PENGEMBANGAN MEDIA *E-LEARNING* BERBASIS *MOODLE* PADA MATERI OPTIK GEOMETRI GUNA MENGHADAPI REVOLUSI INDUSTRI 4.0

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ABSTRAK

Penelitian ini bertujuan untuk menghasilkan media *e-learning* berbasis *moodle* yang layak digunakan sebagai media pembelajaran pada materi optik geometri, mengetahui pengaruh media *e-learning* dengan *moodle* terhadap hasil belajar, dan mengetahui respon peserta didik terhadap media *e-learning* dengan *moodle* yang dikembangkan.

Penelitian ini merupakan penelitian pengembangan atau R*esearch and Development* (R&D) dengan model pengembangan S. Thiagarajan 4-D yang terdiri dari empat tahap, yaitu *define* (pendefinisian), *design* (perancangan), *develop* (pengembangan), dan *disseminate* (penyebaran). Media yang dikembangkan dinilai kelayakannya oleh ahli materi, ahli media, ahli teknologi, guru fisika, uji coba satu lawan satu, uji coba kelompok kecil, dan uji coba lapangan, serta respon peserta didik. Media *e-learning* berbasis *moodle* diterapkan pada kelas XII IPA 1 sebagai kelas eksperimen dan kelas XII IPA 2 sebagai kelas kontrol. Teknik pengumpulan data menggunakan angket, wawancara, observasi, *pretest* dan *posttest*. Data yang diperoleh dianalisis secara deskriptif kualitatif dan kuantitatif.

Hasil penilaian media yang dikembangkan menurut para ahli termasuk dalam kategori Sangat Layak digunakan sebagai media pembelajaran. Hasil belajar peserta didik yang menggunakan media *e-learning* berbasis *moodle* lebih baik dibandingkan dengan hasil belajar peserta didik tanpa menggunakan media *e-learning* berbasis *moodle*. Respon peserta didik terhadap media *e-learning* berbasis *moodle* secara keseluruhan termasuk dalam kriteria sangat layak.

Kata Kunci: Media *E-learning* Berbasis *Moodle*, Hasil Belajar, Respon Peserta Didik

DEVELOPMENT OF MOODLE-BASED E-LEARNING MEDIA ON GEOMETRY OPTICAL MATERIALS FOR INDUSTRIAL REVOLUTION 4.0

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ABSTRACT

This research aims to produce moodle-based e-learning media that are suitable to be used as learning media on geometric optical material, knowing the effect of e-learning media with moodle on learning outcomes, and knowing the response of students to e-learning media with moodle developed.

This research is a research or development (R & D) research with the development model of S. Thiagarajan 4-D which consists of four stages, define, design , develop, and disseminate. The media developed was assessed for its feasibility by material experts, media experts, technology experts, physics teachers, one on one trials, small group trials, and field trials, as well as student responses. Moodle-based e-learning media was applied to class XII IPA 1 as the experimental class and class XII IPA 2 as the control class.Data collection techniques used questionnaires, interviews, observation, pretest and posttest. The data obtained were analyzed descriptively qualitatively and quantitatively.

The results of the assessment of the media developed according to the experts included in the Very Worthy category are used as learning media. Learning outcomes of students who use moodle-based e-learning media are better than students' learning outcomes without using moodle-based e-learning media. The response of students to moodle-based e-learning media as a whole is included in the criteria of very feasible.

Keywords*: E-learning Media Based on Moodle, Learning Outcomes, Students' Response*