ABSTRAK

Ava Emalia Selviana Putri. 2026. Pengembangan E-LKPD Berbasis *Problem Based Learning* Untuk Meningkatkan Kemampuan Berpikir Kritis Siswa SMKN 1 Jiwan Pada Materi Lingkaran. Skripsi. Program Studi Pendidikan Matematika, FKIP, Universitas PGRI Madiun. Pembimbing (I) Dr. Swasti Maharani, S.Pd., M.Pd., (II) Ika Krisdiana, S.Si., M.Pd.

Kemampuan berpikir kritis merupakan salah satu kompetensi yang perlu dikembangkan dalam pembelajaran matematika. Namun, hasil observasi di SMKN 1 Jiwan menunjukkan bahwa pembelajaran masih berpusat pada guru dan belum didukung oleh E-LKPD yang mampu memfasilitasi pengembangan kemampuan berpikir kritis siswa, sehingga siswa mengalami kesulitan dalam menyelesaikan permasalahan kontekstual pada materi lingkaran. Penelitian ini bertujuan untuk mengembangkan E-LKPD berbasis *Problem Based Learning* yang valid, praktis, dan efektif dalam meningkatkan kemampuan berpikir kritis siswa. Penelitian ini merupakan penelitian dan pengembangan (*Research and Development*) dengan model ADDIE yang meliputi tahap *Analysis, Design, Development, Implementation,* dan *Evaluation*. Data penelitian dikumpulkan melalui observasi, angket responss siswa, dan tes kemampuan berpikir kritis, kemudian dianalisis menggunakan analisis deskriptif kuantitatif dan *N-Gain*. Hasil penelitian menunjukkan bahwa E-LKPD memperoleh tingkat kevalidan sebesar 93% dengan kategori sangat valid, tingkat kepraktisan sebesar 89% pada uji coba terbatas dan 79% pada uji coba lapangan dengan kategori praktis, serta tingkat keefektifan yang ditunjukkan oleh rata-rata N-Gain sebesar 0,79 pada uji coba terbatas dan 0,80 pada uji coba lapangan yang termasuk kategori tinggi. Dengan demikian, E-LKPD berbasis *Problem Based Learning* dinyatakan valid, praktis, dan efektif sehingga layak digunakan untuk meningkatkan kemampuan berpikir kritis siswa pada materi lingkaran.

Kata Kunci: E-LKPD, *Problem Based Learning*, Kemampuan Berpikir Kritis.

ABSTRACT

Ava Emalia Selviana Putri. 2026. *Development of an E-LKPD Based on Problem-Based Learning to Improve the Critical Thinking Skills of Students at SMKN 1 Jiwan in the Topic of Circles*. Thesis. Faculty of Teacher Training and Education, Universitas PGRI Madiun. Advisor: Dr. Swasti Maharani, S.Pd., M.Pd., Co-Advisor: Ika Krisdiana, S.Si., M.Pd.

Key Terms**:** E-LKPD, Problem-Based Learning, Critical Thinking Skills.

Critical thinking skills are one of the competencies that need to be developed in mathematics learning. However, observations at SMKN 1 Jiwan showed that learning was still teacher-centered and had not been supported by an E-LKPD capable of facilitating the development of students' critical thinking skills. As a result, students experienced difficulties in solving contextual problems related to circle material. This study aimed to develop an E-LKPD based on Problem-Based Learning that is valid, practical, and effective in improving students' critical thinking skills. This study employed a research and development (Research and Development) design using the ADDIE model, which consists of the stages of Analysis, Design, Development, Implementation, and Evaluation. Data were collected through observations, student response questionnaires, and critical thinking skills tests, and were analyzed using quantitative descriptive analysis and N-Gain. The results showed that the E-LKPD achieved a validity level of 93%, categorized as very valid, a practicality level of 89% in the limited trial and 79% in the field trial, both categorized as practical, and an effectiveness level indicated by an average N-Gain of 0.79 in the limited trial and 0.80 in the field trial, both categorized as high. Therefore, the E-LKPD based on Problem-Based Learning was declared valid, practical, and effective, making it suitable for use in improving students' critical thinking skills in circle material.