

ABSTRAK

Rosmita, I Gusti Ayu Agung Mas (2024), *Pengembangan E-LKPD Berbantuan Video Pembelajaran Kimia Bermuatan Budaya Lokal Bali untuk Meningkatkan Model Mental dan Literasi Digital*. Tesis, Pendidikan IPA, Program Pascasarjana, Universitas Pendidikan Ganesha.

Kata-Kata Kunci: e-LKPD, Budaya lokal Bali, Video, Kimia, Model mental, Literasi digital

Penelitian ini bertujuan untuk menghasilkan e-LKPD berbantuan video pembelajaran kimia bermuatan budaya lokal Bali yang valid, praktis, dan efektif. Jenis penelitian ini adalah penelitian dan pengembangan menggunakan model pengembangan 4D (*four D-model*). Pengumpulan data dilakukan dengan teknik studi dokumentasi, angket, tes model mental *three tier*, dan lembar observasi. Rancangan penelitian pada uji keefektifan menggunakan *pretest-posttest control group design*. Data dianalisis dengan teknik analisis deskriptif dan Mancova. Hasil uji validitas menunjukkan e-LKPD yang dikembangkan tergolong sangat valid ditinjau dari validitas isi, media, dan bahasa. Berdasarkan penilaian guru dan peserta didik e-LKPD yang dikembangkan tergolong sangat praktis digunakan pada proses pembelajaran. Hasil uji keefektifan menunjukkan bahwa model mental benar secara ilmiah (*scientifically correct*) pada kelas eksperimen mengalami peningkatan lebih besar yaitu 49% dibandingkan pada kelas kontrol sebesar 22%. Model mental benar sebagian (*partially correct*) dan miskonsepsi khusus (*specific misconceptions*) pada kelas eksperimen mengalami penurunan lebih besar yaitu 31% dan 17%, sedangkan pada kelas kontrol menurun hanya sebesar 21% dan 1%. Kemampuan literasi digital peserta didik pada kelas eksperimen dengan kategori sangat baik sebesar 40%, sedangkan pada kelas kontrol dengan kategori sangat baik hanya 13%. Berdasarkan hasil uji Mancova diperoleh bahwa terdapat perbedaan model mental dan literasi digital antara peserta didik yang dibelajarkan dengan e-LKPD berbantuan video pembelajaran kimia bermuatan budaya lokal Bali dan peserta didik yang dibelajarkan dengan e-LKPD tanpa video pembelajaran bermuatan budaya lokal Bali. Dengan demikian, e-LKPD berbantuan video pembelajaran kimia bermuatan budaya lokal Bali yang dihasilkan valid, praktis, dan efektif untuk meningkatkan model mental dan literasi digital.

ABSTRACT

Rosmita, I Gusti Ayu Agung Mas (2024), *Development of electronic Student Worksheet Assisted By Chemistry Learning Videos Containing Local Balinese Culture To Improve Mental Models And Digital Literacy*. Thesis, Masters Program in Education, Postgraduate Program, Ganesha University of Education.

Keywords: electronic student worksheet, local balinese culture, video, chemistry, mental models, digital literacy

This research aims to produce electronic student worksheets assisted by chemistry learning videos containing local Balinese culture that are valid, practical, and effective. This type of research is research and development using the 4D development model (four D-model). Data collection was carried out using documentation study techniques, questionnaires, three-tier mental model tests, and observation sheets. The research design for the effectiveness test used a pretest-posttest control group design. Data were analyzed using descriptive analysis techniques and Mancova. The results of the validity test show that the electronic student worksheet developed is classified as very valid in terms of content, media, and language validity. Based on the assessments of teachers and students, the e-LKPD developed is classified as very practical for use in the learning process. The results of the effectiveness test showed that the scientifically correct mental model in the experimental class experienced a greater increase, namely 49% compared to 22% in the control class. Partially correct mental models and specific misconceptions in the experimental class experienced a greater decrease, namely 31% and 17%, while in the control class, the decrease was only 21% and 1%. The digital literacy ability of students in the experimental class in the very good category was 40%, while in the control class in the very good category, it was only 13%. Based on the results of the Mancova test, it was found that there were differences in mental models and digital literacy between students who were taught with e-LKPD assisted by learning videos containing local Balinese culture and students who were taught with e-LKPD without learning videos containing local Balinese culture. Thus, the e-LKPD assisted by chemistry learning videos containing local Balinese culture is valid, practical, and effective for improving mental models and digital literacy.