

## **ABSTRACT**

*The Influence of the Realistic Mathematics Education (RME) Model on Students' Reasoning and Mathematical Connection Abilities in Triangle and Quadrilateral Material. Fadila*

**Keyword:** *mathematical connection ability, mathematical reasoning, Realistic Mathematics Education (RME), triangles and quadrilaterals*

*This study aims to determine whether there is an effect of the Realistic Mathematics Education (RME) model on the mathematical reasoning and connection abilities of seventh-grade students at MTs Misbahul Munir in the subject matter of triangles and quadrilaterals.*

*The method used is a pre-experimental method with a quantitative approach, employing a one-group pre-test and post-test research design. The sample consists of all seventh-grade students at MTs, using a non-probability sampling technique (saturated sampling). Data analysis employs the N-Gain test and t-test.*

*The analysis results show a significant improvement in the students' mathematical reasoning and connection abilities after the implementation of the RME model. The calculated t-value of 6.6764061 is greater than the t-table value (2.365) at a 5% significance level, thus rejecting  $H_0$  and accepting  $H_a$ . Therefore, the RME model positively influences the improvement of seventh-grade students' mathematical reasoning and connection abilities in understanding the subject matter of triangles and quadrilaterals.*