ABSTRACT

Sarwandi. 2019. ***Development of Mobile-Based Project Based Learning E-Module Project Management Courses in Vocational Education.***

Learning is a process of interaction between students and educators and learning resources, one of them is teaching material. Teaching materials must be self instructional, self contained, stand alone, adaptive, and user friendly. However, teaching materials are currently not sufficient to be used, so it needs to be developed so that the learning process is more practical and effective. The purpose of this study is to produce mobile-based e-module project based learning in the Project Management course. In addition, this study also aims to determine the validity, practicality and effectiveness of e-modules that have been developed.

This research used Research and Development (R & D) research method with 4-D (Four-D) model which consists of four stages, namely: Define, Design, Develop, Dessiminate. The type of data used is primary data by giving questionnaire questionnaires to Experts, Lecturers, and Students. The data analysis technique used is descriptive data analysis technique by describing validity, practicality, and effectiveness of e-module project based learning.

The results of this research and development have resulted in a mobile-based e-module project based learning in the Project Management course. The validity of e-module project based learning is declared valid based on material validity with a value of 0.83 (>0.66) and media validity with a value of 0.87 (>0.66). The practicality of e-module project based learning based on the response of 4 lecturers is stated to be very practical with an average value of 89, and based on the response of 45 students stated to be very practical with an average score of 86. The effectiveness of e-module project based learning is declared effective in improving student learning outcomes with a Gain Score of 0.44 (Medium). Based on the research findings, it can be concluded that e-module mobie based project based learning is valid, practical, and effective.

Keywords: *E-Module, Project Based Learning, Mobile Based, Project Management, Vocational Education.*

ABSTRAK

Sarwandi. 2019. Pengembangan E-Modul *Project Based Learning* Berbasis Mobile Mata Kuliah Manajemen Proyek Pada Pendidikan Vokasi. Tesis Pascasarjana Fakultas Teknik Universitas Negeri Padang.

Pembelajaran merupakan proses interaksi peserta didik dengan pendidik dan sumber belajar, salah satunya bahan ajar. Bahan ajar harus bersifat *self instructional, self contained, stand alone, adaptive,* dan *user friendly*. Namun bahan ajar saat ini belum memadai untuk digunakan, maka perlu untuk dikembangkan agar proses pembelajaran lebih praktis dan efektif. Tujuan dari penelitian ini untuk menghasilkan e-modul *project based learning* berbasis mobile pada mata kuliah Manajemen Proyek. Selain itu, penelitian ini juga bertujuan untuk mengetahui validitas, praktikalitas, dan efektivitas e-modul yang telah dikembangkan.

Penelitian ini menggunakan metode penelitian *Research and Development* (R & D) dengan model 4-D (*Four-D*) yang terdiri dari empat tahapan, yaitu: *Define, Design, Develop, Dessiminate*. Jenis data yang digunakan yaitu data primer dengan memberikan angket kuesioner kepada para Ahli, Dosen, dan Mahasiswa. Teknik analisis data yang digunakan yaitu teknik analisis data deskriptif dengan mendeskripsikan kevalidan, kepraktisan, keefektifan e-modul *project based learning*.

Hasil penelitian dan pengembangan ini adalah telah menghasilkan e-modul *project based learning* berbasis mobile pada mata kuliah Manajemen Proyek. Validitas e-modul *project based learning* dinyatakan valid berdasarkan validitas materi dengan nilai 0,83 (>0,66) dan validitas media dengan nilai 0,87 (>0,66). Praktikalitas e-modul *project based learning* berdasarkan respon 4 Dosen dinyatakan Sangat Praktis dengan nilai rata-rata 89, dan berdasakan respon 45 Mahasiswa dinyatakan Sangat Praktis dengan nilai rata-rata 86. Efektivitas e-modul *project based learning* dinyatakan efektif dalam meningkatkan hasil belajar mahasiswa dengan nilai Gain Score 0,44 (Sedang). Berdasarkan temuan penelitian dapat disimpulkan bahwa e-modul *project based learning* berbasis mobie ini valid, praktis, dan efektif.

Kata Kunci: E-Modul, *Project Based Learning*, Berbasis Mobile, Manajemen Proyek, Pendidikan Vokasi