ABSTRAK

Deno Naldi Boangmanalu: Pengembangan E-Modul sebagai Media Pembelajaran pada Elemen Pemeliharaan/Perawatan Sistem Pemindah Tenaga Sepeda Motor oleh Siswa Kelas XI Teknik Sepeda Motor SMK Negeri 1 Percut Sei Tuan. Skripsi. Fakultas Teknik Universitas Negeri Medan. 2025.

Penelitian ini bertujuan mengembangkan e-modul berbasis Canva sebagai media pembelajaran pada materi pemeliharaan/perawatan sistem pemindah tenaga sepeda motor untuk siswa kelas XI Teknik Sepeda Motor SMK Negeri 1 Percut Sei Tuan, serta mengetahui tingkat kelayakan dan efektivitasnya. Metode penelitian menggunakan *Research and Development* (R&D) dengan model ADDIE.Subjek penelitian berjumlah 30 siswa. Data dikumpulkan melalui observasi, wawancara, angket, dan tes. Tahap uji coba dilakukan secara bertahap, mulai dari uji coba perorangan (3 siswa), kelompok kecil (9 siswa), hingga uji lapangan (30 siswa). Validasi dilakukan oleh enam validator, terdiri dari dua ahli materi, dua ahli media, dan dua ahli desain pembelajaran.Hasil validasi menunjukkan nilai kelayakan tinggi dengan skor 0,87 pada ahli materi, 0,96 pada ahli media, dan 0,99 pada ahli desain pembelajaran, sehingga e-modul dinyatakan valid dan layak digunakan. Efektivitas e-modul terlihat dari peningkatan nilai rata-rata siswa dari 58,95 (pre-test) menjadi 92,08 (post-test) dengan nilai N-Gain sebesar 0,81 kategori tinggi. Dengan demikian, e-modul yang dikembangkan terbukti valid, layak, dan efektif sebagai media pembelajaran.

Kata Kunci: Pengembangan E-modul pembelajaran, ADDIE, sistem pemindah tenaga sepeda motor

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ABSTRACT

Deno Naldi Boangmanalu: Development of E-Modules as Learning Media on Motorcycle Power Transmission System Maintenance/Care Elements by Class XI Motorcycle Engineering Students of SMK Negeri 1 Percut Sei Tuan. Thesis. Faculty of Engineering, State University of Medan. 2025.

This study aims to develop a Canva-based e-module as a learning medium for the maintenance and care of the motorcycle power transmission system for class XI Motorcycle Engineering students at SMK Negeri 1 Percut Sei Tuan and to determine its feasibility and effectiveness. The research method used Research and Development (R&D) with the ADDIE model. The research subjects were 30 students. Data were collected through observation, interviews, questionnaires, and tests. The trial stage was carried out in three phases: individual trials involving 3 students, small group trials involving 9 students, and field trials involving 30 students. Validation was conducted by six experts consisting of two material experts, two media experts, and two instructional design experts. The validation results showed high feasibility scores of 0.87 from material experts, 0.96 from media experts, and 0.99 from instructional design experts, indicating that the e-module was valid and suitable for use. The effectiveness of the e-module was demonstrated by an increase in students' average scores from 58.95 on the pre-test to 92.08 on the post-test, with an N-Gain score of 0.81 in the high category. Thus, the developed e-module proved to be valid, feasible, and effective as a learning medium.

Keywords: E-module development, ADDIE model, motorcycle power transmission system

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