

## ABSTRAK

**Eko Siswanto. NIM 5111511003. Penerapan Model Pembelajaran Kooperatif Tipe *Team Assisted Individualization* (TAI) Untuk Meningkatkan Aktivitas dan Hasil Belajar Ilmu Statika dan Tegangan Siswa Kelas X SMK Negeri 2 Kisaran . 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 Ilmu Statika dan Tegangan pada kompetensi dasar Menerapkan besaran skalar, vektor, sistem satuan, dan hukum newton dan besaran vektor untuk mempresentasikan gaya, momen dan kopel di Kelas X Program Keahlian Teknik Gambar Bangunan SMK Negeri 2 Kisaran T.P. 2015/2016 yang berjumlah 35 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*).

Data penelitian diambil dari tes hasil belajar siswa, lembar observasi dan lembar kerja siswa (LKS). Hasil uji coba instrumen penelitian dari 30 soal pada siklus I terdapat 25 soal valid, uji tingkat kesukaran terdapat 4 soal mudah, 16 soal sedang dan 5 soal sukar, uji daya pembeda tes didapat 5 soal buruk, 8 soal cukup, 11 soal baik, dan 1 soal baik sekali, uji reliabilitas tes didapat 0,88 (Sangat tinggi). Pada siklus II dari 30 soal diperoleh 25 soal valid, uji tingkat kesukaran terdapat 1 soal mudah, 15 soal sedang dan 9 soal sukar, uji daya pembeda tes didapat 10 soal buruk, 11 soal cukup dan 4 soal baik, uji reliabilitas tes didapat 0,87 (sangat tinggi). Penelitian dikatakan berhasil diukur berdasarkan rata-rata kumulatif aktivitas dan hasil belajar siswa memperoleh nilai minimal 75 dan tuntas secara klasikal jika seluruh kelas 100 % siswanya tuntas.

Hasil penelitian menunjukkan perolehan aktivitas belajar siswa pada siklus I sebesar 71,61 dengan persentase lulus 28,57 % meningkat pada siklus II dengan rerata kelas mencapai 82,25 dengan persentase lulus 100 %. Hasil Uji t menunjukkan terjadinya peningkatan yang signifikan terhadap aktivitas belajar yakni diperoleh t hitung (11,24) > t tabel (2.054) dengan taraf signifikan 5 %. Selanjutnya hasil belajar siswa, perolehan hasil belajar siswa pada siklus I mencapai 75,66 dengan persentase lulus 65,71 % meningkat pada siklus II menjadi 86,86 dengan persentase 100 %. Hasil Uji t menunjukkan terjadinya peningkatan yang signifikan terhadap hasil belajar yakni diperoleh t hitung (6,80) > t tabel (2.054) dengan taraf signifikan 5 %. Berdasarkan hasil penelitian dapat disimpulkan bahwa dengan penerapan Model Pembelajaran Kooperatif Tipe *Team Assisted Individualization* (TAI) dapat meningkatkan aktivitas dan hasil belajar Ilmu Statika dan Tegangan Siswa Kelas X Program Keahlian Teknik Gambar Bangunan SMK Negeri 2 Kisaran T.P. 2015/2016.

**Kata Kunci** : *Model Pembelajaran Kooperatif Team Assisted Individualization (TAI), Aktivitas Siswa dan Hasil Belajar.*

## ABSTRACT

***Eko Siswanto. Registration number 5111511003. Application of cooperative Learning Model Team Assisted Individualization (TAI) to Increase Activity and Learning Outcomes At The Statics Science and Voltage of Student Class X State Vocational High School 2 Kisaran Program The Architecture Engineering Expertise. Skripsi. Faculty of Technique - State University of Medan 2016.***

*This research represent the Research of Class Action aim to apply the study model which can improve the activity and the result of study subjects Science Statics and stress on basic competencies Applying scalar , vector , unit system , and Newton's laws and vectors for Presentation force , torque and coupling of Student Class X Program The Architecture Engineering Expertise of State Vocational High School 2 Kisaran in the teaching year 2015/2016 amounting to 35 students. Action procedure is created into two cycles which is each cycle consisted of twice meeting. Each cycle consisted by the planning step planning, acting, observing and reflecting.*

*File research taken away from the test of result learning student, sheet of observation and spread sheet student. Result of test-drive from research instrument 30 questions. At cycle I there are 25 valid question, test the difficulty level there are 4 easy question, 16 medium question and 5 difficult question, the distinguishing energy test got 5 ugly question, 8 question enough, 11 good question, and 1 very good question, the reliability test got 0,88 (very high). At cycle II from 30 questions obtained 25 valid question, the test difficulty level there are 1 easy question, 15 medium question and 9 difficult question, the distinguishing energy test got 10 ugly question, 11 enough question and 4 good problem, the reliability test got 0,87 (very high). Research told to succeed measured by pursuant to mean of cumulative activity and the result of learning student get the minimum value 75 and complete by classical if all class 100% the students are complete.*

*Result of research show activity learn student at cycle I equal to 71,61 with percentage pass 28,57 % mounting at cycle II with tired class average 82,25 with percentage pass 100 %. Result of test t show the significant improvement to learning activity that is obtained  $t(11,24) > t$  table (2,054) with significant level 5 %. Hereinafter result of learning student, at cycle I Mean result of learning student at tired cycle I 75,66 with percentage pass 65,71 % mounting at cycle II become 86,86 with percentage 100 %. Result of test t show the significant improvement to result learning that is obtained  $t(6,80) > t$  table ( 2.054) with significant level 5 %. Pursuant to inferential research the result that with the application of cooperative Learning Model Team Assisted Individualization (TAI) can improve the activity and result of learning student at Statics science and Voltage of Student Class X Program The Architecture Engineering Expertise State Vocational High School 2 Kisaran in the teaching year 2015/2016.*

***Keyword:*** Cooperative Learning Model Team Assisted Individualization (TAI), Student Activity and Result of Learning.