

ABSTRAK

HERDIANA BR SITOMPUL. Pengembangan *E-Modul* Berbasis *Problem Based Learning* Terintegrasi Gamifikasi Untuk Meningkatkan Keterampilan Berpikir Kritis Dan Hasil Belajar Akuntansi Perusahaan Dagang Siswa Kelas XI Akuntansi SMK Negeri 1 Patumbak Tahun Ajaran 2025/2026.

Tantangan pembelajaran abad ke-21 menuntut pengembangan keterampilan berpikir kritis dan peningkatan hasil belajar siswa. Namun, kemampuan berpikir kritis dan hasil belajar siswa masih tergolong rendah, khususnya pada pembelajaran Akuntansi Perusahaan Dagang yang menuntut kemampuan analitis dan pemahaman konseptual. Permasalahan ini dipengaruhi oleh proses pembelajaran yang masih berpusat pada guru serta minimnya keterlibatan aktif siswa. Oleh karena itu, diperlukan inovasi pembelajaran yang mampu mendorong partisipasi aktif siswa melalui penerapan pendekatan *problem based learning* yang didukung media pembelajaran digital interaktif berupa *e-modul* terintegrasi gamifikasi. Penelitian ini bertujuan untuk mengembangkan *e-modul* berbasis *problem based learning* terintegrasi gamifikasi yang memenuhi kriteria layak, praktis, dan efektif dalam meningkatkan keterampilan berpikir kritis dan hasil belajar siswa pada materi pencatatan jurnal khusus serta posting ke buku besar di kelas XI Akuntansi SMK Negeri 1 Patumbak. Metode penelitian menggunakan pendekatan *Research and Development* (R&D) dengan model ADDIE (*Analysis, Design, Development, Implementation, Evaluation*) yang dipadukan dengan desain eksperimen. Penelitian dilaksanakan di SMK Negeri 1 Patumbak pada tahun ajaran 2025/2026 dengan subjek seluruh siswa kelas XI Akuntansi berjumlah 69 orang menggunakan teknik total sampling. Pengujian produk meliputi uji kelayakan oleh ahli, uji kepraktisan oleh guru dan siswa, serta uji efektivitas melalui desain eksperimen *pretest-posttest control group*. Teknik analisis data dilakukan secara deskriptif dan inferensial melalui uji validitas, kepraktisan, ANOVA, *effect size* (Cohen's d), ANCOVA, MANOVA, MANCOVA, serta uji lanjutan. Hasil penelitian menunjukkan bahwa *e-modul* yang dikembangkan memenuhi kriteria kelayakan, kepraktisan, dan keefektifan. *E-modul* dinyatakan layak dengan skor 83% ($\geq 61\%$) dan praktis dengan skor 90,5% ($\geq 70\%$). Pada aspek keefektifan, hasil uji ANOVA, ANCOVA, dan MANOVA menunjukkan nilai signifikansi 0,000 ($\leq 0,05$), yang berarti terdapat perbedaan signifikan antara kelas eksperimen dan kelas kontrol, baik sebelum maupun setelah dikontrol kemampuan awal siswa. Temuan ini diperkuat oleh nilai *effect size* Cohen's d sebesar 0,94 dan 1,02 (kategori besar), serta hasil uji MANCOVA dengan signifikansi 0,000 ($\leq 0,05$) dan kontribusi pengaruh sebesar 52,1%, yang menunjukkan bahwa *e-modul* memberikan pengaruh yang signifikan dan kuat terhadap keterampilan berpikir kritis dan hasil belajar siswa. Berdasarkan temuan tersebut, disimpulkan bahwa *e-modul* berbasis *problem based learning* terintegrasi gamifikasi dinyatakan layak, praktis, dan efektif digunakan dalam pembelajaran akuntansi.

Kata kunci: *Problem Based Learning, E-Modul, Gamifikasi, Keterampilan Berpikir Kritis, Hasil Belajar, Akuntansi.*

ABSTRACT

HERDIANA BR SITOMPUL. *Development of a Problem Based Learning E-Module Integrated with Gamification to Enhance Critical Thinking Skills and Learning Outcomes in Trading Company Accounting among Grade XI Accounting Students at SMK Negeri 1 Patumbak, Academic Year 2025/2026.*

The challenges of 21st-century learning demand the development of critical thinking skills and the improvement of student learning outcomes. However, students' critical thinking skills and learning outcomes remain relatively low, particularly in Trading Company Accounting, which requires analytical skills and conceptual understanding. This issue is influenced by teacher-centered learning processes and the limited active participation of students. Therefore, innovative learning approaches are needed to encourage active student engagement through the implementation of a Problem-Based Learning approach supported by interactive digital learning media in the form of a gamified e-module. This study aims to develop a Problem-Based Learning-based e-module integrated with gamification that meets the criteria of validity, practicality, and effectiveness in improving students' critical thinking skills and learning outcomes on the topics of special journal recording and posting to the general ledger for Grade XI Accounting students at SMK Negeri 1 Patumbak. This research employed a Research and Development (R&D) approach using the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation), combined with an experimental design. The study was conducted at SMK Negeri 1 Patumbak in the 2025/2026 academic year, involving 69 Grade XI Accounting students selected using total sampling. Product evaluation included validity testing by experts, practicality testing by teachers and students, and effectiveness testing using a pretest-posttest control group design. Data analysis techniques included descriptive and inferential analysis, comprising validity testing, practicality testing, ANOVA, effect size (Cohen's d), ANCOVA, MANOVA, MANCOVA, and follow-up tests. The results indicate that the developed e-module meets the criteria of validity, practicality, and effectiveness. The e-module was categorized as valid with a score of 83% ($\geq 61\%$) and highly practical with a score of 90.5% ($\geq 70\%$). In terms of effectiveness, the results of ANOVA, ANCOVA, and MANOVA showed a significance value of 0.000 (≤ 0.05), indicating significant differences between the experimental and control groups, both before and after controlling for initial ability. These findings were supported by effect size values (Cohen's d) of 0.94 and 1.02 (large category), as well as MANCOVA results with a significance value of 0.000 (≤ 0.05) and a contribution effect of 52.1%, indicating that the e-module has a significant and strong effect on students' critical thinking skills and learning outcomes. Based on these findings, it can be concluded that the Problem-Based Learning-based e-module integrated with gamification is valid, practical, and effective for use in accounting learning.

Keywords: *Problem-Based Learning, E-Module, Gamification, Critical Thinking Skills, Learning Outcomes, Accounting.*