

Yudha Dwi Mahendra. 2026. *Pengembangan PockEdu: Website E-learning Berbasis Gamifikasi untuk Pembelajaran Fisika Gelombang Kelas XI SMAN 1 Montong*. Skripsi, Program Studi Pendidikan Informatika, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Trunodjoyo Madura. Pembimbing I: Prita Dellia, S.Kom., M.Kom.

ABSTRAK

Penelitian ini bertujuan untuk mengembangkan PockEdu, media pembelajaran *e-learning* berbasis gamifikasi pada mata pelajaran Fisika materi Gelombang kelas XI di SMAN 1 Montong, mengetahui tingkat kelayakan media melalui validasi ahli materi dan ahli media, serta mengetahui respon siswa terhadap media yang dikembangkan. Penelitian ini menggunakan metode *Research and Development* (R&D) dengan model ADDIE yang terdiri dari tahap *analysis, design, development, implementation, dan evaluation*. Subjek penelitian terdiri atas ahli materi, ahli media, serta siswa kelas XI SMAN 1 Montong. Teknik pengumpulan data dilakukan melalui observasi, wawancara, dokumentasi, dan angket. Data dianalisis menggunakan teknik kuantitatif dan kualitatif. Hasil penelitian menunjukkan bahwa website *e-learning* PockEdu berbasis gamifikasi berhasil dikembangkan dan dinyatakan layak digunakan sebagai media pembelajaran. Hasil rekapitulasi validasi ahli materi memperoleh rata-rata persentase sebesar 92,5% dengan kategori sangat tinggi, sedangkan validasi ahli media memperoleh rata-rata persentase sebesar 86,76% dengan kategori tinggi. Hasil uji coba pengguna menunjukkan respon positif dari siswa, yaitu pada uji coba perorangan sebesar 95,2%, kelompok kecil 86,58%, dan kelompok besar 87,43% dengan kategori tinggi hingga sangat tinggi. Dengan demikian, website *e-learning* PockEdu berbasis gamifikasi layak digunakan sebagai media pembelajaran Fisika materi Gelombang kelas XI di SMAN 1 Montong.

Kata Kunci: *e-learning*, gamifikasi, Fisika, Gelombang, website, ADDIE

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ABSTRACT

This study aimed to develop PockEdu, a gamification-based e-learning website for Physics wave material for Grade XI students at SMAN 1 Montong, to determine its feasibility through material and media expert validation, and to identify students' responses to the developed media. This research employed a Research and Development (R&D) method using the ADDIE model, consisting of the analysis, design, development, implementation, and evaluation stages. The subjects were material experts, media experts, and Grade XI students of SMAN 1 Montong. Data were collected through observation, interviews, documentation, and questionnaires, and analyzed using quantitative and qualitative techniques. The results showed that the gamification-based PockEdu e-learning website was successfully developed and declared feasible as a learning medium. The recapitulation of material expert validation obtained an average percentage of 92.5%, categorized as very high, while media expert validation obtained an average percentage of 86.76%, categorized as high. User trials also showed positive responses, with percentages of 95.2% in the individual trial, 86.58% in the small-group trial, and 87.43% in the large-group trial, categorized as high to very high. Therefore, the gamification-based PockEdu e-learning website is feasible for learning Physics wave material for Grade XI students at SMAN 1 Montong.

Keywords: *e-learning, gamification, Physics, wave, website, ADDIE*