

ABSTRACT

Silvani Br Tarigan, IDN 4193322001 (2024), The Effect of Problem Based Learning Model on Students Learning Outcomes In the Material of Work and Energy class X of Senior High School N 1 Tanah Pinem

This study aims to determine the effect of Problem Based Learning (PBL) on student learning outcomes. this type of research is quai eksperimen. The population in this study were all X grade students of SMAN 1 Tanah Pinem in the 2023/2024 academic year. The sample was taken with cluster random sampling technique and obtained class X-4 as the experimental class and class X-1 as the control class. The instrument used is a learning outcome test in the form of multiple choice questions totaling 15 items that have been approved by the validator. Before being given different treatments, a pre-test is carried out, namely the average value of the experimental class pre-test 42.02 and the average value of the control class pre-test 40.00. In testing the normality and homogeneity of the pre-test data of the two classes distributed thitung > ttabel = 1.701 > 1.669 then Ho is accepted, meaning that the initial ability of the experimental class students and the control class is the same. after completing the learning in both classes, a post-test was carried out with the average results of the experimental class 73.13 and the control class 69.49. In testing the normality and homogeneity of post-test data, it was found that the data of the two classes were normally distributed and homogeneous. The results of the post-test t test obtained tcount > ttable are accepted, where the difference in learning outcomes between the experimental class and the control class means that there is an effect of the problem-based learning (PBL) model. Based on these results, it can be concluded that there is an effect of the PBL model on student learning outcomes.

Keywords : Problem Based Learning Model, Learning Outcomes, Work and Energy

