ABSTRAK

Rosmayuni, A. A. A. P. 2024. Pengembangan e-Modul Pembelajaran IPA Berbasis Isu-Isu Sosial Sains untuk Meningkatkan Literasi Sains dan Literasi Sosial Peserta Didik Kelas VIII. *Tesis*, S2 Pendidikan IPA, Program Pascasarjana, Universitas Pendidikan Ganesha.

Tesis ini sudah disetujui dan diperiksa oleh: Pembimbing I: Prof. Dr. Ketut Suma, M.S., dan Pembimbing II: Prof. Dr. Drs. I Wayan Suja, M.Si.

Kata Kunci   : e-Modul, isu-isu sosial sains, literasi sains, literasi sosial

Penelitian ini merupakan penelitian pengembangan yang bertujuan untuk menghasilkan produk berupa e-Modul IPA berbasis isu-isu sosial sains yang valid, praktis, dan efektif meningkatkan literasi sians dan literasi sosial peserta didik kelas VIII. E-Modul IPA berbasis isu-isu sosial sains dikembangkan dengan menggunakan model pengembangan ADDIE (*Analyze, Design, Develop, Implementation, Evaluation*). Uji validitas produk meliputi uji validitas isi, uji validitas bahasa, dan validitas media. Uji kepraktisan melibatkan guru IPA dan peserta didik se-Kota Amlapura. Uji efektivitas produk e-Modul menggunakan rancangan *pretest-posttest nonequivalent control group design*. Data hasil uji efektivitas dianalisis dengan menggunakan statistik inferensial mancova. E-Modul yang dikembangan merupakan e-Modul *open source* yang dilengkapi fokus isu menggunakan video interaktif dan memanfaatkan isu-isu sosial. Fitur belajar yang menarik yang mengkombinasikan visual, kinestetik, dan auditori dengan memanfaatkan fitur *fill the blank*, *drag and drop, image hotspot, image pairing*, dan *rekaman audio*. Evaluasi pada e-Modul fokus pada penekanan dan pengembangan literasi peserta didik. Proses belajar menekankan pendekatan interdisipliner antara konsep IPA dengan aspek ekonomi, sosial, serta lingkungan. Hasil uji kevalidan isi memiliki kevalidan sangat tinggi dengan tingkat *percentage of agreement* yang baik dari kedua penguji. Uji validitas bahasa dan media memiliki kriteria yang sangat valid. E-Modul IPA berbasis isu-isu sosial sains memiliki kepraktisan yang sangat praktis baik oleh guru maupun peserta didik. Hasil uji multivariat menunjukkan nilai F=49,00 dengan taraf signifikansi 0,001 Rata-rata literasi sains kelompok e-Modul IPA berbasis isu-isu sosial sains (16,00) lebih besar dibandingkan kelompok e-Modul biasa (13,04). Rata-rata literasi sosial kelompok e-Modul IPA berbasis isu-isu sosial sains (46,52) lebih besar dibandingkan kelompok e-Modul biasa (42,50). Berdasarkan hasil tersebut dapat disimpulkan bahwa e-Modul IPA berbasis isu-isu sosial sains lebih efektif dalam pencapaian literasi sains dan literasi sosial dibandingkan dengan e-Modul biasa.

ABSTRACT

Rosmayuni, A. A. A. P. 2024. Development of a Science Learning E-Module Based on Socio Scientific Issues to Improve the Science Literacy and Social Literacy of Class VIII Students. Thesis, Masters in Science Education, Postgraduate Program, Ganesha University of Education.

This thesis has been approved and examined by: Supervisor I: Prof. Dr. Ketut Suma, M.S., and Supervisor II: Prof. Dr. Drs. I Wayan Suja, M.Sc.

Keywords: e-Module, socio scientific issues, scientific literacy, social literacy

This research is development research which aims to produce a product in the form of a science e-Module based on social science issues that is valid, practical and effective in increasing social literacy and social literacy for class VIII students. The science e-module based on social science issues was developed using the ADDIE (Analyze, Design, Develop, Implementation, Evaluation) development model. Product validity tests include content validity tests, language validity tests, and media validity tests. The practical test involved science teachers and students throughout Amlapura City. Test the effectiveness of the e-Module product using a pretest-posttest nonequivalent control group design. Data from the effectiveness test were analyzed using Mancova inferential statistics. The e-Module being developed is an open source e-Module which is equipped with an issue focus using interactive videos and utilizing social issues. An interesting learning feature that combines visual, kinesthetic, and auditory by utilizing fill the blank, drag and drop, image hotspot, image pairing, and audio recording features. Evaluation of the e-Module focuses on emphasizing and developing student literacy. The learning process emphasizes an interdisciplinary approach between science concepts and economic, social and environmental aspects. The results of the content validity test have very high validity with a good percentage of agreement level from the two examiners. Language and media validity tests have very valid criteria. The science e-module based on social science issues has very practical applications for both teachers and students. Multivariate test results show a value of F=49.00 with a significance level of 0.001. The average scientific literacy of the science e-Module group based on social science issues (16.00) is greater than the regular e-Module group (13.04). The average social literacy of the science e-Module group based on social science issues (46.52) is greater than the regular e-Module group (42.50). Based on these results, it can be concluded that science e-Modules based on social science issues are more effective in achieving scientific literacy and social literacy compared to ordinary e-Modules.