

## ABSTRAK

Suastrawan, Komang Edi (2021), Pengembangan E-Modul IPA SMP Kelas VII dengan Model *Process Oriented Guided Inquiry Learning* Berbasis Isu-isu Sosial Sains untuk Meningkatkan Keterampilan Berpikir Kritis Siswa. Tesis, Pendidikan IPA, Program Pascasarjana, Universitas Pendidikan Ganesha.

Tesis pengembangan ini telah disetujui dan diperiksa oleh Pembimbing I: Dr. I Nyoman Suardana, M.Si dan Pembimbing II: Dr. A.A. Istri Agung Rai Sudiatmika, M.Pd.

Kata kunci: POGIL, e-modul, berpikir kritis, isu-isu sosial sains

Penelitian ini bertujuan menghasilkan bahan ajar berupa e-modul IPA SMP kelas VII dengan model *process oriented guided inquiry learning* berbasis isu-isu sosial sains yang valid, praktis, dan efektif untuk meningkatkan keterampilan berpikir kritis siswa. Penelitian ini termasuk penelitian pengembangan dengan mengakomodasi model ADDIE (*Analyze, Design, Develop, Implement, and Evaluate*). Data yang dikumpulkan berupa data kualitatif dan data kuantitatif melalui kuesioner validitas, kepraktisan, dan tes keterampilan berpikir kritis. Uji efektivitas pada penelitian ini dilakukan melalui *pre-experimental* dengan *one-group pretest-posttest design*. Data yang terkumpul dianalisis menggunakan analisis deskriptif. Adapun hasil penelitian yang diperoleh, yaitu (1) e-modul disusun dengan model *process oriented guided inquiry learning* berbasis isu-isu sosial sains kontroversial yang dilengkapi video, audio, dan kuis interaktif. (2) e-modul IPA dinyatakan sangat valid dari segi materi dengan Koefisien Validasi Gregory 1,0, valid dari segi bahasa dengan nilai rata-rata 96,36, dan valid dari segi media dengan nilai rata-rata 96,13. (3) e-modul dinyatakan sangat praktis oleh guru dan siswa dengan nilai rata-rata masing-masing sebesar 97,56 dan 96,36. (4) e-modul dinyatakan efektif mengembangkan keterampilan berpikir kritis siswa dengan nilai rata-rata *posttest* sebesar 74,86 kategori baik, serta *gain score* rata-rata secara keseluruhan yaitu 0,55 dengan kualifikasi sedang. Berdasarkan hasil tersebut, dapat ditarik kesimpulan bahwa e-modul IPA berbasis isu-isu sosial sains telah dinyatakan valid, praktis, dan efektif mengembangkan keterampilan berpikir kritis siswa

## ABSTRACT

Suastrawan, Komang Edi (2021), Development of a Science E-Module for Class VII Junior High School with a Process Oriented Guided Inquiry Learning Model Based on Socioscientific Issues to Improve Students' Critical Thinking Skills. Thesis, Science Education, Postgraduate Program, Ganesha University of Education.

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Keywords: POGIL, e-module, critical thinking, socioscientific issues

The present study aimed at producing a science e-module product for class VII Junior High School with a process-oriented guided inquiry learning model based on socioscientific issues that met valid, practical, and effective criteria in improving students' critical thinking skills. The research was development research using the ADDIE model (Analyze, Design, Develop, Implement, and Evaluate). The data in this study were both qualitative and quantitative which were collected using validity questionnaires, practicality questionnaires, and critical thinking skills tests. The E-modul effectiveness test was conducted by using pre-experimental research with one group pretest posttest design. The analysis technique used in this research was descriptive analysis. The results of the research showed that: (1) the e-module was prepared using a process-oriented guided inquiry learning model based on controversial social science issues equipped with video, audio, and interactive quizzes; (2) the science e-module was declared to be very valid in terms of material with the Gregory Validation Coefficient of 1.0, valid in terms of language with an average value of 96.36, and valid in terms of media with an average value of 96.13; (3) the e-module was declared very practical by the teacher with an average score of 97.56 and declared very practical by the students with an average score of 96.36; and (4) the science e-module was declared effective in improving students' critical thinking skills with an average posttest score of 74.86 in the good category, and the overall gain score for critical thinking skills was 0.55 in the medium category which indicated that science e-modules were effective in improving students' critical thinking skills. In a nutshell, the science e-module based on social science issues was declared valid, practical, and effective in improving critical thinking skills.