

ABSTRAK

Jeremia Tarigan, NIM 5202422004 (2025). Perbedaan Hasil Belajar Siswa Yang Pembelajarannya Menggunakan Model Pembelajaran Problem Based Learning (PBL) Dan Project Based Learning (PJBL) Pada Dasar Dasar Teknologi Otomotif Di SMK N 1 Merdeka Berastagi Kelas X TBSM.

Tujuan penelitian ini adalah untuk mengetahui bagaimana hasil belajar siswa yang diajarkan menggunakan model pembelajaran *Problem Based Learning (PBL)* dengan model pembelajaran *Project Based Learning (PJBL)*. Penelitian kuantitatif ini menggunakan metode eksperimen semu. Studi ini terjadi di SMK N 1 Merdeka Berastagi. Metode pengambilan sampel *Simple random sampling* digunakan dalam penelitian ini. Kelas X TBSM 1 menerima perlakuan dengan model pembelajaran *Problem Based Learning (PBL)* dan kelas X TBSM 2 menerima perlakuan dengan model pembelajaran *Project Based Learning (PJBL)*. Alat pengumpul data yang digunakan yaitu tes hasil belajar siswa yang berupa pilihan berganda yang terdiri dari 25 soal. Uji t (*Independent Sample T Test*) dengan bantuan program Microsoft Excel digunakan untuk menganalisis data penelitian ini. Hasil penelitian menunjukkan terdapat perbedaan hasil belajar siswa pada materi perkembangan dunia otomotif yang pembelajarannya menggunakan model pembelajaran *Problem Based Learning (PBL)* dan *Project Based Learning (PJBL)* kelas X di SMK Negeri 1 Merdeka Berastagi. Secara statistik, hasil belajar siswa yang menggunakan model *PjBl* lebih tinggi daripada hasil belajar siswa yang menggunakan *PBL*. Sehingga dapat disimpulkan H_a diterima dan H_0 ditolak dengan pengujian hipotesis hasil belajar siswa pada taraf 0,05. Hal ini terbukti dengan hasil pengujian hipotesis yaitu $T_{hitung} (2,080) > T_{tabel} (1,672)$.

Kata Kunci : Hasil, Model, Perbedaan, Otomotif, Masalah, Proyek.



ABSTRACT

Jeremia Tarigan, NIM 5202422004 (2025). Differences in Student Learning Outcomes Using Problem Based Learning (PBL) and Project Based Learning (PJBL) Models on the Basics of Automotive Technology at SMK N 1 Merdeka Berastagi Class X TBSM.

The purpose of this study was to determine how the learning outcomes of students taught using the Problem Based Learning (PBL) learning model with the Project Based Learning (PJBL) learning model. This quantitative research used a quasi-experimental method. This study took place at SMK N 1 Merdeka Berastagi. The Simple random sampling method was used in this study. Class X TBSM 1 received treatment with the Problem Based Learning (PBL) learning model and class X TBSM 2 received treatment with the Project Based Learning (PJBL) learning model. The data collection tool used was a multiple-choice student learning outcome test consisting of 25 questions. The t-test (Independent Sample T Test) with the help of the Microsoft Excel program was used to analyze the data of this study. The results showed that there were differences in student learning outcomes on the material on the development of the automotive world which were taught using the Problem Based Learning (PBL) and Project Based Learning (PJBL) learning models for class X at SMK Negeri 1 Merdeka Berastagi. Statistically, the learning outcomes of students who used the PjBL model were higher than the learning outcomes of students who used PBL. So it can be concluded that H_a is accepted and H_0 is rejected by testing the hypothesis of student learning outcomes at the 0.05 level. This is proven by the results of the hypothesis testing, namely $T_{hitung} (2.080) > T_{tabel} (1.672)$.

Keywords: Results, Models, Differences, Automotive, Problems, Projects..

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