

ABSTRAK

Hartati Christine Cahyani Ndruru. NIM 5213131032: *Pengembangan Multimedia Interaktif Terhadap Hasil Belajar Siswa Pada Mata Pelajaran Gambar Teknik Listrik Kelas X TITL SMK Negeri 14 Medan. Skripsi. Fakultas Teknik. Universitas Negeri Medan 2026.*

Penelitian ini bertujuan untuk: (1) Mengembangkan media pembelajaran interaktif berbasis Smart Apps Creator (SAC) pada mata pelajaran Gambar Teknik Listrik; (2) Mengetahui tingkat kelayakan media yang dikembangkan; dan (3) Mengetahui efektivitas media tersebut dalam meningkatkan hasil belajar siswa kelas X TITL di SMK Negeri 14 Medan. Latar belakang penelitian ini adalah rendahnya penggunaan media digital interaktif (77,78%) dan kesulitan siswa dalam memahami materi yang bersifat abstrak karena metode pembelajaran yang masih cenderung konvensional.

Metode penelitian yang digunakan adalah *Research and Development* (R&D) dengan model pengembangan ADDIE (*Analysis, Design, Development, Implementation, Evaluation*). Instrumen penelitian meliputi lembar validasi untuk ahli materi dan ahli media, angket respon siswa, serta tes hasil belajar kognitif dan psikomotorik.

Hasil penelitian menunjukkan bahwa: (1) Media pembelajaran interaktif berbasis SAC dinyatakan sangat layak digunakan dengan skor validasi ahli materi sebesar 92% dan 82%, ahli media sebesar 86% dan 91,3%, serta respon siswa mencapai 94,2%; (2) Media ini efektif meningkatkan hasil belajar siswa, ditunjukkan dengan nilai N-Gain pada aspek kognitif sebesar 0,6595 (kategori sedang) dan aspek psikomotorik sebesar 0,5724 (kategori sedang); (3) Uji statistik menunjukkan perbedaan signifikan antara nilai pretest dan posttest ($p < 0,05$), sehingga dapat disimpulkan bahwa penggunaan multimedia interaktif berbasis SAC mampu meningkatkan pemahaman konsep sekaligus keterampilan praktik siswa.

Kata Kunci: Multimedia Interaktif, Smart Apps Creator (SAC), Hasil Belajar, Gambar Teknik Listrik.

ABSTRACT

Hartati Christine Cahyani Ndruru. NIM 5213131032: Development of Interactive Multimedia on Student Learning Outcomes in Electrical Engineering Drawing Subject for Class X TITL at SMK Negeri 14 Medan. Thesis. Faculty of Engineering. Universitas Negeri Medan 2026.

This research aims to: (1) Develop interactive learning media based on Smart Apps Creator (SAC) for the Electrical Engineering Drawing subject; (2) Determine the feasibility level of the developed media; and (3) Determine the effectiveness of the media in improving the learning outcomes of Class X TITL students at SMK Negeri 14 Medan. The background of this research is the low usage of interactive digital media (77.78%) and the difficulties students face in understanding abstract material due to conventional teaching methods.

The research method employed is Research and Development (R&D) using the ADDIE development model (Analysis, Design, Development, Implementation, Evaluation). Research instruments include validation sheets for material and media experts, student response questionnaires, and learning outcome tests for both cognitive and psychomotor domains.

The results of the study indicate that: (1) The SAC-based interactive learning media is declared very feasible for use, with material expert validation scores of 92% and 82%, media expert scores of 86% and 91.3%, and a student response rate of 94.2%; (2) The media is effective in improving student learning outcomes, as evidenced by an N-Gain score of 0.6595 for the cognitive aspect (medium category) and 0.5724 for the psychomotor aspect (medium category); (3) Statistical tests show a significant difference between pretest and posttest scores ($p < 0.05$), leading to the conclusion that the use of SAC-based interactive multimedia is able to enhance both conceptual understanding and students' practical skills.

Keywords: Interactive Multimedia, Smart Apps Creator (SAC), Learning Outcomes, Electrical Engineering Drawing.