ABSTRAK

Fadhillah Ramadhani: *Pengaruh Model Problem Based Learning (PBL) Berbantuan E-learning Terhadap Hasil Belajar Konsentrasi Keahlian Kelas XI Teknik Instalasi Tenaga Listrik (TITL) Di SMK Negeri 1 Percut Sei Tuan T.P 2024/2025*. Skripsi. Fakultas Teknik Universitas Negeri Medan. 2025.

Penelitian ini bertujuan untuk mengetahui : 1) Hasil belajar siswa menggunakan Model *Problem Based Learning* (PBL) berbantuan *E-Learning* pada kelas XI Teknik Instalasi Tenaga Listrik (TITL). 2) Hasil belajar siswa menggunakan Model *Problem Based Learning* (PBL) berbasis buku cetak pada kelas XI Teknik Instalasi Tenaga Listrik (TITL). 3) Hasil belajar siswa menggunakan Model *Problem Based Learning* (PBL) berbantuan *E-Learning* lebih tinggi dari menggunakan Model *Problem Based Learning* (PBL) berbasis buku cetak pada kelas XI Teknik Instalasi Tenaga Listrik (TITL). Desain penelitian ini adalah *Cluster Random Sampling* dengan model Eksperimen Semu. Populasi dalam penelitian ini adalah seluruh siswa kelas XI TITL SMK Negeri 1 Percut Sei Tuan, yaitu kelas XI TITL 1 dan XI TITL 2 dengan jumlah seluruh siswa 57 orang. Sampel yang digunakan dalam penelitian ini kelas XI TITL 1 sebagai kelas eksperimen 2 dan kelas XI TITL 2 sebagai kelas eksperimen 1. Berdasarkan perhitungan uji hipotesis data kognitif diperoleh t_{hitung} = 2,423 dan t_{tabel} = 2,004 sedangkan perhitungan uji hipotesis data psikomotorik diperoleh thitung = 7,617 dan ttabel = 2,004, maka nilai $t_{hitung} > t_{tabel}$ yaitu 2,423 > 2,004 dan 7,617 > 2,004, sehingga dapat disimpulkan bahwa hipotesis alternatif (Ha) dalam penelitian ini diterima dan menolak hipotesis nol (Ho). Maka dapat disimpulkan hasil belajar menggunakan Model *Problem Based Learning* berbantuan *E-learning* lebih tinggi dari hasil belajar menggunakan Model *Problem Based Learning* berbasis Buku Cetak di kelas XI TITL SMK Negeri 1 Percut Sei Tuan.

Kata kunci: Eksperimen Semu, PBL *E-learning*, Hasil Belajar

ABSTRACT

Fadhillah Ramadhani: *The Effect of Problem Based Learning (PBL) Model Assisted by E-learning on Learning Outcomes of Class XI Electric Power Installation Engineering (TITL) Expertise Concentration at SMK Negeri 1 Percut Sei Tuan T.P 2024/2025*. Thesis. Faculty of Engineering, State University of Medan. 2025.

This study aims to determine: 1) Student learning outcomes using the Problem Based Learning (PBL) model assisted by E-Learning in class XI Electrical Power Installation Engineering (TITL). 2) Students' learning outcomes using printed book-based Problem Based Learning (PBL) Model in class XI Electrical Power Installation Engineering (TITL). 3) Student learning outcomes using the Problem Based Learning (PBL) Model assisted by E-Learning are higher than using the printed book-based Problem Based Learning (PBL) Model in class XI Electrical Power Installation Engineering (TITL). The design of this research is Cluster Random Sampling with a Pseudo-Experiment model. The population in this study were all students of class XI TITL SMK Negeri 1 Percut Sei Tuan, namely class XI TITL 1 and XI TITL 2 with a total of 57 students. The samples used in this study were XI TITL 1 class as experimental class 2 and XI TITL 2 class as experimental class 1. Based on the calculation of the cognitive data hypothesis test obtained t_{count} = 2.423 and t_{table} = 2.004 while the calculation of the psychomotor data hypothesis test obtained tcount = 7.617 and ttable = 2.004, then the $t_{count} > t_{table}$ value is 2.423> 2.004 and 7.617> 2.004, so it can be concluded that the alternative hypothesis (Ha) in this study is accepted and rejects the null hypothesis (Ho). So it can be concluded that the learning outcomes using the Problem Based Learning Model assisted by E-learning are higher than the learning outcomes using the Print Book-based Problem Based Learning Model in class XI TITL SMK Negeri 1 Percut Sei Tuan.

Keywords: *Quasi Experiment, PBL E-learning, Learning Outcomes*