

## ABSTRAK

**Reinagel Grainahan Marbun, NIM. 5212421003, Efektivitas E-Learning Berbasis Moodle Dengan Konten Visual Canva Untuk Meningkatkan Pemahaman Teknik Pemesinan Bubut Siswa Kelas Xi Program Keahlian Teknik Pemesinan Smk Negeri 1 Percut Sei Tuan. Skripsi, Jurusan Pendidikan Teknik Mesin, Fakultas Teknik, Universitas Negeri Medan.**

Penelitian ini bertujuan untuk mengetahui perbedaan hasil belajar siswa antara pembelajaran menggunakan e-learning berbasis Moodle dengan konten visual Canva dan pembelajaran konvensional pada mata pelajaran Teknik Pemesinan Bubut kelas XI SMK Negeri 1 Percut Sei Tuan, serta untuk mengetahui efektivitas media dan respon siswa. Penelitian ini menggunakan metode eksperimen dengan desain pretest-posttest control group design. Sampel penelitian berjumlah 58 siswa yang terdiri atas kelas eksperimen dan kelas kontrol.

Hasil penelitian menunjukkan bahwa rata-rata nilai posttest kelas eksperimen sebesar 84,60, lebih tinggi dibandingkan kelas kontrol sebesar 71,72. Hasil uji independent sample t-test menunjukkan nilai signifikansi  $p < 0,05$ , yang berarti terdapat perbedaan hasil belajar yang signifikan. Ketuntasan belajar kelas eksperimen mencapai 89,66%, sedangkan kelas kontrol hanya 31,03%. Hasil uji efektivitas menggunakan N-Gain menunjukkan bahwa e-learning berbasis Moodle dengan konten visual Canva berada pada kategori efektif. Respon siswa menunjukkan 86,21% berada pada kategori sangat positif.

**Kata kunci: *E-learning*, Moodle, Canva, Hasil Belajar, Teknik Pemesinan Bubut**



## ABSTRACT

**Reinagel Grainahan Marbun, NIM. 5212421003 The Effectiveness of Moodle-Based E-Learning with Canva Visual Content on Improving Learning Outcomes in Turning Machining Techniques of Grade XI Students at SMK Negeri 1 Percut Sei Tuan. Thesis, Department of Mechanical Engineering Education, Faculty of Engineering, State University of Medan.**

This study aims to determine the differences in student learning outcomes between Moodle-based e-learning integrated with Canva visual content and conventional learning, as well as to analyze the effectiveness of the learning media and student responses in the subject of Turning Machining Techniques for grade XI students at SMK Negeri 1 Percut Sei Tuan in the 2024/2025 academic year. This study employed an experimental research method using a pretest-posttest control group design. The research subjects consisted of 58 students divided into an experimental class and a control class.

Based on the results of the study, there was a significant improvement in student learning outcomes in the experimental class after the implementation of Moodle-based e-learning with Canva visual content. The average posttest score of the experimental class reached 84.60 with a learning mastery percentage of 89.66%, while the control class obtained an average score of 71.72 with a mastery percentage of 31.03%. The results of the independent samples t-test indicated a significant difference in learning outcomes ( $p < 0.05$ ). Furthermore, the N-Gain analysis showed that the learning media was categorized as effective. Students' responses toward the learning media were predominantly very positive, with a percentage of 86.21%.

**Keywords: E-learning, Moodle, Canva, Learning Outcomes, Turning Machining Techniques**

