THE INFLUENCE OF PROBLEM SOLVING MODELS WITH DEMONSTRATIONS ON STUDENT LEARNING OUTCOME AND ACTIVITIES IN BUFFER SOLUTION IN CLASS XI SMAS METHODIST- AN PANCURBATU

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ABSTRACT

This study aims to determine the effect of Problem Solving learning model along with Demonstrations on learning outcomes and student activity on the subject of Buffer Solutions. The population in this study were all students of class XI. The sampling technique used in the study was purposive sampling technique as many as 2 classes, namely 2 experimental classes. Data collection tools used objective techniques amounted to 22 questions that have been tested for validity, level of difficulty and reliability with a r value of 0.75. The results of data analysis showed an increase in student learning outcomes in experiment 1 class by 71% and experiment 2 class by 69%. The average value of student learning outcomes in the experimental class 1 was 82.56875 ± 2642.2, and the value of student learning outcomes in the experimental class 2 was 2515.16 ± 78.59875. The results of the t-test of the right-hand side are obtained tcount > t table (2.28 > 1.67) so that Ha is accepted. The results of calculating the activeness of students in the experimental class 1 showed that the average percentage of student activeness scores was 85.1562% and experimental class 2 was 87.32%. This shows that the learning model of Problem Solving accompanied by Demonstrations can increase student activity. From the calculation of correlation (the relationship of activeness with the increase in learning outcomes) shows a positive correlation. In the experimental class 1, r count = 0.459 and the experimental class 2 r count = 0.54, while rabel at $\alpha = 0.05$ (N = 32) is 0.349. Because tcount > ttable then there is a relationship between activeness and improvement in student learning outcomes that get learning with the buffer solution learning model.

Keyboard : *Student learning outcome, student activities, Problem Solving with Demonstration.*