

ABSTRAK

Al Iaros, Vizza. 2025. Pengembangan E-LKPD Liveworksheets berbasis *Problem Based Learning* untuk Keterampilan Berpikir Kritis dan Kreatif Siswa pada Materi Kingdom Monera. Skripsi, Program Studi Pendidikan Biologi, Fakultas Keguruan dan Ilmu Pendidikan, Universitas Muhammadiyah Jember.

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Kata Kunci : E-LKPD, PBL, Keterampilan Berpikir Kritis dan Kreatif, Kingdom Monera

Kondisi pembelajaran Kingdom Monera di beberapa SMA negeri dan swasta di Jember terdapat tantangan yang dilihat berdasarkan hasil analisis kebutuhan, terutama dalam pemanfaatan media digital. Sebesar 67% guru belum mengembangkan LKPD digital dan belum sepenuhnya menerapkan indikator berpikir kreatif dan kritis. Sementara itu, 94,34% siswa tertarik pada Biologi, namun kesulitan memahami materi Kingdom Monera karena sifatnya abstrak, minim media visual, serta lemahnya kemampuan menganalisis masalah dan menciptakan ide baru. Kondisi ini menunjukkan perlunya E-LKPD berbasis *Problem Based Learning* untuk melatih keterampilan berpikir kritis dan kreatif.

Jenis penelitian ini merupakan penelitian pengembangan. Penelitian ini dilakukan pada bulan Februari di SMA Negeri 3 Jember. Subjek pada penelitian ini yaitu 3 validator ahli dosen, 2 validator ahli praktisi dan 36 peserta didik kelas X SMA Negeri 3 Jember. Penelitian ini bertujuan untuk mengukur validitas, efektivitas, dan praktikalitas media pembelajaran E-LKPD *Liveworksheet* berbasis PBL yang bermuatan keterampilan berpikir kritis dan kreativitas yang dikembangkan.

Penelitian yang dilakukan menggunakan lima tahap pengembangan model ADDIE (*Analyze, Design, Development, Implementation, and Evaluation*). Instrumen yang digunakan angket need assessment guru & peserta didik, angket validasi ahli dosen dan praktisi, tes hasil belajar dalam bentuk pretest dan posttest, serta angket respon peserta didik. Data yang didapatkan akan dianalisis untuk mengetahui validitas produk, respon peserta didik, dan keterampilan berpikir kritis dan kreativitas.

Hasil penelitian menunjukkan bahwa media pembelajaran E-LKPD *Liveworksheets* berbasis PBL pada materi Kingdom Monera memiliki tingkat validitas sangat tinggi sebesar 89%, sehingga layak digunakan dalam pembelajaran. Media ini juga terbukti efektif dalam melatih keterampilan berpikir kritis dan kreativitas peserta didik, dengan hasil uji N-gain sebesar 0,8278, keterampilan berpikir kritis sebesar 88%, dan kreativitas sebesar 92%. Dari segi kepraktisan, media ini dinilai sangat praktis digunakan dengan persentase sebesar 80%. Sehingga produk yang dikembangkan yaitu E-LKPD *Liveworksheets* berbasis PBL dinyatakan valid, efektif, dan praktis digunakan sebagai media pembelajaran yang mampu mengembangkan keterampilan berpikir kritis dan kreatif siswa pada materi Kingdom Monera

ABSTRACT

Al Laros, Az zahra Vizza. 2025. Development of Electronic Student Worksheets Liveworksheets based on Problem Based Learning for Critical Thinking Skills and Student Creativity on Kingdom Monera Material. Thesis, Biology Education Study Program, Faculty of Teacher Training and Education, Muhammadiyah University of Jember.
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Keywords: *Electronic Student Worksheets, Problem Based Learning, Critical Thinking Skills, Creativity, Kingdom Monera*

The learning conditions of Kingdom Monera in several public and private high schools in Jember have challenges as seen based on the results of the needs analysis, especially in the use of digital media. As many as 67% of teachers have not developed digital student worksheets and have not fully implemented creative and critical thinking indicators. Meanwhile, 94.34% of students are interested in Biology, but have difficulty understanding the Kingdom Monera material because it is abstract, lacks visual media, and weak ability to analyze problems and create new ideas. This condition shows the need for electronic student worksheets based on Problem Based Learning to train critical and creative thinking skills. This research is a development study conducted in February at senior high school 3 Jember. The research subjects consisted of 3 expert validators (lecturers), 2 practitioner validators, and 36 tenth-grade students of senior high school 3 Jember. The study aimed to evaluate the validity, effectiveness, and practicality of the Liveworksheets-based electronic student worksheets using PBL that incorporates critical thinking and creativity skills.

The development used the ADDIE model, consisting of five stages: Analyze, Design, Development, Implementation, and Evaluation. Instruments included need assessment questionnaires for teachers and students, validation questionnaires for experts and practitioners, pretest and posttest assessments, and student response questionnaires. Data were analyzed to determine product validity, student responses, and the development of critical thinking and creativity skills.

The results of the study indicate that the electronic learning media for student worksheets Liveworksheets based on PBL on the Kingdom Monera material has a very high validity rate of 89%, making it suitable for use in learning. This media has also proven effective in training critical thinking skills and creativity of students, with the results of the N-gain test of 0.8278, critical thinking skills of 88%, and creativity of 92%. In terms of practicality, this media is considered very practical to use with a percentage of 80%. So the product developed, namely the Electronic Student Worksheet Liveworksheets based on PBL, is declared valid, effective, and practical to be used as a learning media that is able to develop students' critical and creative thinking skills on the Kingdom Monera material.