

ABSTRAK

Dina Witriana, NIM 4202121008 (2024). Pengaruh Model *Project Based Learning* Berbantuan Modul terhadap Hasil Belajar Siswa pada materi Momentum dan Impuls di SMA Swasta Al-Masdar.

Penelitian ini bertujuan mengetahui pengaruh model *project based learning* berbantuan modul terhadap hasil belajar siswa pada materi momentum dan impuls, serta mengetahui peningkatan hasil belajar siswa. Penelitian ini merupakan eksperimen semu dengan *two group pretest-posttest design*. Populasi penelitian adalah kelas XI IPA SMA Swasta Al-Masdar T.A 2023/2024. Teknik pengambilan sampel menggunakan *random sampling* yang terdiri dari dua kelas, yaitu kelas eksperimen diterapkan model *project based learning* berbantuan modul yang terdiri atas 36 siswa dan kelas kontrol diterapkan pembelajaran konvensional yang terdiri atas 39 siswa. Instrumen yang digunakan adalah tes. Tes berupa soal pilihan berganda berjumlah 22 butir dengan 5 pilihan jawaban. Rata-rata *pretest-posttest* siswa kelas eksperimen 39,6 dan 83,1 sedangkan kelas kontrol yaitu 37,9 dan 76,7. Analisis data menggunakan uji-T dan uji N-gain. Berdasarkan uji hipotesis diketahui bahwa model pembelajaran *project based learning* berbantuan modul memiliki pengaruh yang signifikan terhadap hasil belajar siswa pada materi momentum dan impuls. Peningkatan persentase hasil belajar siswa kelas eksperimen yaitu 73% dengan kategori tinggi, sedangkan kelas kontrol yaitu 63% dengan kategori sedang.

Kata Kunci : *project based learning*, modul, hasil belajar, momentum dan impuls

ABSTRACT

Dina Witriana, NIM 4202121008 (2024). The Effect of the Module-Assisted Project Based Learning Model on Student Learning Outcomes on Momentum and Impulse material at Al-Masdar Private High School.

This study aims to determine the effect of the module-assisted project based learning model on student learning outcomes in momentum and impulse material, as well as determine the increase in student learning outcomes. This research is a quasi-experiment with a two group pretest-posttest design. The research population was class XI Science at Al-Masdar Private High School T.A 2023/2024. The sampling technique used random sampling which consisted of two classes, namely the experimental class applied with a module-assisted project based learning model consisting of 36 students and the control class applied conventional learning consisting of 39 students. The instrument used is a test. The test consists of 22 multiple choice questions with 5 answer choices. The average pretest-posttest for experimental class students was 39.6 and 83.1, while for the control class it was 37.9 and 76.7. Data analysis used the T-test and the N-gain test. Based on hypothesis testing, it is known that the module-assisted project based learning model has a significant effect on student learning outcomes in momentum and impulse material. The percentage increase in learning outcomes for experimental class students was 73% in the high category, while the control class was 63% in the medium category.

Keywords : project based learning, modules, learning outcomes, momentum and impulse