## ABSTRACT

**Tryani Cintya Siahaan.** The Effectiveness of RME Approach with Assisted by Learning Media on Students' Mathematical Problem-Solving Abilities at SMP Negeri 8 Percut Sei Tuan.

The purpose of this research is: 1) The effectiveness of the RME approach on mathematical problem-solving abilities at SMP Negeri 8 Percut Sei Tuan as compared to ordinary learning. 2) There is a relationship between students' problem-solving skills and their initial ability (low, medium, high). The research was conducted at SMP Negeri 8 Percut Sei Tuan from May to June 2022. All the seventh-grade students at SMP Negeri 8 Percut Sei Tuan were subjects of this study. A random sample of 30 students from each class, VII-1 as the experiment class and VII-2 as the control class, was taken. This research is included experimental research using quasi-experiment methods. The instrument utilized were, an introductory mathematical aptitude test, problem-solving test, a sheet of student's activity observation, and a questionnaire with student responses. The data analysis use in this research is ANAVA two-ways. The findings of this study revealed that: 1) RME approach with assisted by learning media on problem solving ability is effective compared to ordinary learning, and 2) there was no interaction between learning and students' mathematical initial ability low, medium, and high on students' mathematical problem-solving ability. The researcher recommended using the RME technique with the use of learning media as an alternate method for teachers to help pupils improve their problem-solving skills.

**Key word:** Effectiveness, Students' Mathematical Initial Ability, RME approach, learning media, Problem-Solving Ability.

