ABSTRAK

Hendra Syahputra. NIM 511311017. Penerapan Model Pembelajaran *Problem Based Instruction* (PBI) Dalam Meningkatkan Aktivitas Dan Hasil Belajar Mekanika Teknik Siswa Kelas X TGB SMK Negeri 1 Lubuk Pakam. *Skripsi*. Fakultas Teknik – Universitas Negeri Medan. 2016.

Penelitian ini merupakan Penelitian Tindakan Kelas (PTK) bertujuan untuk menerapkan model pembelajaran yang dapat meningkatkan aktivitas dan hasil belajar mata pelajaran Mekanika Teknik pada kompetensi dasar macam – macam tegangan dalam struktur bangunan di Kelas X Program Keahlian Teknik Gambar Bangunan SMK Negeri 1 Lubuk Pakam yang berjumlah 36 siswa. Prosedur tindakan dikemas ke dalam dua siklus yang masing-masing siklus terdiri dari dua kali pertemuan. Setiap siklus terdiri dari tahapan perencanaan (*planning*), tindakan (*acting*), pengamatan (*observing*) dan refleksi (*reflecting*). Pada siklus I mempelajari tentang tegangan tarik dan tegangan tekan. Pada siklus II mempelajari tentang tegangan geser dan tegangan lentur.

Data penelitian diambil dari tes hasil belajar siswa dan lembar observasi. Hasil uji coba instrumen penelitian dari 25 soal pada siklus I terdapat 21 soal valid, uji tingkat kesukaran tidak terdapat soal mudah, 19 soal sedang dan 6 soal sukar, uji daya pembeda tes didapat 4 soal jelek, 9 soal cukup dan 10 soal baik,dan 2 soal sangat baik. uji reliabilitas tes didapat 0,79 (tinggi). Pada siklus II dari 25 soal diperoleh 21 soal valid, uji tingkat kesukaran terdapat 18 soal sedang dan 7 soal sukar, uji daya pembeda tes didapat 6 soal buruk, 10 soal cukup dan 8 soal baik,dan 1 soal sangat baik. uji reliabilitas tes didapat 0,61 (tinggi). Penelitian dikatakan berhasil diukur berdasarkan rata-rata komulatif aktivitas dan hasil belajar siswa memperoleh nilai minimal 2,80 (70) dan tuntas secara klasikal jika seluruh kelas ≥ 75% siswanya tuntas.

Hasil penelitian menunjukkan aktivitas belajar siswa pada siklus I dengan hasil nilai rata-rata 67,36 dan prosentase kelulusan yaitu 63,89% meningkat pada siklus II menjadi 77,17 dan Presentase kelulusan yaitu 80,56%. Hasil belajar siswa terjadi peningkatan,pada siklus I dengan hasil nilai rata-rata sebesar kompetensi pengetahuan 2,78, kompetensi sikap 2,78 dan kompetensi keterampilan 2,63 dengan presentase kelulusan yaitu 63,89% meningkat pada siklus II menjadi 2,96 pada kompetensi pengetahuan, 2,96 pada kompetensi sikap dan 2,87 pada kompetensi keterampilan dengan Presentase kelulusan yaitu 83,33%. Berdasarkan hasil penelitian dapat disimpulkan bahwa dengan penerapan Model pembelajaran Problem Based Instruction (PBI) dapat meningkatkan aktivitas dan hasil belajar siswa pada Mata Pelajaran Mekanika Teknik kompetensi dasar macam – macam tegangan dalam struktur bangunan di Kelas X Program Keahlian Teknik Gambar Bangunan SMK Negeri 1 Lubuk Pakam.

Kata Kunci: *Model Pembelajaran Problem based Instruction, Aktivitas Siswa dan Hasil Belajar*

ABSTRACT

Hendra Syahputra. NIM 511311017. Application Problem Based Learning Model of Instruction (PBI) Increase In Activity And Results Learning Mechanics Class X TGB SMK Negeri 1 Launceston. Thesis. Faculty of Engineering - University of Medan. 2016.

This was a classroom action research (PTK) aims to implement the learning model that can increase the activity and achievement in Engineering Mechanics basic competencies kind of - kind of stress in structures in Class X program Architecture Engineering SMK Negeri 1 Launceston totaling 36 students. Procedures action packed into two cycles, each cycle consisting of two meetings. Each cycle consists of planning (planning), action (acting), observation (observing) and reflection (reflecting). In the first cycle of studying tension and compression stress. In the second cycle study of shear stress and bending stress.
Data were taken from the test results of student learning and observation. The trial results of research instrument about 25 in the first cycle there were 21 valid questionnaires, the level of difficulty of the test there is no easy matter, about 19 am and 6 about the difficult test of distinguishing tests obtained about 4 ugly, 9 and 10 about enough about the good, and 2 very good question. reliability tests obtained 0.79 (high). In the second cycle of about 25 was obtained 21 valid questions, there is the difficulty level of the test about 18 am and 7 a tough test distinguishing tests got worse about 6, 10 and 8 about enough about the good, and 1 excellent question. reliability tests obtained 0.61 (high). The study is successful is measured by the average cumulative activity and learning outcomes of students scored at least 2.80 (70) and accomplished classical if the entire class ≥ 75% of students complete.

The results showed that the activity of students in the first cycle of the average percentage of 67.36 and 63.89% approval which increased in the second cycle into 77.17 and 80.56 percentage approval is%. Revenue increased student learning, in the first cycle with the average yield of 2.78 competency knowledge, competencies and attitudes 2.78 2.63 competency skills with the percentage of 63.89% approval on the second cycle increased to 2.96 on competence knowledge, competence and attitude in 2.96 and 2.87 in the competency skills with the approval of the percentage of 83.33%. Based on the results of this study concluded that with the implementation of Problem Based Learning model Instruction (PBI) can increase the activity and student learning outcomes in subjects Mechanics basic competencies kind of - kind of stress in the structure of the building in Class X program Architecture Engineering SMK Negeri 1 Launceston ,

Keywords: Problem-based Learning Model Instruction, Student Activities and Learning Outcomes