ABSTRAK

Ni Asmarakingqin, *Perbedaan Hasil Belajar Siswa Pada Mata Pelajaran Instalasi Penerangan Listrik Antara Metode Problem Solving pada gambar dan Pada Rangkaian hasil Kerja.* Skripsi. Jakarta, Program Studi Pendidikan Teknik Elektro, Fakultas Teknik,Universitas Negeri jakarta, 2018. Dosen Pembimbing: Dr. Soeprijanto, M.Pd dan Drs. Faried W, M.Pd.

Penelitian ini bertujuan untuk: (1) Mengetahui perbedaan hasil belajar siswa mata pelajaran Instalasi Penerangan Listrik menggunakan model *problem solving* pada gambar dan rangkaian hasil kerja, (2) Mengetahui perbedaan hasil belajar siswa yang diberi pembelajaran problem solving pada rangkaian hasil kerja antara siswa berkemampuan tinggi dan rendah (3) Mengetahui interaksi antara metode *problem solving* pada gambar dengan rangkaian hasil kerja siswa kelas XI SMK Malaka. Responden penelitian ini adalah siswa kelas XI TITL SMK Malaka Jakarta, dilaksanakan pada bulan Februari-April 2018. Menggunakan metode *quasi eksperimental* dengan rancangan factorial 2x2. Populasi penelitian ini adalah siswa kelas XI TITL di SMK Malaka Jakarta yang terdiri dari 2 kelas. Sampel ditentukan dengan teknik sensus didapatkan 2 kelas. Kelas eksperimen pertama yang diberi model pembelajaran *problem solving* pada rangkaian hasil kerja yaitu kelas XI TITL 2 dan kelas kontrol yang diberi model pembelajaran *problem solving* pada gambar yaitu kelas XI TITL 1. Teknik analisis data yang digunakan adalah Analisis Varian (ANAVA) dua jalur

Berdasarkan hasil penelitian dapat disimpulkan: (1) Terdapat perbedaan hasil belajar mata pelajaran Instalasi Penerangan Listrik antara siswa yang diberi model pembelajaran *problem solving* pada gambar dengan siswa yang diberi model pembelajaran *problem solving* pada rangkaian hasil kerja dilihat dari $F_h = 3,65 > F_{tabel} = 2,76$ 2) (2) Terdapat perbedaan hasil belajar mata Instalasi Penerangan Listrik yang diperlakuan *problem solving* pada rangkaian hasil kerja pada siswa berkemampuan tinggi dan rendah dilihat dari $F_h = 6,46 > F_{tabel} = 2,76$. (3) Tidak terdapat interaksi antara metode *problem solving* pada gambar dan rangkaian hasil kerja dibuktikan dengan $F_h = 2,56 < F_{tabel} = 2,76$.

Kata Kunci: *Problem Solving*, Gambar, Rangakaian hasil kerja, Hasil Belajar Instalasi Penerangan Listrik Gedung dan bangunan

ABSTRACT

Ni Asmarakingqin, Differences in Student Learning Outcomes in Electrical Lighting Installation Subjects Between *Problem Solving* Methods in Pictures and in Work Series. Essay. Jakarta, Electrical Engineering Education Study Program, Faculty of Engineering, Jakarta State University, 2018. Advisor: Dr. Soeprijanto, M.Pd and Drs. Faried W, M.Pd.

This study aims to: (1) Knowing the differences in learning outcomes of students in Electrical Lighting Installation subjects using a *problem solving* model on images and work results, (2) Knowing the differences in student learning outcomes given *problem solving* learning in a series of work outcomes between high-ability students and low (3) Knowing the interaction between *problem solving* methods in the picture with a series of work results of the Malaka Vocational High School class XI students.

The respondents of this study were XI grade students at Malaka Vocational High School Jakarta, held in February-April 2018. Using the quasi experimental method with a factorial 2x2 design. The population of this research is the XI TITL class students at Malaka Vocational School Jakarta which consists of 2 classes. The sample is determined by the census technique obtained by 2 classes. The first experimental class that was given a *problem solving* learning model in a series of work, namely class XI TITL 2 and a control class that was given a problem solving learning model in the image is class XI TITL 1. The data analysis technique used was two-way Variant Analysis (ANAVA).

Based on the results of the study it can be concluded: (1) There are differences in learning outcomes of Electrical Lighting Installation subjects between students who were given a *problem solving* pad learning model with students who were given a problem solving learning model in a series of work results seen from Fh = 3.65> Ftable = 2.76 2) (2) There are differences in the learning outcomes of Electric Lighting Installation eyes which are *problem solving* in the series of work results in high and low ability students seen from Fh = 6.46> Ftable = 2.76. (3) There is no interaction between the *problem solving* method in the picture and the work sequence is proven by Fh = 2.56 <Ftable = 2.76.

Keywords: Problem Solving, Pictures, Work Results, Learning Outcomes of Electrical Lighting Installation Buildings and buildings