

ABSTRAK

Charlos Daniel Sianturi. NIM 5183111025. Penerapan Model Pembelajaran Kooperatif Tipe *Student Team Achievement Divisions* (STAD) Untuk Meningkatkan Hasil Belajar Mekanika Teknik pada Siswa Kelas X Program Keahlian Desain Pemodelan dan Informasi Bangunan di SMK Negeri 2 Binjai. Skripsi. Fakultas Teknik – Universitas Negeri Medan. 2023.

Penelitian ini merupakan Penelitian Tindakan Kelas (PTK) bertujuan menerapkan model pembelajaran yang dapat meningkatkan hasil belajar mata pelajaran mekanika teknik pada materi elemen – elemen struktur dan faktor yang mempengaruhi struktur bangunan berdasarkan kriteria desain dan pembebanan di kelas X Program Keahlian Desain Pemodelan dan Informasi Bangunan SMK Negeri 2 Binjai Tahun Ajaran 2023/2024 yang berjumlah 36 siswa. Prosedur tindakan dilaksanakan dalam dua siklus yang masing-masing siklus terdiri dari tiga kali pertemuan. Setiap siklus memiliki tahapan perencanaan (*planning*), pelaksanaan (*acting*), pengamatan (*observing*) dan refleksi (*reflecting*).

Data penelitian diambil dari tes hasil belajar siswa. Hasil uji coba instrument penelitian dari 50 soal pada siklus I terdapat 42 butir soal valid, uji realibilitas tes didapat 0,907 (sangat tinggi), uji tingkat kesukaran terdapat 40 soal mudah dan 2 butir soal sedang, uji daya pembeda tes didapat 28 soal cukup, 12 soal jelek, dan 2 soal baik. Pada siklus II dari 50 soal diperoleh 45 butir soal yang valid, uji realibilitas tes didapat 0,915 (sangat tinggi), uji tingkat kesukaran terdapat 35 soal mudah dan 10 butir soal sedang, uji daya pembeda tes didapat 19 soal cukup, 13 soal jelek, dan 13 soal baik. Penelitian dikatakan berhasil diukur berdasarkan nilai hasil belajar siswa memperoleh nilai minimal 70 sesuai dengan kriteria ketuntasan minimal yang ditetapkan dan terdapat peningkatan yang signifikan dari siklus I ke siklus II.

Hasil penelitian menunjukkan perolehan hasil belajar siswa pada siklus I mencapai 64,5 dengan persentase lulus 38,9 % meningkat pada siklus ke II menjadi 81,58 dengan persentase lulus 100%. Hasil uji t menunjukkan terjadinya peningkatan yang signifikan terhadap hasil belajar yaitu diperoleh t hitung (12,17) > t tabel (2,032) dengan taraf signifikan 5%. Berdasarkan hasil penelitian dapat disimpulkan bahwa dengan menerapkan model Pembelajaran Kooperatif tipe *Student Team Achievement Divisions* (STAD) dapat meningkatkan hasil belajar mekanika teknik kelas X Program Keahlian Desain Pemodelan dan Informasi Bangunan SMK Negeri 2 Binjai Tahun Ajaran 2023/2024.

Kata Kunci : Kooperatif, *Student Team Achievement Divisions*, Hasil Belajar

ABSTRACT

Charlos Daniel Sianturi. NIM 5183111025. Application of the Student Team Achievement Divisions (STAD) Cooperative Learning Model to Improve Engineering Mechanics Learning Outcomes for Class X Students in the Building Modeling and Information Design Skills Program at SMK Negeri 2 Binjai. Thesis. Faculty of Engineering – Medan State University. 2023.

This research is Classroom Action Research (PTK) aimed at applying a learning model that can improve learning outcomes in engineering mechanics subjects on structural elements and factors that influence building structures based on design criteria and loading in class X Vocational School Building Modeling and Information Design Skills Program Negeri 2 Binjai for the 2023/2024 academic year, totaling 36 students. The action procedure was carried out in two cycles, each cycle consisting of three meetings. Each cycle has stages of planning, acting, observing and reflecting.

Research data was taken from student learning achievement tests. The results of the research instrument trial of 50 questions in cycle I contained 42 valid questions, the test reliability test was found to be 0.907 (very high), the difficulty level test was 40 easy questions and 2 medium questions, the test's differentiating power test was found to be 28 sufficient questions, 12 bad questions, and 2 good questions. In cycle II, from 50 questions, 45 valid questions were obtained, the test reliability test was found to be 0.915 (very high), the difficulty level test was 35 easy questions and 10 medium questions, the test of the test's differentiating power was found to be 19 sufficient questions, 13 bad questions, and 13 good questions. The research was said to be successful, measured based on the student learning outcomes that obtained a minimum score of 70 in accordance with the minimum completeness criteria set and there was a significant increase from cycle I to cycle II.

The research results showed that student learning outcomes in the first cycle reached 64.5 with a pass percentage of 38.9%, increasing in the second cycle to 81.58 with a pass percentage of 100%. The results of the t test showed that there was a significant increase in learning outcomes, namely obtained t count $(12.17) > t \text{ table } (2.032)$ with a significance level of 5%. Based on the research results, it can be concluded that by implementing the Student Team Achievement Divisions (STAD) type Cooperative Learning model, it can improve the learning outcomes of class X Program Keahlian Desain Pemodelan dan Informasi Bangunan SMK Negeri 2 Binjai academic year 2023/2024.

Keywords : Cooperative, *Student Team Achievement Divisions*, Learning outcomes