

## ABSTRAK

Khoirul Syahputra Daulay : *Perbedaan Hasil Belajar Teknik Pemesinan Bubut Dengan Menggunakan Model Pembelajaran Problem Based Learning (PBL) Dan Direct Intruction Pada Siswa Kelas XI Program Keahlian Teknik Pemesinan di SMK Negeri 2 Medan T.A 2019/2020.* Skripsi. Fakultas Teknik Universitas Negeri Medan. 2020

Penelitian ini bertujuan untuk mengetahui perbedaan hasil belajar teknik pemesinan bubut dari siswa yang diajarkan menggunakan model pembelajaran *Problem Based Learning* (PBL) dengan model pembelajaran *Direct Intruction* (DI) pada siswa kelas XI program keahlian teknik pemesinan SMK Negeri 2 Medan. Populasi penelitian ini adalah seluruh peserta didik kelas XI program keahlian teknik pemesinan SMK Negeri 2 Medan yang terdiri dari 4 kelas yang berjumlah 120 orang. Sampel penelitian ini adalah Kelas XI TP I diterapkan model pembelajaran *Problem Based Laerning* (PBL) sedangkan XI TP 2 diterapkan model pembelajaran *Direct Intruction* (DI), tiap kelas terdiri dari 30 siswa. Instrumen penelitian yang digunakan untuk mengumpulkan data adalah tes objektif pilihan berganda yang berjumlah 20 soal dengan 4 opsi jawaban. Dari data hasil belajar pos-test diperoleh rata-rata kelas eksperimen I = 83 dan eksperimen II = 78,5. Untuk melihat apakah data berdistribusi normal digunakan uji *Liliefors* pada taraf kepercayaan ( $\alpha$ ) = 05. Pada model pembelajaran *Problem Based Learning* (PBL) diperoleh  $L_{hitung}(0,0808) < L_{tabel}(0,161)$  pada kategori normal, dan pada model pembelajaran *Direct Intruction* (DI) diperoleh  $L_{hitung}(0,1162) < L_{tabel}(0,161)$  pada kategori normal. Untuk menguji homogenitas antara model pembelajaran *Problem Based Learning* (PBL) dan *Direct Intruction* (DI) diperoleh  $F_{hitung}(1,0881) < F_{tabel}(1,8608)$  dan disimpulkan bahwa varians sampel adalah homogen. Dengan menggunakan uji-t pada taraf nyata  $\alpha = 0,05$  dengan kriteria uji tolak  $H_0$  jika  $|t_{hitung}| > t_{tabel}$ . Dari hasil penelitian diperoleh,  $t_{hitung} = 2,076$  dan  $t_{tabel} = 1,672$  sehingga  $t_{hitung} > t_{tabel}$  dan diambil kesimpulan bahwa terdapat perbedaan hasil belajar Teknik Pemesinan Bubut siswa yang diajarkan menggunakan model pembelajaran *Problem Based Learning* (PBL) dengan model pembelajaran *Direct Intruction* (DI).

Kata kunci : Direct Intruction; Hasil Belajar; Problem Based Learning(PBL)

## ABSTRACT

Khoirul Syahputra Daulay: *Difference in Learning Outcomes of Lathe Machining Techniques Using Problem Based Learning (PBL) and Direct Instruction Learning Models in Class XI Students of Engineering Engineering Skills Program at SMK Negeri 2 Medan T.A 2019/2020. Thesis.* Faculty of Engineering, Medan State University. 2020

This study aims to determine the differences in learning outcomes of lathe machining techniques from students who are taught using the Problem Based Learning (PBL) learning model and the Direct Instruction (DI) learning model in class XI students of the SMK Negeri 2 Medan machining engineering expertise program. The population of this study was all students of class XI in the machining technical expertise program of SMK Negeri 2 Medan consisting of 4 classes totaling 120 people. The sample of this study was Class XI TP I applied the Problem Based Learning (PBL) learning model while XI TP 2 applied the Direct Instruction (DI) learning model, each class consisting of 30 students. The research instrument used to collect data was a multiple choice objective test totaling 20 questions with 4 answer options. From the post-test learning outcomes data obtained an average of experimental class I = 83 and experiment II = 78.5. To see whether the data are normally distributed, the Lilliefors test is used at the level of trust ( $\alpha$ ) = 0.05. In the Problem Based Learning (PBL) learning model, it is obtained that Lhitung (0.0808) < Ltable (0.161) in the normal category, and in the Direct Instruction learning model (DI) obtained Lhitung (0.1162) < Ltable (0.161) in the normal category. To test the homogeneity between Problem Based Learning (PBL) and Direct Instruction (DI) learning models, Fcount (1.0881) < Ftable (1.8608) was concluded and the sample variance was homogeneous. By using t-test at the real level  $\alpha$  = 0.05 with the criteria for rejecting  $H_0$  if | "t" \_ "count" | > "t" \_ "table". From the research results obtained, tcount = 2.076 and ttable = 1.672 so tcount > ttable and concluded that there are differences in learning outcomes of students Lathe Machining Techniques that are taught using the Problem Based Learning (PBL) learning model with the Direct Instruction (DI) learning model.

Keywords: Direct Instruction; Learning Outcomes; Problem Based Learning (PBL)