ABSTRAK

Yani (2025), *Pengembangan E-Modul Inkuiri Berbasis Kearifan Lokal Bahau dalam Meningkatkan Hasil Belajar dan Literasi Sains*. Tesis, Teknologi Pendidikan, Program Pascasarjana, Universitas Pendidikan Ganesha.

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Kata-kata kunci: E-modul, Inkuiri Terbimbing, Kearifan Lokal Bahau, Hasil Belajar, dan Literasi Sains.

Pembelajaran sains yang masih didominasi dengan menggunakan metode ceramah serta keterbatasan bahan ajar kontekstual berdampak pada rendahnya minat belajar, hasil belajar, dan literasi sains siswa. Tujuan penelitian ini untuk menghasilkan e-modul berbasis inkuiri yang terintegrasi dengan kearifan lokal Bahau dengan kualifikasi valid, praktis, dan efektif dalam meningkatkan literasi sains dan hasil belajar siswa. Model pengembangan yang digunakan dalam penelitian ini, aadalah model pengembangan 4D (*Define, Design, Develop, Disseminate*). Tahap *Define* melibatkan analisis kebutuhan materi dan karakteristik peserta didik. Tahap *Design* meliputi perancangan media dan format e-modul. Pada tahap *Develop*, dilakukan uji validitas oleh ahli materi, media, dan budaya, dan uji kepraktisan. Tahap *Disseminate*, dilakukan *formative testing* terbatas dan penyebarluasan e-modul. Hasil validasi menunjukkan tingkat kelayakan sangat tinggi (nilai Gregory = 1,00). Uji kepraktisan menunjukkan persentase sebesar 93,81%. Hasil *formative testing* terbatas terhadap 30 siswa Kelas VII SMPN 1 Long Pahangai menunjukkan kelayakan e-modul inkuiri dengan *N-gain score* 0,50 pada literasi sains dan *N-gain score* 0,43 pada hasil belajar, keduanya berada pada kategori sedang, sehingga e-modul layak dalam membantu meningkatkan literasi sains dan hasil belajar. Hasil uji efektivitas menunjukkan rata-rata pencapaian literasi sains sebesar 72,27 (SD=5,95) dengan ketuntasan 87,78%, serta penilaian hasil belajar diperoleh nilai rata-rata 71,83 (SD=7,39), dengan ketuntasan 74,44%, serta 66,67% siswa mencapai kategori baik. Pencapaian hasil literasi sains dan hasil belajar siswa yang telah melebihi KKTP (70) menunjukkan e-modul inkuiri berbasis kearifan lokal Bahau efektif meningkatkan literasi sains dan hasil belajar. Dengan demikian, e-modul inkuiri berbasis kearifan lokal terbukti valid, praktis, dan efektif dalam meningkatkan literasi sains dan hasil belajar siswa.

ABSTRACT

Yani (2025). *The Development of Inquiry-Based E-Module Integrated with Bahau Local Wisdom to Improve Learning Outcomes and Scientific Literacy*. Thesis, Educational Technology, Postgraduate Program, Universitas Pendidikan Ganesha.

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Keywords: E-module, Guided Inquiry, Bahau Local Wisdom, Learning Outcomes, and Scientific Literacy

Science instruction in schools remains largely dependent on traditional lecture-based methods, with limited availability of contextualized learning resources. This situation contributes to students' low engagement, suboptimal academic performance, and inadequate scientific literacy. This study aims to design and validate an inquiry-based electronic module (e-module) that integrates Bahau local wisdom, evaluated in terms of its validity, practicality, and effectiveness in improving students' scientific literacy and science learning outcomes. The research followed the 4D development model, which consists of Define, Design, Develop, and Disseminate stages. The Define stage included a needs analysis of the learning content and student characteristics. The Design stage involved the conceptualization and structuring of the e-module. In the *Develop* stage, the module underwent validation by experts in content, media, and culture, as well as practicality testing. The *Disseminate* stage involved limited formative testing and the distribution of the e-module. Validation results showed a very high level of feasibility (Gregory index = 1.00). The practicality test yielded a percentage of 93.81%. Limited formative testing involving 30 seventh-grade students at SMPN 1 Long Pahangai showed that the inquiry-based e-module achieved an N-gain score of 0.50 for scientific literacy and 0.43 for learning outcomes, both classified as moderate. These results indicate that the e-module is appropriate for supporting improvements in students' scientific literacy and learning outcomes. The effectiveness test revealed an average scientific literacy score of 72.27 (SD = 5.95) with a mastery level of 87.78%, while the average learning outcome score was 71.83 (SD = 7.39), with a mastery level of 74.44% and 66.67% of students achieving the "good" category. The achievement of scientific literacy and learning outcomes that exceeded the minimum mastery criteria (KKTP = 70) indicates that the inquiry-based e-module integrated with Bahau local wisdom is effective in enhancing students' scientific literacy and learning outcomes. Therefore, the inquiry-based e-module has been proven to be valid, practical, and effective for improving students' scientific literacy and learning outcomes.