ABSTRAK

Nandana, Dewa Ketut Rama Berlian (2026). Pengembangan E-LKM IPA Bermuatan Kearifan Lokal Bali dengan Model *Problem Based Learning* untuk Meningkatkan Kemampuan Pemecahan Masalah dan Literasi Budaya Murid Kelas VII.

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Kata-kata kunci*: *E-LKM IPA; problem based learning; kearifan lokal Bali; kemampuan pemecahan masalah; literasi budaya.

Penelitian ini bertujuan menghasilkan Lembar Kerja Murid-Elektronik (E-LKM) IPA bermuatan kearifan lokal Bali dengan model *problem based learning* yang valid, praktis, dan efektif untuk meningkatkan kemampuan pemecahan masalah dan literasi budaya murid kelas VII. Jenis penelitian ini adalah penelitian pengembangan (*Research and Development*) dengan menggunakan model pengembangan 4D oleh Thiagarajan, meliputi 1) *Define* (Pendefinisian), 2) *Design* (Perancangan), 3) *Develop* (Pengembangan) dan 4) *Disseminate* (Penyebaran). Pengumpulan data dilakukan dengan teknik pemberian angket validasi, angket kepraktisan, dan tes kemampuan pemecahan masalah dan literasi budaya. Rancangan penelitian untuk uji keefektifan menggunakan *post-test only group design*. Data hasil uji efektivitas dianalisis menggunakan uji Manova. Hasil penelitian ini yaitu 1) E-LKM IPA yang dihasilkan memiliki karakteristik disajikan melalui *liveworksheet* serta sesuai dengan model PBL bermuatan kearifan lokal Bali. 2) Hasil uji validitas menunjukkan E-LKM IPA yang dihasilkan tergolong sangat valid ditinjau dari validitas isi, media, dan bahasa. 3) Berdasarkan penilaian guru dan murid, E-LKM IPA tersebut tergolong sangat praktis. 4) Hasil uji keefektifan menunjukkan terdapat perbedaan kemampuan murid dalam memecahkan masalah dan literasi budaya. Dalam hal ini kemampuan murid dalam memecahkan masalah dan literasi budaya pada kelas eksperimen lebih tinggi daripada kelas kontrol. Dengan demikian, E-LKM IPA bermuatan kearifan lokal Bali dengan model *problem based learning* efektif meningkatkan kemampuan murid dalam memecahkan masalah dan literasi budaya.

ABSTRACT

Nandana, Dewa Ketut Rama Berlian (2026). *Development of a Science Electronic Student Worksheet (E-LKM) Containing Balinese Local Wisdom Using a Problem-Based Learning Model to Improve Problem-Solving Skills and Cultural Literacy in Grade VII Students*.

This thesis has been approved and reviewed by Advisor I: Prof. Dr. Ida Bagus Putu Arnyana, M.Si. and Advisor II: Prof. Dr. Drs. I Wayan Suja, M.Si.

Keywords: *Electronic Science Student Activity Sheet (E-LKM); problem-based learning; Balinese local wisdom; problem-solving skills; cultural literacy*.

This study aims to produce Science Electronic Student Worksheet (E-LKM) containing Balinese local wisdom using problem-based learning model with a valid, practical, and effective to improve the problem-solving skills and cultural literacy of grade VII students. This type of research is research and development using the 4D development model by Thiagarajan, including 1) Definition, 2) Design, 3) Develop and 4) Disseminate. Data collection was carried out by the technique of providing validation questionnaires, practicality questionnaires, and tests of problem-solving skills and cultural literacy. The research design for the effectiveness test uses a post-test only group design. The data from the effectiveness test was analyzed using the Manova test. The results of this study are 1) the resulting Science E-LKM has the characteristics of being presented through a liveworksheet and in accordance with the problem based learning model containing Balinese local wisdom. 2) The results of the validity test show that the resulting Science E-LKM is classified as very valid from the validity of the content, media, and language. 3) Based on the assessment of teachers and students, the Science E-LKM is classified as very practical. 4) The results of the effectiveness test showed that there were differences in students' ability to solve problems and cultural literacy. In this case, the students' ability to solve problems and cultural literacy in the experimental class was higher than in the control class. Thus, Science E-LKM is loaded with Balinese local wisdom with a problem-based learning model that effectively improves students' ability to solve problems and cultural literacy.