

ABSTRAK

Aldo Wednes Angkat: *Perbedaan Hasil Belajar Siswa Menggunakan Model Project Based Learning (PjBL) dan Problem Based Learning (PBL) pada Mata Pelajaran Pemeliharaan Sasis Sepeda Motor di Kelas XI SMK Negeri 1 Percut Sei Tuan. Skripsi. Fakultas Teknik. Universitas Negeri Medan. 2025.*

Penelitian ini berangkat dari permasalahan rendahnya hasil belajar peserta didik pada mata pelajaran Pemeliharaan Sasis Sepeda Motor di kelas XI SMK Negeri 1 Percut Sei Tuan. Hal tersebut tercermin dari tingkat ketuntasan belajar yang masih berada pada kisaran 33,3% hingga 36,7% pada tahun ajaran 2022/2023. Kondisi ini mengindikasikan perlunya penerapan model pembelajaran yang lebih menggarisbawahi pada keaktifan serta keterlibatan siswa pada rangkaian belajar. Oleh sebab itu, penelitian difokuskan pada kajian perbandingan efektivitas penerapan model *Project Based Learning* (PjBL) serta *Problem Based Learning* (PBL) terhadap hasil belajar siswa. Tujuan penelitian ini ialah guna menganalisis perbedaan hasil belajar siswa yang dibelajarkan memakai model PjBL serta PBL, serta mengidentifikasi model pembelajaran yang lebih efektif dalam meningkatkan hasil belajar pada mapel Pemeliharaan Sasis Sepeda Motor. Penelitian ini memakai pendekatan kuantitatif melalui metode eksperimen semu (quasi experimental) melalui desain pretest–posttest control group. Instrumen yang dipakai ialah tes hasil belajar yang diberikan sebelum serta usai perlakuan. uji-t dua sampel independent, normalitas, homogenitas ialah teknik analisis data penelitian ini. Hasil analisis data menunjukkan bahwa nilai t_{hitung} sebesar 7,920 lebih besar dibandingkan nilai t_{tabel} sebesar 1,672 pada taraf signifikansi 0,05, maka hipotesis alternatif diterima serta hipotesis nol ditolak. Secara deskriptif, rata-rata skor posttest pada kelas yang mengaplikasikan model PjBL yakni 89,2, sedangkan kelas yang menerapkan model PBL rata-ratanya sebesar 76,13. Temuan ini membuktikan pengaplikasian model *Project Based Learning* memberi peningkatan hasil belajar yang lebih tinggi dibandingkan dengan model *Problem Based Learning*. Dengan demikian, model *Project Based Learning* dinyatakan lebih efektif meningkatkan hasil belajar siswa pada mata pelajaran Pemeliharaan Sasis Sepeda Motor.

Kata kunci: *Project Based Learning*, *Problem Based Learning*, hasil belajar, pemeliharaan sasis sepeda motor

ABSTRACT

Aldo Wednes Angkat: *Differences in Student Learning Outcomes Using Project-Based Learning (PjBL) and Problem-Based Learning (PBL) Models in Motorcycle Chassis Maintenance in Grade XI of SMK Negeri 1 Percut Sei Tuan. Thesis. Faculty of Engineering. Medan State University. 2025.*

This study is based on the low learning outcomes of students in the Motorcycle Chassis Maintenance subject in grade XI of SMK Negeri 1 Percut Sei Tuan. This is reflected in the learning completion rate which is still in the range of 33.3% to 36.7% in the 2022/2023 academic year. This condition indicates the need for the implementation of learning models that emphasize student activeness and involvement in the learning process. Therefore, this study focuses on a comparative analysis of the effectiveness of the Project Based Learning (PjBL) and Problem Based Learning (PBL) models on student learning outcomes. The purpose of this study is to analyze the differences in student learning outcomes taught using the PjBL and PBL models, and to identify the learning model that is more effective in improving learning outcomes in the Motorcycle Chassis Maintenance subject. This study applies a quantitative approach with a quasi-experimental design (quasi-experimental pretest–posttest control group). The instrument used is a learning outcome test given before and after the treatment. Data analysis techniques include normality tests, homogeneity tests, and two independent sample t-tests. The data analysis results show that the calculated t_{value} of 7.920 exceeds the t_{table} value of 1,672 at a significance level of 0.05, indicating that the alternative hypothesis is accepted. Descriptively, the group using the PjBL model, which obtained an average posttest score of 89.2, outperformed the PBL group, which obtained an average score of 76.13. Based on these findings, it can be concluded that the Project-Based Learning model is more effective than the Problem-Based Learning model in improving student learning outcomes in this expertise competency.

Keywords: Project-Based Learning, Problem-Based Learning, learning outcomes motorcycle chassis maintenance