

**IMPROVING MATHEMATICAL CONCEPT UNDERSTANDING ABILITY IN
ELEMENTARY SCHOOL GRADE IV STUDENTS LEARNING FRACTIONS
USING A REALISTIC MATHEMATICS EDUCATION (RME) APPROACH**

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ABSTRACT

This study aims to determine the increase in the ability to understand mathematical concepts. The background of this research is the condition that Grade IV students at SDN GIRIMUKTI have not been able to master the mathematical concepts that will be used to solve problems. This is due to a lack of mastery of the basic concepts related to the material. This study uses quantitative research methods using a pre-experimental design with a type of one group pretest posttest design. The pretest results for students' mathematical concept understanding abilities obtained an average value of 4.57 and the posttest results for students' mathematical concept understanding abilities obtained an average value of 7.90 then the N-gain value of student learning outcomes was 0.62 in the medium category. Increased ability to understand mathematical concepts by 3.33 in the medium category due to the application of cooperative learning with the Realistic Mathematics Education (RME) approach, teachers can guide students in conducting experiments on student knowledge and the processes students use in solving problems. From the average score of the pretest and posttest of the ability to understand mathematical concepts, it shows that there are differences in values that have significant differences, which means that there is success in students' mathematical concept understanding abilities and the teacher and student responses to the application of the approach (RME) are good, namely the teacher's questionnaire obtained 87% and students 77%. In line with Irawati's research, (2016) stated that in general students' responses to learning with the (RME) approach were positive.

Keywords: *Understanding of Mathematical Concepts, Realistic Mathematics Education (RME)*