ABSTRAK

Dw. Md. Ananda Dian Iswara (2026), *Pengembangan E-Modul Berorientasi Pembelajaran Mendalam Berbasis Model Pembelajaran Inkuiri Terbimbing untuk Meningkatkan Kemampuan Pemecahan Masalah Siswa Kelas X SMA*. Tesis, Pendidikan Matematika, Program Pascasarjana, Universitas Pendidikan Ganesha.

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Kata-kata kunci: barisan dan deret, e-modul, inkuiri terbimbing, kemampuan pemecahan masalah, pembelajaran mendalam

Penelitian ini bertujuan menghasilkan e-modul berorientasi pembelajaran mendalam berbasis model pembelajaran inkuiri terbimbing yang valid, praktis, dan memenuhi kriteria efektivitas serta mendeskripsikan implementasinya dalam mendukung pencapaian kemampuan pemecahan masalah siswa kelas X SMA. Penelitian menggunakan model pengembangan ADDIE dan dilaksanakan di SMA Negeri 2 Tabanan pada semester ganjil tahun ajaran 2025/2026. Pihak yang terlibat dalam penelitian meliputi ahli media dan ahli materi, tiga guru matematika, 10 siswa pada uji kepraktisan, serta 108 siswa kelas X1, X2, dan X4 pada tahap implementasi. Data dikumpulkan melalui wawancara, observasi, angket, tes, dan dokumentasi. Instrumen penelitian meliputi lembar validasi, angket kepraktisan, pedoman wawancara, lembar observasi, dan tes kemampuan pemecahan masalah. Validitas isi instrumen meraih nilai 1 dengan kategori sangat tinggi. Seluruh 20 butir penilaian dinyatakan valid dengan koefisien korelasi 0,434–0,677 dan reliabilitas *Cronbach's Alpha* sebesar 0,886. Data dianalisis menggunakan persentase, statistik deskriptif, uji normalitas, *one sample t-test*, dan analisis deskriptif kualitatif. Hasil penelitian menunjukkan bahwa validasi media meraih 86,15% dan validasi isi/materi 86,67%, keduanya berkategori sangat valid. Kepraktisan oleh guru meraih 94,16% dan oleh siswa 90,94%, keduanya berkategori sangat praktis. Rata-rata nilai *posttest* siswa sebesar 82,34. Hasil *one sample t-test* menunjukkan $t_{hitung} = 11{,}131 > t_{tabel} = 1{,}659$ dengan signifikansi 0,000. Dengan demikian, e-modul yang dikembangkan dinyatakan valid, praktis, dan memenuhi kriteria efektivitas dalam mendukung pencapaian kemampuan pemecahan masalah matematis siswa pada materi Barisan dan Deret. Efektivitas tersebut didasarkan pada ketercapaian hasil posttest terhadap nilai acuan yang ditetapkan dan tidak diinterpretasikan sebagai bukti peningkatan kemampuan dari kondisi awal maupun hubungan sebab-akibat penggunaan e-modul.

ABSTRACT

Dw. Md. Ananda Dian Iswara (2026), Development of a Deep Learning-Oriented E-Module Based on the Guided Inquiry Learning Model to Improve the Problem-Solving Ability of Tenth-Grade Senior High School Students. Thesis, Mathematics Education, Postgraduate Program, Ganesha University of Education.

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Keywords: deep learning, e-module, guided inquiry, problem-solving ability, sequences and series

This study aimed to develop a deep learning-oriented e-module based on the guided inquiry learning model that was valid, practical, and met the predetermined effectiveness criterion, as well as to describe its implementation in supporting the achievement of mathematical problem-solving ability among tenth-grade senior high school students. The study employed the ADDIE development model and was conducted at SMA Negeri 2 Tabanan during the first semester of the 2025/2026 academic year. The parties involved in this study included media and content experts, three mathematics teachers, 10 students in the practicality test, and 108 students from classes X1, X2, and X4 in the implementation stage. Data were collected through interviews, observations, questionnaires, tests, and documentation. The research instruments included validation sheets, practicality questionnaires, interview guidelines, observation sheets, and a problem-solving ability test. The instruments obtained a content validity coefficient of 1.00, categorized as very high. All 20 assessment items were declared valid, with correlation coefficients ranging from 0.434 to 0.677 and a Cronbach's Alpha reliability coefficient of 0.886. The data were analyzed using percentage analysis, descriptive statistics, a normality test, a one-sample t-test*, and qualitative descriptive analysis. The results showed that media validation reached 86.15% and content validation reached 86.67%, both categorized as highly valid. The practicality assessment by teachers reached 94.16%, while the student assessment reached 90.94%, both categorized as highly practical. The students' mean posttest score was 82.34. The* one-sample t-test *showed that* $t_{observed} = 11{,}131 > t_{critical} = 1{,}659$*, with a significance value of 0.000. Therefore, the developed e-module was considered valid, practical, and met the effectiveness criterion in supporting students' achievement of mathematical problem-solving ability in sequences and series. This effectiveness was based on the posttest achievement relative to the predetermined reference score and was not interpreted as evidence of improvement from the students' initial condition or as evidence of a causal effect of the e-module.*