

## ABSTRAK

**Anugrah Imanuel, NIM 5211131001 (2025), Problem Based Learning (PBL) Terhadap Hasil Belajar Siswa Kelas X Program Keahlian Teknik Instalasi Tenaga Listrik Pada Mata Pelajaran Dasar Ketenagalistrikan di SMK Negeri 2 Medan**

Penelitian ini bertujuan mengetahui pengaruh Model *Problem Based Learning* (PBL) Terhadap Hasil Belajar Siswa Kelas X Program Keahlian Teknik Instalasi Tenaga Listrik Pada Mata Pelajaran Dasar Ketenagalistrikan di SMK Negeri 2 Medan. Metode penelitian menggunakan quasi eksperimen. Populasi penelitian seluruh siswa kelas X TITL 2 dan TITL 5 dengan masing-masing siswa satu kelas berjumlah 33 siswa. Kelas TITL 2 merupakan kelas kontrol yang diberikan perlakuan menggunakan Model Pembelajaran Konvensional dan kelas TITL 5 merupakan kelas eksperimen yang diberi perlakuan menggunakan Model Pembelajaran *Problem Based Learning* (PBL). Instrumen yang digunakan adalah tes belajar kognitif berupa pilihan berganda dengan jumlah soal sebanyak 35 soal tentang Dasar Tenaga Listrik. Berdasarkan hasil pengolahan data yang dilakukan melalui *software* SPSS.20 data pre-test diperoleh nilai rata-rata siswa kelas eksperimen sebesar 54,70 dan kelas Kontrol 52,76. Setelah diberikan perlakuan kelas eksperimen memperoleh rata-rata sebesar 83,70 dan kelas kontrol memperoleh rata-rata 73,45. Hasil analisis data menggunakan SPSS diketahui nilai uji normalitas dan uji homogenitas pada tiap-tiap data  $> 0,05$ , Hal ini terkonfirmasi melalui uji hipotesis atau uji t menggunakan SPSS dimana di ketahui bahwa nilai Pada penelitian diketahui bahwa nilai Sig. (2-tailed) sebesar 0,000 nilai tersebut  $< 0,005$  sehingga, diperoleh kesimpulan bahwa hipotesis  $H_a$  diterima dan hipotesis  $H_0$  ditolak. Berdasarkan hal tersebut diperoleh kesimpulan bahwa ada pengaruh signifikan penggunaan Model *Problem Based Learning* (PBL) terhadap hasil belajar siswa pada mata pelajaran dasar tenaga listrik di SMK Negeri 2 Medan.

**Kata Kunci:** Pengaruh, Model Pembelajaran, *Problem Based Learning* (PBL), Tenaga Listrik, Hasil Belajar.

## ABSTRACT

**Anugrah Imanuel, NIM 5211131001 (2025), *Problem Based Learning (PBL) on Learning Outcomes of Class X Students of Electric Power Installation Engineering Expertise Program in Basic Electricity Subjects at SMK Negeri 2 Medan.***

*This study aims to determine the effect of Problem Based Learning (PBL) Model on Learning Outcomes of Class X Students of Electric Power Installation Engineering Expertise Program in Basic Electricity Subjects at SMK Negeri 2 Medan. The research method used quasi experiment. The research population was all students of class X TITL 2 and TITL 5 with each class totaling 33 students. TITL 5 class is a control class that is given treatment using the Conventional Learning Model and TITL 2 class is an experimental class that is given treatment using the Problem Based Learning (PBL) Learning Model. The instrument used is a cognitive learning test in the form of multiple choice with a total of 35 questions about Basic Electricity. Based on the results of data processing carried out through SPSS.20 software, the pre-test data obtained the average value of experimental class students of 54,70 and control class 52,76. After being given the treatment, the experimental class obtained an average of 73,54 and the control class obtained an average of 83,70. The results of data analysis using SPSS show that the normality test value and homogeneity test on each data > 0.05, this is confirmed through the hypothesis test or t test using SPSS where it is known that the value of Sig. (2-tailed) of 0.000 the value is <0.005 so, it is concluded that the  $H_a$  hypothesis is accepted and the  $H_0$  hypothesis is rejected. Based on this, it is concluded that there is a significant effect of using the Problem Based Learning (PBL) model on student learning outcomes in basic electrical power subjects at SMK Negeri 2 Medan.*

**Keywords:** *Effect, Learning Model, Problem Based Learning (PBL), Electric Power, Learning Outcomes.*