ABSTRAK

PENGEMBANGAN *E-LEARNING* MENGGUNAKAN TEKNOLOGI *FRAMEWORK CODEIGNITER* UNTUK MENDUKUNG PEMBELAJARAN INFORMATIKA KELAS X DI SMA NEGERI 1 TANJUNG RAJA

Oleh:

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Penelitian ini bertujuan untuk mengembangkan sistem pembelajaran *e-learning* pada mata pelajaran Informatika kelas X di SMA Negeri 1 Tanjung Raja serta menguji tingkat kelayakan sebagai sistem pembelajaran. Metode penelitian yang digunakan adalah *Research and Development* (R&D) dengan model pengembangan ADDIE yang meliputi tahap *Analysis, Design, Development, Implementation, and Evaluation*. Sistem dibangun menggunakan *framework CodeIgniter* dan MySQL. Pengumpulan data dilakukan melalui observasi, wawancara, dan kuesioner (angket). Teknik analisis data menggunakan *Black Box Testing* untuk menguji fungsionalitas sistem dan *System Usability Scale* (SUS) untuk mengukur tingkat kegunaan sistem dari sudut pandang pengguna. Subjek penelitian terdiri atas guru dan siswa kelas X mata pelajaran Informatika di SMA Negeri 1 Tanjung Raja. Hasil pengujian menggunakan instrumen *Black Box Testing* menunjukkan bahwa seluruh fungsi sistem berjalan dengan baik dengan tingkat keberhasilan sebesar 100%, yang termasuk dalam kategori "sangat baik". Sementara itu, hasil pengujian menggunakan instrumen angket *System Usability Scale* memperoleh skor rata-rata sebesar 89% yang berada pada kategori "*Excellent*" dan tingkat penerimaan "*Acceptable*". Berdasarkan hasil tersebut, dapat disimpulkan bahwa sistem *e-learning* yang dikembangkan dinyatakan "sangat layak" digunakan dalam proses pembelajaran mata pelajaran Informatika kelas X di SMA Negeri 1 Tanjung Raja.

Kata Kunci : addie, *black box testing, codeigniter, e-learning*, *system usability scale*

ABSTRACT

DEVELOPMENT OF E-LEARNING USING THE CODEIGNITER FRAMEWORK TECHNOLOGY TO SUPPORT GRADE X INFORMATICS LEARNING AT SMA NEGERI 1 TANJUNG RAJA

By:

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This study aims to develop an e-learning system for the Informatics subject for tenth-grade students at SMA Negeri 1 Tanjung Raja and to evaluate its feasibility as a learning system. The research method employed was Research and Development (R&D) using the ADDIE development model, which consists of the stages of Analysis, Design, Development, Implementation, and Evaluation. The system was developed using the CodeIgniter framework and MySQL . Data were collected through observation, interviews, and questionnaires. Data analysis techniques included Black Box Testing to examine the system's functionality and the System Usability Scale (SUS) to measure system usability from the users' perspective. The research subjects consisted of Informatics teachers and tenth-grade students at SMA Negeri 1 Tanjung Raja. The results of the Black Box Testing showed that all system functions operated properly with a success rate of 100%, which falls into the "very good" category. Meanwhile, the System Usability Scale questionnaire results obtained an average score of 89%, categorized as "Excellent" with an "Acceptable" level of acceptance. Based on these findings, it can be concluded that the developed e-learning system is "highly feasible" for use in the learning process of the Informatics subject for tenth-grade students at SMA Negeri 1 Tanjung Raja.

Keywords : *addie, black box testing, codeigniter, e-learning, system usability scale*