

## ABSTRAK

**CRESTANO FLORENZIA SEMBIRING NIM 5153311007. 'Pengaruh Model Pembelajaran *Project Based Learning* Terhadap Peningkatan Hasil Belajar Mata Pelajaran Gambar Teknik Pada Siswa Kelas X Program Keahlian Desain Pemodelan dan Informasi Bangunan di SMK Negeri 5 Medan". Skripsi, Fakultas Teknik–Universitas Negeri Medan. 2021.**

Penelitian ini bertujuan untuk mengetahui : Pengaruh Model *Project Based Learning* Terhadap Peningkatan Hasil Belajar Mata Pelajaran Gambar Teknik Pada Siswa Kelas X Program Keahlian Desain Pemodelan dan Informasi Bangunan di SMK Negeri 5 Medan. Tahun Pelajaran 2020/2021. Penelitian ini dilakukan pada siswa kelas X Program Keahlian Desain Pemodelan dan Informasi Bangunan SMK Negeri 5 Medan. Populasi dalam penelitian ini adalah siswa kelas X Program Keahlian Desain Pemodelan dan Informasi Bangunan yang berjumlah 65 siswa. Kelas kontrol X TGB-1 terdiri dari 33 siswa dan X TGB-2 32 siswa. Sebelum melaksanakan penelitian kelas eksperimen dan kelas kontrol diberikan pretest dan di akhir pembelajaran diberikan *posttest*. Hasil analisis data dari hasil pretest yang diperoleh kelas eksperimen yaitu,  $X = 38,062$  dengan nilai tertinggi 54 dan terendah 25. Sedangkan pada kelas kontrol  $X = 39,364$  dengan nilai tertinggi 54 dan terendah 25. Kemudian kelas eksperimen diberi perlakuan dengan menggunakan model pembelajaran *Project Based Learning* dan pada kelas kontrol diberikan perlakuan dengan metode pembelajaran konvensional. Hasil analisis data dari hasil posttest yang diperoleh kelas eksperimen yaitu,  $X = 84,343$  dengan nilai tertinggi 92 dan terendah 75. Sedangkan pada kelas kontrol  $X = 80,091$  dengan nilai tertinggi 88 dan terendah 72. Pengujian hipotesis dilakukan dengan rumus uji-t, dari data perhitungan hipotesis dengan taraf signifikan 5% diperoleh  $t_{hitung} > t_{tabel}$  ( $5,383 > 1,670$ ), maka  $H_a$  diterima dan  $H_0$  ditolak. Dengan demikian dapat disimpulkan bahwa hasil belajar siswa menggunakan model pembelajaran *Project Based Learning* memberikan nilai yang lebih tinggi daripada hasil belajar yang menggunakan metode pembelajaran konvensional pada mata pelajaran gambar teknik.

Kata Kunci: Hasil Belajar, *Project Based Learning*, gambar teknik

## ABSTRACT

**CRESTANO FLORENZIA SEMBIRING NIM 5153311007. "The Influence of Project Based Learning Learning Models on Improving Learning Outcomes of Engineering Drawing Subjects in Class X Students of the Building Modeling and Information Design Expertise Program at SMK Negeri 5 Medan". Thesis, Faculty of Engineering-Medan State University. 2021.**

This study aims to determine: The Effect of Project Based Learning Model on Improving Learning Outcomes of Engineering Drawing Subjects in Class X Students of the Building Information and Modeling Design Expertise Program at SMK Negeri 5 Medan. Academic Year 2020/2021. This research was conducted on class X students of the Modeling and Building Information Design Expertise Program at SMK Negeri 5 Medan. The population in this study were students of class X of the Building Modeling and Information Design Expertise Program, amounting to 65 students. The control class X TGB-1 consisted of 33 students and X TGB-2 32 students. Before carrying out the research the experimental class and the control class were given a pretest and at the end of the lesson they were given a posttest. The results of data analysis from the pretest results obtained by the experimental class, namely,  $X = 38,062$  with the highest score of 54 and the lowest 25. While in the control class  $X = 39,364$  with the highest score of 54 and the lowest 25. Then the experimental class was treated using the Project Based Learning model. and the control class was treated with conventional learning methods. The results of data analysis from the posttest results obtained by the experimental class, namely,  $X = 84,343$  with the highest score of 92 and the lowest 75. While in the control class  $X = 80,091$  with the highest score of 88 and the lowest 72. Hypothesis testing was carried out using the t-test formula, hypothetical calculation data with a significant level of 5% obtained  $t_{count} > t_{table}$  ( $5,383 > 1,670$ ), then  $H_a$  is accepted and  $H_0$  is rejected. Thus, it can be concluded that student learning outcomes using the Project Based Learning learning model provide a higher value than learning outcomes using conventional learning methods in engineering drawing subjects.

Keywords: Learning Outcomes, Project Based Learning, technical drawing