

ABSTRACT

SANTI RAHMAWATI.2024. OPTIMALIZING MATHEMATICAL CRITICAL THINKING ABILITY AND LEARNING ABILITY OF MTs STUDENTS THROUGH PROBLEM-BASED MEANINGFUL LEARNING.
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This study aims to optimize students' mathematical critical thinking skills and learning independence through problem-based meaningful learning using digital book media. This research uses a mixed research method (mix method) with a concurrent model of the Triangulation type. This model is done by combining qualitative and quantitative data used together in order to obtain a comprehensive analysis in answering research questions. The technique was carried out in one study to get a more comprehensive understanding. The subjects in this study were students of class IX D consisting of 25 students of MTs Negeri 2 Tasikmalaya in the 2023/2024 academic year. The instruments used in this study were pretests and posttests about critical thinking skills in collecting quantitative data and questionnaires and interviews in collecting qualitative data. In this study, researchers made a digital book design using the Canva application to make it more attractive. Digital book made with PBM (Problem Based Learning) stages that contain indicators of critical thinking skills. In this study it was found that there was a significant increase in students' mathematical critical thinking skills after the application of the problem-based meaningful learning model, the increase was significant. The use of digital book in problem-based meaningful learning is proven to be effective with the effect size which is in the strong effect criteria. In terms of affective ability, namely learning independence which contains 3 aspects, namely metacognition, motivation and behavior, it is successfully optimized through meaningful problem-based learning with the help of digital book media. The questionnaire results show that students have a high and fairly uniform level of metacognition and motivation, but there is a greater variation in their behavior. Thus it is concluded that problem-based meaningful learning with digital book media can optimize students' mathematical critical thinking skills and learning independence significantly.

Keywords: Critical Thinking Ability, Learning Independence, Meaningful Problem-Based Learning