

THE EFFECT OF USING RECYCLED MATERIAL LEARNING MEDIA ON JUNIOR HIGH SCHOOL STUDENTS' MATHEMATICS LEARNING MOTIVATION

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ABSTRACT

This study aimed to examine the effect of using recycled material-based learning media on junior high school students' motivation to learn mathematics, particularly in the topic of three-dimensional geometry. Mathematics is often considered a difficult subject because many of its concepts are abstract, resulting in low student motivation during the learning process. Therefore, the use of concrete and innovative learning media is expected to improve students' motivation and engagement. This research employed a quantitative approach using a pre-experimental method with a one-group pretest-posttest design. The population and sample consisted of 16 ninth-grade students at SMP Babul Istiqamah Susoh, selected using a saturated sampling technique because the entire population was involved in the study. Data were collected using a non-test instrument in the form of a learning motivation questionnaire administered before (pretest) and after (posttest) the implementation of recycled material-based learning media. The questionnaire consisted of 16 Likert-scale statements measuring students' learning motivation. Data were analyzed using descriptive statistical analysis, normality testing with the Shapiro-Wilk test, and hypothesis testing through the Paired Sample T-test using SPSS version 27. The results revealed that the average learning motivation score increased from 37.38 in the pretest to 58.94 in the posttest. Before the treatment, most students were categorized as having low learning motivation (75%), whereas after the treatment, the majority were categorized as having high (62.50%) and very high (12.50%) learning motivation. Furthermore, the Paired Samples T-test produced a significance value of $< .001$ (Sig. < 0.05), indicating that the null hypothesis (H_0) was rejected and the alternative hypothesis (H_1) was accepted. These findings demonstrate that recycled material-based learning media had a significant positive effect on students' mathematics learning motivation. Therefore, this learning media can be recommended as an innovative, low-cost, environmentally friendly, and effective alternative for enhancing mathematics instruction in junior high schools

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