ABSTRAK

Muthia Embun Khairafah. NIM. 4203151022 (2024). Pengaruh Model *Problem Based Learning* Terhadap Hasil Belajr Siswa pada Materi Getaran dan Gelombang di kelas VIII SMP Swasta Pahlawan Nasional.

Penelitian ini bertujuan untuk mengetahui pengaruh model *Problem Based Learning* terhadap hasil belajar siswa pada materi getaran dan gelombang kelas VIII SMP Swasta Pahlawan Nasional yang berjumlah 181 siswa. Sampel penelitian ini terdiri dari dua kelas yang diperoleh berdasarkan teknik *probility random sampling*. Kemudian diberi perlakukan yang berbeda kelas eksperimen dengan model *Problem Based Learning* dan kelas kontrol menggunakan model konvensional. Hasil rata-rata *posttest* yang diperoleh kelas eksperimen yaitu 68,53 dan kelas kontrol 56,31. Selanjutnya, data dianalisis dengan uji normalitas dan uji homogenitas. Setelah data dari *pre-test* dan *post-test* normal dan homogen. Selanjutnya, data *post-test* di uji t satu pihak diperoleh $t_{hitung} > t_{tabel}$ (1,921 >1,671). Maka H_o diterima dan H_a ditolak. Dengan demikian data menunjukkan bahwa model *Problem Based Learning* berpengaruh terhadap hasil belajar siswa pada materi getaran dan gelombang kelas VIII SMP Swasta Pahlawan Nasional. Perhitungan g Faktor (*N-Gain*) sebesar 0,74 menunjukkan kategori tinggi yang artinya efektif dan dilihat dari hasil perhitungan dapat disimpulkan terjadi peningkatan hasil belajar siswa setelah menggunakan model *Problem Based Learning* kelas VIII SMP Swasta Pahlawan Nasional.

Kata Kunci : *Problem Based Learning,* Hasil Belajar, Getaran dan Gelombang

ABSTRACT

Muthia Embun Khairafah. NIM. 4203151022 (2024). The Effect of Problem-Based Learning Model on Student Learning Outcomes on Vibration and Wave Material in class VIII of Pahlawan Nasional Private Junior High School.

This study aims to determine the effect of Problem Based Learning model on student learning outcomes on vibration and wave material in class VIII of Pahlawan Nasional Private Junior High School, totaling 181 students. The sample of this study consisted of two classes obtained based on the probility random sampling technique. Then given different treatments experimental class with Problem Based Learning model and control class using conventional model. The average posttest results obtained by the experimental class were 68.53 and the control class was 56.31. Furthermore, the data was analyzed by normality test and homogeneity test. After the data from the pre-test and post-test were normal and homogeneous. Furthermore, the post-test data in the one-party t test obtained $t_{count} > t_{table}$ (1.921>1.671). Then H_o is accepted and H_a is rejected. Thus the data shows that the Problem Based Learning model has an effect on student learning outcomes on vibration and wave material in class VIII of Pahlawan Nasional Private Junior High School. The calculation of the g factor (N-Gain) of 0.74 shows a high category which means it is effective and seen from the calculation results it can be concluded that there is an increase in student learning outcomes after using the Problem Based Learning model in class VIII of Pahlawan Nasional Private Junior High School.

Keywords: Problem Based Learning, Learning Outcomes, Vibrations and Waves