

**PENGEMBANGAN E-MODUL FISIKA INTERAKTIF BERBASIS SAINS,
LINGKUNGAN, TEKNOLOGI, DAN MASYARAKAT UNTUK
MENINGKATKAN HASIL BELAJAR FISIKA SMA/MA SISWA KELAS XI**

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ABSTRAK

Hasil belajar fisika siswa kelas XI SMA/MA masih rendah salah satu penyebabnya adalah bahan ajar yang digunakan materinya masih padat, bersifat tekstual, dan media yang digunakan masih kurang menarik. Berdasarkan permasalahan tersebut peneliti bertujuan (1) mengembangkan e-modul fisika intraktif berbasis sains, lingkungan, teknologi, dan masyarakat untuk meningkatkan hasil belajar fisika siswa kelas XI SMA/MA (2) medeskripsikan kepraktisan e-modul fisika interaktif berbasis Sains, lingkungan, teknologi dan masyarakat, dan (3) Mendeskripsikan Efektivitas e-modul fisika interaktif berbasis sains, lingkungan, teknologi dan masyarakat dalam meningkatkan hasil belajar fisika siswa kelas XI SMA/MA. Model pengembangan e-modul menggunakan pengembangan ADDIE (*Analysis, Design, Development, Implementation, and Evaluation*). Subjek dalam penelitian ini adalah 2 dosen fisika, 5 guru kepraktisan, dan 32 siswa SMA Negeri 2 Banjar. Teknik analisis data yang digunakan adalah deskriptif kuantitatif. Hasil penelitian yang diperoleh (1) e-modul fisika interaktif sangat layak digunakan dengan nilai rerata ahli media 0,92 dan ahli materi 0,96 kategori sangat layak, (2) e-modul fisika interaktif sangat praktis digunakan pada pembelajaran dengan nilai rerata praktisi guru 93% kategori sangat praktis dan angket respon siswa 75% kategori Praktis, dan (3) e-modul fisika intraktif cukup efektif untuk meningkatkan hasil belajar fisika siswa dengan nilai yang diperoleh 0,44 kategori sedang. Berdasarkan hasil analisis data yang telah dipaparkan diatas dapat disimpulkan bahwa e-modul berbasis SLTM layak digunakan, praktis, dan cukup efektif dalam meningkatkan hasil belajar fisika kelas XI SMA/MA.

Kata-kata kunci : E-modul berbasis SLTM, Model ADDIE, Hasil Belajar

**DEVELOPMENT OF INTERACTIVE E-MODULES PHYSICS BASED ON
SCIENCE, ENVIRONMENT, TECHNOLOGY, AND SOCIETY TO
IMPROVE THE LEARNING OUTCOMES OF HIGH SCHOOL / MA
PHYSICS FOR GRADE XI STUDENTS**

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ABSTRACT

The results of learning physics for grade XI high school / MA students are still low, one of the reasons is that the teaching materials used are still dense, textual, and the media used is still not attractive. Based on these problems, researchers aim to (1) develop attractive physics e-modules based on science, environment, technology, and society to improve physics learning outcomes of grade XI high school / MA students, (2) describe the practicality of interactive physics e-modules based on science, environment, technology and society, and (3) describe the effectiveness of s-based interactive physics e-modules AINS, environment, technology and society in improving physics learning outcomes of grade XI high school / MA students. The e-module development model uses ADDIE (Analysis, Design, Development, Implementation, and Evaluation) development. The subjects in this study were 2 physics lecturers, 5 practicality teachers, and 32 students of SMA Negeri 2 Banjar. The data analysis technique used is quantitative descriptive. The results of the research obtained (1) the interactive physics e-module is very feasible to be used with an average value of media experts of 0.92 and material experts of 0.96 in the very feasible category, (2) the interactive physics e-module is very practical to use in learning with an average value of teacher practitioners of 93% of the very practical category and student response questionnaires of 75% of the Practical category, and (3) the attractive physics e-module is effective enough to improve student physics learning outcomes with a value obtained of 0.44 medium category. Based on the results of data analysis described above, it can be concluded that SLTM based e-modules are feasible to use, practical, and quite effective in improving the learning outcomes of physics class XI SMA/MA.

Keywords: SLTM-based E-module, ADDIE Model, Learning Outcomes