

ABSTRACT

DEVELOPMENT OF ETHNOMATHEMATICS-BASED E-MODULES TO IMPROVE STUDENTS' MATHEMATICAL PROBLEM SOLVING ABILITY

By

FITRI OKTARIA PIRMA

This research is a development research which aims to develop teaching materials in the form of e-modules based on ethnomathematics that are valid, practical, and effective to improve students' mathematical problem solving abilities. The research design uses a research design that is pretest-posttest control group design. The research procedure refers to the steps of the ADDIE development model (analyze, design, develop, implement, and evaluate). The research was conducted at SMP 33 Bandar Lampung class VIII even semester of the 2022/2023 academic year. Data collection techniques in this study included interviews, observations, questionnaires, tests of students' mathematical problem solving abilities. The data analysis technique used is descriptive statistics and t-test. Based on the data analysis of the validation results of media and material experts, the average value was 94.4% and 83.3% with very valid criteria, as well as the results of teacher and student responses regarding the practicality of ethnomathematics-based e-modules obtained an average score of 86.1%. and 90.7% with very practical criteria. Based on the results of the t-test on increasing (N-gain) mathematical problem solving abilities, it was obtained $0.000 < 0.05$, so that the ethnomathematics-based e-module is effective in increasing students' mathematical problem solving abilities. So, it can be concluded that ethnomathematics-based e-modules meet the valid, practical, and effective criteria for improving students' mathematical problem solving abilities.

Keyword: E-module, Ethnomatematics, Mathematical Problem Solving Ability.

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