

ABSTRAK

Vany Kurniawan (5202131006) : Pengaruh Penggunaan Model Pembelajaran *Project Based Learning* (PjBL) Dan Model Pembelajaran *Problem Based Learning* (PBL) Terhadap Hasil Belajar Siswa Mata Pelajaran Instalasi Penerangan Listrik Kelas XI SMKS Sinar Husni 2 TR Labuhan Deli. Skripsi. Jurusan Pendidikan Teknik Elektro. Fakultas Teknik. Universitas Negeri Medan. 2025

Penelitian ini bertujuan untuk : 1) Untuk mengetahui hasil belajar Instalasi Listrik Penerangan pada siswa yang diajar dengan Model Pembelajaran *Project Based Learning* (PjBL) di kelas XI TITL SMKS Sinar Husni 2 TR Labuhan Deli Tahun Ajaran 2025. 2) Untuk mengetahui hasil belajar Instalasi Listrik Penerangan pada siswa yang diajar dengan Model Pembelajaran *Problem Based Learning* di kelas XI TITL SMKS Sinar Husni 2 TR Labuhan Deli Tahun Ajaran 2025. 3) Untuk mengetahui bahwa hasil belajar Instalasi Listrik Penerangan pada siswa yang diajar dengan Model Pembelajaran *Project Based Learning* (PjBL) lebih tinggi dibandingkan dengan hasil belajar siswa yang diajar dengan Model Pembelajaran *Problem Based Learning* (PBL) di kelas XI TITL SMKS Sinar Husni 2 TR Labuhan Deli Tahun Ajaran 2025.

Penelitian ini menggunakan pendekatan Kuantitatif dengan jenis penelitian *quasi eksperimen*, Alat pengumpulan data yang digunakan adalah tes pilihan ganda sebanyak 40 soal. Subjek dalam penelitian ini menggunakan 2 kelas yaitu siswa kelas XI TITL-1 dan kelas XI TITL-2. Masing-masing kelas berjumlah 32 siswa, yaitu kelas eksperimen yang diajar dengan PjBL dan kelas kontrol yang diajar dengan PBL. Pengumpulan data yang digunakan adalah *posttest only design* dan lembar penilaian psikomotorik. Hasil penelitian menunjukkan bahwa rata-rata hasil belajar siswa di kelas eksperimen (PjBL) adalah 77,44 aspek kognitif dan 84,07 aspek psikomotorik, sedangkan di kelas kontrol (PBL) adalah 71,81 aspek kognitif dan 79,63 aspek psikomotorik. Hasil uji t menunjukkan $t_{hitung} (2,957) > t_{tabel} (1,669)$ pada taraf signifikansi 5% ($\alpha = 0,05$), sehingga H_a diterima. Dengan demikian, hasil belajar siswa yang menggunakan model *Project Based Learning* (PjBL) lebih tinggi dibandingkan dengan siswa yang menggunakan model *Problem Based Learning* (PBL) dalam mata pelajaran instalasi penerangan listrik di kelas XI TITL SMKS Sinar Husni 2 TR Labuhan Deli Tahun Ajaran 2025.

Kata kunci: *Project Based Learning* (PjBL), *Problem Based Learning* (PBL), Hasil Belajar, Instalasi Listrik Penerangan.

ABSTRACT

Vany Kurniawan (5202131006): The Effect of Using Project Based Learning (PjBL) and Problem Based Learning (PBL) Models on Student Learning Outcomes in Electrical Lighting Installation Subjects of Class XI SMKS Sinar Husni 2 TR Labuhan Deli. Thesis. Department of Electrical Engineering Education. Faculty of Engineering. State University of Medan. 2025

This study aims to: 1) Determine the learning outcomes of students in the Electrical Lighting Installation subject who are taught using the Project Based Learning (PjBL) model in class XI TITL at SMKS Sinar Husni 2 TR Labuhan Deli for the 2025 academic year. 2) Determine the learning outcomes of students in the Electrical Lighting Installation subject who are taught using the Problem Based Learning (PBL) model in class XI TITL at SMKS Sinar Husni 2 TR Labuhan Deli for the 2025 academic year. 3) Determine whether the learning outcomes of students taught using the Project Based Learning (PjBL) model are higher than those taught using the Problem Based Learning (PBL) model in the Electrical Lighting Installation subject in class XI TITL at SMKS Sinar Husni 2 TR Labuhan Deli for the 2025 academic year.

This study employed a quantitative approach with a quasi-experimental research design. The data collection instrument used was a multiple-choice test consisting of 40 questions. The subjects of this study were two classes: class XI TITL-1 and class XI TITL-2, each consisting of 32 students. Class XI TITL-1 served as the experimental class taught using the PjBL model, while class XI TITL-2 served as the control class taught using the PBL model. The data collection technique used was the posttest-only design along with a psychomotor assessment sheet. The results of the study showed that the average learning outcomes of students in the experimental class (PjBL) were 77.44 in the cognitive aspect and 84.07 in the psychomotor aspect, while the control class (PBL) obtained an average of 71.81 in the cognitive aspect and 79.63 in the psychomotor aspect. The results of the t-test analysis showed that $t_h = 2.957$ was greater than $t_t = 1.669$ at a significance level of 5% ($\alpha = 0.05$), indicating that H_a was accepted. Thus, it can be concluded that the learning outcomes of students taught using the Project Based Learning (PjBL) model were higher than those taught using the Problem Based Learning (PBL) model in the Electrical Lighting Installation subject for class XI TITL at SMKS Sinar Husni 2 TR Labuhan Deli in the 2025 academic year.

Keywords: *Project Based Learning (PjBL), Problem Based Learning (PBL), Learning Outcomes, Electrical Lighting Installations.*