

ABSTRAK

Martini, Ni Ketut dkk, (2026), Pengembangan E-Modul Interaktif Berbasis Problem Based Learning Untuk Meningkatkan Literasi Digital Siswa SMK Pada Mata Pelajaran Informatika. Tesis, Teknologi Pendidikan, Program Pascasarjana, Universitas Pendidikan Ganesha.

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Kata-kata kunci: E-Modul Interaktif, Problem Based Learning, Literasi Digital, Informatika, ADDIE.

Penelitian ini bertujuan untuk mengembangkan e-modul interaktif berbasis Problem Based Learning (PBL) pada mata pelajaran Informatika serta mengetahui validitas, kepraktisan, dan efektivitasnya dalam meningkatkan literasi digital peserta didik kelas X di SMK Negeri 3 Bangli. Penelitian ini dilatarbelakangi oleh rendahnya kemampuan literasi digital peserta didik, penggunaan media pembelajaran yang masih konvensional, serta belum tersedianya media pembelajaran interaktif yang mendukung pembelajaran berbasis digital.

Penelitian ini merupakan penelitian dan pengembangan (Research and Development) dengan menggunakan model ADDIE yang terdiri atas tahap Analyze, Design, Development, Implementation, dan Evaluation. Subjek penelitian meliputi dua ahli isi, dua ahli media/desain pembelajaran, serta peserta didik kelas X SMK Negeri 3 Bangli. Uji coba dilakukan melalui uji perorangan, uji kelompok kecil, dan uji lapangan pada 30 peserta didik menggunakan desain one-group pretest-posttest. Teknik pengumpulan data menggunakan observasi, wawancara, angket, dan tes. Data dianalisis secara deskriptif kuantitatif dan inferensial menggunakan uji paired sample t-test.

Hasil penelitian menunjukkan bahwa e-modul interaktif berbasis PBL yang dikembangkan memenuhi kriteria valid berdasarkan penilaian ahli isi dan ahli media/desain pembelajaran. Hasil uji kepraktisan menunjukkan bahwa e-modul berada pada kategori sangat praktis berdasarkan respon guru dan peserta didik. Hasil uji efektivitas menunjukkan adanya peningkatan kemampuan literasi digital peserta didik setelah menggunakan e-modul interaktif berbasis PBL, yang ditunjukkan melalui peningkatan nilai post-test dibandingkan pre-test. Dengan demikian, e-modul interaktif berbasis PBL dinyatakan valid, praktis, dan efektif digunakan dalam pembelajaran Informatika untuk meningkatkan literasi digital peserta didik SMK.

ABSTRACT

Martini, Ni Ketut et al, (2026), Development of a Problem Based Learning-Based Interactive E-Module to Improve Digital Literacy of Vocational Students in Informatics Tesis, Educational Technology, Postgraduate Programme, Universitas Pendidikan Ganesha.

This thesis has been approved and reviewed by Supervisor I: Dr. I Wayan Sukra Warpala, S.Pd.,M.Sc. and Supervisor II: Prof. Dr. I Gde Wawan Sudatha, S.Pd., S.T., M.Pd.

Keywords: Interactive E-Module, Problem Based Learning, Digital Literacy, Informatics, ADDIE.

This study aimed to develop an interactive e-module based on Problem Based Learning (PBL) for Informatics subjects and to determine its validity, practicality, and effectiveness in improving the digital literacy of tenth-grade students at SMK Negeri 3 Bangli. The study was motivated by the low level of students' digital literacy, the continued use of conventional learning media, and the lack of interactive learning media that support digital-based learning.

This research employed a Research and Development (R&D) approach using the ADDIE model, consisting of the stages of Analyze, Design, Development, Implementation, and Evaluation. The research subjects included two content experts, two media/design experts, and tenth-grade students of SMK Negeri 3 Bangli. The trials were conducted through individual testing, small-group testing, and field testing involving 30 students using a one-group pretest-posttest design. Data were collected through observation, interviews, questionnaires, and tests. The data were analyzed using descriptive quantitative and inferential statistics with a paired sample t-test.

The results showed that the developed PBL-based interactive e-module met the validity criteria based on evaluations from content experts and media/design experts. The practicality test results indicated that the e-module was categorized as highly practical based on teachers' and students' responses. The effectiveness test results demonstrated an improvement in students' digital literacy skills after using the PBL-based interactive e-module, as indicated by higher post-test scores compared to pre-test scores. Therefore, the developed PBL-based interactive e-module was considered valid, practical, and effective for use in Informatics learning to improve vocational high school students' digital literacy.