

ABSTRAK

Rosimah Pulungan, NIM, 8236176001. (2023) Pengembangan E-Modul Interaktif Berbasis Project Based Learning Pada Materi Fluida Dinamis Kelas XI SMA

Penggunaan e-modul interaktif berbasis project based learning diharapkan dapat meningkatkan motivasi dan hasil belajar siswa dalam pembelajaran fisika. Penelitian ini bertujuan untuk mengetahui tingkat keefektifan, kepraktisan, kelayakan dan menghasilkan e-modul interaktif berbasis project based learning untuk pembelajaran fisika di SMA. Penelitian ini merupakan penelitian kuasi-eksperimen atau pra-eksperimen (Pre-Experimental Design) dengan sampel kelas XI yang sedang menempuh pendidikan fisika di SMA Negeri 1 Panyabungan Utara sebanyak 4 guru dan 50 mahasiswa, yang dipilih menggunakan teknik purposive sampling. Instrumen penelitian berupa 15 soal pilihan ganda dan angket motivasi belajar. Hasil belajar siswa setelah menggunakan e-modul interaktif berbasis project based learning lebih tinggi dibandingkan Kriteria Ketuntasan Minimal dengan nilai signifikansi α ($0,001 < 0,05$) dan $t_{hitung} > t_{tabel}$ ($7,074 > 1,714$). Tingkat motivasi belajar siswa dengan menggunakan e-modul interaktif berbasis project based learning mencapai 85,2% dengan kategori sangat termotivasi.

Kata kunci: analisis kebutuhan, e-modul interaktif, PjBL

ABSTRACT

Rosimah Pulungan, NIM 8236176001 (2023). Analysis Of The Need For Developing Interactive E-Modules Based On Project Based Learning (PjBL) In Physics Learning In SMA

The use of interactive e-modules based on project-based learning is expected to improve student motivation and learning outcomes in physics. This study aims to determine the effectiveness, practicality, feasibility, and yield of interactive e-modules based on project-based learning for physics learning in high school. This study was a quasi-experimental or pre-experimental design. The sample consisted of 4 teachers and 50 students from grade 11 studying physics at SMA Negeri 1 Panyabungan Utara, selected using a purposive sampling technique. The research instruments consisted of 15 multiple-choice questions and a learning motivation questionnaire. Student learning outcomes after using interactive e-modules based on project-based learning were higher than the Minimum Completion Criteria with a significance value of α ($0.001 < 0.05$) and $t_{\text{count}} > t_{\text{table}}$ ($7.074 > 1.714$). The level of student learning motivation using interactive e-modules based on project-based learning reached 85.2%, categorized as highly motivated.

Keywords: needs analysis, interactive e-modules, PjBL

