

ABSTRACT

This study was motivated by the low level of students' conceptual understanding in Grade IV of SD Negeri 6 Muara Dua in science and social studies (IPAS) learning, particularly on the topic of transforming energy forms. The learning process was still teacher-centered, resulting in students being less active in constructing their own conceptual understanding. This study aims to determine the effect of the STEAM learning model on students' conceptual understanding in IPAS learning on the topic of energy transformation in Grade IV of SD Negeri 6 Muara Dua. This research employed a quantitative approach with a quasi-experimental design using a nonequivalent control group design (pretest-posttest design). The population of this study consisted of all Grade IV students of SD Negeri 6 Muara Dua, divided into a control class and an experimental class. The control class was taught using the Project Based Learning (PjBL) model, while the experimental class was taught using the STEAM model. This research employed a quantitative approach with a quasi-experimental design using a nonequivalent control group design (pretest-posttest design). The population of this study consisted of all Grade IV students of SD Negeri 6 Muara Dua, divided into a control class and an experimental class. The control class was taught using the Project Based Learning (PjBL) model, while the experimental class was taught using the STEAM model. The results showed that the mean posttest score of the experimental class was 84.22, which was higher than the mean posttest score of the control class, which was 72.10. The Mann-Whitney U test results obtained an Asymp. Sig. (2-tailed) value of 0.000, which is lower than the significance level of 0.05, indicating a significant effect. Therefore, it can be concluded that the STEAM learning model has a significant effect on students' conceptual understanding in IPAS learning on the topic of energy transformation in Grade IV of SD Negeri 6 Muara Dua.f

Keywords: STEAM, Conceptual Understanding, Natural and Social Sciences (IPAS).