

Suyadnya, I Gusti Bagus (2024), *E-Modul Berbasis Problem Based Learning Mata Pelajaran Informatika Kelas X SMA Negeri 1 Tejakula*. Tesis, Teknologi Pendidikan, Program Pasca Sarjana, Universitas Pendidikan Ganesha.

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Kata kunci: E-Modul, *Problem Based Learning*, Informatika, Berpikir kritis

ABSTRAK

Penelitian ini dilatarbelakangi dari kurangnya bahan ajar yang mampu meningkatkan keaktifan dan kemampuan berpikir kritis siswa. Tujuan penelitian ini adalah untuk mengembangkan e-modul berbasis *problem based learning* mata pelajaran informatika kelas X SMA Negeri 1 Tejakula yang valid, praktis dan efektif meningkatkan kemampuan berpikir kritis siswa.

Jenis penelitian yang digunakan adalah *Research and Development (R&D)* dengan model pengembangan ADDIE (*Analyse, Design, Development, Implementation, and Evaluate*). Data yang dikumpulkan dalam bentuk data kuantitatif dan kualitatif, dengan instrumen angket digunakan untuk validasi para ahli dan uji kepraktisan. Instrumen tes digunakan untuk *pretest* dan *posttest* siswa kelas X 1 SMA Negeri 1 Tejakula dengan teknik analisis statistik inferensial (uji-t).

Hasil penelitian yang diperoleh yaitu; 1). E-Modul berbasis *problem based learning* mata pelajaran informatika kelas X SMA Negeri 1 Tejakula berhasil dikembangkan melalui tahapan ADDIE 2). E-Modul dinyatakan valid dengan hasil review ahli isi pembelajaran sebesar 92% (sangat baik), ahli media pembelajaran sebesar 91% (sangat baik), dan ahli desain pembelajaran sebesar 93% (sangat baik). E-Modul dinyatakan praktis dengan hasil review sebesar 96.5% (sangat baik). E-Modul dinyatakan efektif meningkatkan kemampuan berpikir kritis siswa. Uji keefektifan dilakukan dengan mengukur hasil uji-t dengan taraf signifikansi $\alpha = 0.05$, diperoleh nilai Sig (2-tailed) sebesar $0,001 < 0,05$. Dengan demikian terdapat perbedaan yang signifikan kemampuan berpikir kritis siswa sebelum dan sesudah diterapkan e-modul. Nilai rata-rata *pretest* sebesar 65.16 dan nilai rata-rata *posttest* sebesar 80.93. Berdasarkan hasil penelitian dapat disimpulkan bahwa e-modul berbasis *problem based learning* mata pelajaran informatika kelas X SMA Negeri 1 Tejakula valid, praktis dan efektif meningkatkan kemampuan berpikir kritis siswa.

Suyadnya, I Gusti Bagus (2024), *E-Module Based on Problem Based Learning for Class X Informatics Subjects at SMA Negeri 1 Tejakula*. Thesis, Educational Technology, Postgraduate Program, Ganesha University of Education.

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Keywords: E-Module, Problem Based Learning, Informatics, Critical thinking

ABSTRACT

This research was motivated by the lack of teaching materials that could increase students' activeness and critical thinking abilities. This research aims to develop an e-module based on problem based learning for class X informatics at SMA Negeri 1 Tejakula that is valid, practical and effective in improving students' critical thinking skills.

The type of research used is Research and Development (R&D) with the ADDIE (Analyse, Design, Development, Implementation, and Evaluate) development model. The data collected is in the form of quantitative and qualitative data, with questionnaire instruments used for expert validation and practicality testing. The test instrument was used for the pretest and posttest of class X 1 students at SMA Negeri 1 Tejakula using inferential statistical analysis techniques (t-test).

The research results obtained were; 1). E-Module based on problem based learning for class X informatics subjects at SMA Negeri 1 Tejakula was successfully developed through the ADDIE 2 stage). The e-Module was declared valid with review results from learning content experts at 92% (very good), learning media experts at 91% (very good), and learning design experts at 93% (very good). The E-Module was declared practical with a review result of 96.5% (very good). The e-Module was declared effective in improving students' critical thinking skills. The effectiveness test was carried out by measuring the results of the t-test with a significance level of $\alpha = 0.05$, obtaining a Sig (2-tailed) value of $0.001 < 0.05$. Thus, there is a significant difference in students' critical thinking abilities before and after implementing the e-module. The average pretest score was 65.16 and the average posttest score was 80.93. Based on the research results, it can be concluded that the e-module based on problem based learning for class X informatics at SMA Negeri 1 Tejakula is valid, practical and effective in improving students' critical thinking skills.