validated and tested test instrument. The normality of data on students' mathematical problem-solving abilities was tested, and the results were normally distributed. The homogeneity test was also used in this study, and the results show that the research sample came from a homogeneous population. The independent sample t-test was used to test hypotheses, and the results of this study at the significance level ($\alpha = 0.05$) showed that the significance value 0.00 ($0.00 < 0.05$) then the alternative hypothesis was accepted, indicating that there is a mean difference in problem-solving abilities between students who use the open-ended approach to probing prompting and students who use the traditional model. According to the explanation above, there is an effect on the mathematical problem solving ability of students at SMP Negeri 1 Binjai after the implementation of the open-ended approach with the probing-prompting method.

Keywords: Open-ended approach, probing-prompting methods, mathematical problem-solving ability.

