

THE EFFECT OF PROJECT-BASED LEARNING (PJBL) MODEL ASSISTED BY QUIZIZZ ON THE MATHEMATICS LEARNING OUTCOMES OF FIFTH GRADE ELEMENTARY SCHOOL STUDENTS

ABSTRACT

This research is motivated by the low mathematics learning outcomes of fifth-grade students at SDN 104 Langensari Senanggalih, which are caused by the dominance of conventional lecture methods, the lack of active student engagement in the learning process, and the suboptimal use of learning models and media. The objectives of this study are to (1) identify the learning process, (2) determine the differences in learning outcomes, and (3) examine the effect of the Project-Based Learning (PjBL) model assisted by the Quizizz application on students' mathematics learning outcomes. This research employs a quantitative method with a quasi-experimental design in the form of a nonequivalent control group design. The research sample consists of two classes: the experimental class, which used the PjBL model assisted by Quizizz, and the control class, which used conventional methods, with 25 students in each class. The instruments used in this study include learning outcome tests, observation sheets, and interviews. The tests were administered during the pretest and posttest phases, while the interviews were used to strengthen data regarding the learning process. Data analysis was conducted using IBM SPSS 29 for Mac. The results of the study show that: (1) the learning process using the PjBL model assisted by Quizizz ran smoothly, effectively, and was able to increase active student involvement; (2) the mathematics learning outcomes of students who used the PjBL model assisted by Quizizz were better than those who received conventional learning; and (3) there was a significant effect of applying the PjBL model assisted by Quizizz on mathematics learning outcomes, with an effect size value of 1.526, which falls into the high category. Thus, the PjBL model assisted by Quizizz is proven to be effective in improving mathematics learning outcomes in elementary school.

Keywords: *Learning Outcomes; Mathematics; Project-Based Learning; Quizizz; Elementary School Students*