ABSTRAK

Hafizha, Annisa Al. 2025. Design E-LKPD berbasis Problem Based Learning Untuk Meningkatkan Keterampilan Computational Thinking Siswa Pada Materi Peluang Kelas X SMA: Skripsi Jurusan Pendidikan Matematika dan Ilmu Pengetahuan Alam, FKIP Universitas Jambi, Pembimbing: (I) Dr. Rohati, S.Pd., M.Pd. (II) Feri Tiona Pasaribu, S.Pd., M.Pd.

Kata Kunci: *Computational Thinking*, *Design,* E-LKPD, *Problem Based Learning,*

Penelitian ini bertujuan untuk mendeskripsikan proses desain dan kualitas E-LKPD berbasis Problem Based Learning (PBL) guna meningkatkan keterampilan Computational Thinking siswa pada materi peluang kelas X SMA. Penelitian ini merupakan penelitian pengembangan yang menggunakan model ADDIE (Analysis, Design, Development, Implementation, Evaluation). Subjek penelitian terdiri dari dosen pendidikan matematika sebagai validator, guru matematika, dan siswa kelas X E.1 SMA Negeri 4 Kota Jambi sebanyak 36 orang.

Produk yang didesain divalidasi dari segi isi dan desain. Hasil validasi menunjukkan bahwa E-LKPD tergolong sangat valid dengan persentase kevalidan materi sebesar 93,7% dan kevalidan desain sebesar 75,5%. Uji kepraktisan dilakukan melalui angket kepada guru dan siswa, dengan hasil tingkat kepraktisan masing-masing sebesar 90,7% dan 86,4% yang menunjukkan bahwa E-LKPD tergolong sangat praktis. Efektivitas E-LKPD dilihat dari hasil posttest keterampilan Computational Thinking dan angket respon siswa. Rata-rata nilai posttest siswa sebesar 88,5 dan tergolong dalam kategori tinggi. Sementara itu, rata-rata nilai N-Gain sebesar 0,82 dengan persentase peningkatan 82% yang termasuk dalam kategori efektif. Berdasarkan hasil tersebut, dapat disimpulkan bahwa E-LKPD berbasis *problem based learning* yang didesain layak digunakan dalam pembelajaran matematika khususnya pada materi peluang untuk meningkatkan keterampilan *computational thinking* siswa.

ABSTRACT

Hafizha, Annisa Al. 2025. Designing E-LKPD Based on Problem-Based Learning to Improve Students' Computational Thinking Skills in Probability Material for Grade X Senior High School: Thesis in Mathematics and Natural Sciences Education, FKIP University of Jambi, Advisors: (I) Dr. Rohati, S.Pd., M.Pd. (II) Feri Tiona Pasaribu, S.Pd., M.Pd.

***Keywords**: Computational Thinking, Design, E-LKPD, Problem-Based Learning,*

This study aims to describe the design process and quality of E-LKPD based on Problem-Based Learning (PBL) to enhance students' computational thinking skills in probability material for 10th grade high school students. This study is a development research using the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). The research subjects consisted of mathematics education lecturers as validators, mathematics teachers, and 36 students from Grade 10 E.1 of State Senior High School 4 in Jambi City.

The designed product was validated in terms of content and design. The validation results indicated that the E-LKPD was highly valid, with a content validity percentage of 93.7% and a design validity percentage of 75.5%. Practicality testing was conducted through questionnaires administered to teachers and students, with practicality levels of 90.7% and 86.4%, respectively, indicating that the E-LKPD is highly practical. The effectiveness of the E-LKPD was assessed based on post-test results for Computational Thinking skills and student response questionnaires. The average post-test score of students was 88.5 and was classified as high. Meanwhile, the average N-Gain score was 0.82 with an 82% increase, which was classified as effective. Based on these results, it can be concluded that the problem-based learning-based E-LKPD is suitable for use in mathematics learning, especially in probability material, to improve students' computational thinking skills.