

ABSTRAK

Ernova Viorely Purba, 2026. *Pengembangan E-LKPD Berbasis Kontekstual untuk Meningkatkan Kemampuan Koneksi Matematis Siswa pada Materi Statistika*. Skripsi. Program Studi Pendidikan Matematika, FKIP, Universitas PGRI Madiun. Pembimbing (I) Dr. Swasti Maharani, M.Pd., (II) Tri Andari, M.Pd.

Kemampuan koneksi matematis peserta didik SMK pada materi statistika masih rendah karena bahan ajar yang digunakan belum mengaitkan konsep matematika dengan konteks kehidupan nyata peserta didik. Penelitian ini bertujuan untuk mengembangkan E-LKPD berbasis Kontekstual berbantuan *Wizer.me* dan *Canva* untuk meningkatkan kemampuan koneksi matematis peserta didik kelas X SMK pada materi statistika (penyajian data dan histogram). Penelitian ini menggunakan pendekatan kuantitatif dengan jenis penelitian *Research and Development* (R&D) model ADDIE. Sumber data diperoleh dari validator ahli materi dan ahli media, serta peserta didik kelas X DKV 3 (uji coba terbatas) dan kelas X DKV 1 (uji coba lapangan) SMK Negeri 02 Jiwan. Teknik pengumpulan data menggunakan lembar validasi, angket respon peserta didik, serta soal *pre-test* dan *post-test*. Teknik analisis data menggunakan analisis deskriptif kuantitatif dengan menghitung persentase kevalidan dan kepraktisan, serta uji *N-Gain* untuk mengukur keefektifan. Hasil penelitian menunjukkan E-LKPD dinyatakan sangat valid dengan persentase validasi ahli media sebesar 85,63% dan ahli materi sebesar 86,15%. Tingkat kepraktisan mencapai 76,22% pada uji coba terbatas dan meningkat menjadi 85,33% pada uji coba lapangan dengan kategori sangat praktis. Keefektifan diukur melalui *N-Gain* sebesar 83,56% (kategori tinggi) pada uji coba terbatas dan 70% (kategori tinggi) pada uji coba lapangan. Dengan demikian, E-LKPD berbasis koontekstual yang dikembangkan valid, praktis, dan efektif dalam meningkatkan kemampuan koneksi matematis peserta didik SMK pada materi statistika.

Kata kunci: E-LKPD, Koneksi Matematis, Kontekstual, Pengembangan.

ABSTRACT

Ernova Viorely Purba, 2026. The Development of Contextual-Based E-Student Worksheets (E-LKPD) to Improve Students' Mathematical Connection Ability in Statistics. Thesis. Mathematics Education FKIP, Universitas PGRI Madiun. Advisors: (I) Dr. Swasti Maharani, M.Pd., (II) Tri Andari, M.Pd.

Students' mathematical connection ability at vocational high schools (SMK) in statistics material is still low because the teaching materials used have not linked mathematical concepts to the real-life context of students. This research aims to develop a Contextual-based E-LKPD (Electronic Student Worksheet) assisted by Wizer.me and Canva to improve the mathematical connection ability of tenth-grade vocational students in statistics material (data presentation and histograms). This study uses a quantitative approach with Research and Development (R&D) as the research type, employing the ADDIE model. The data sources were obtained from material experts and media experts as validators, as well as students from class X DKV 3 (limited trial) and class X DKV 1 (field trial) at SMK Negeri 02 Jiwan. Data collection techniques used validation sheets, student response questionnaires, and pre-test and post-test questions. Data analysis techniques used quantitative descriptive analysis by calculating the percentage of validity and practicality, as well as the N-Gain test to measure effectiveness. The results showed that the E-LKPD was declared highly valid, with a validation percentage of 85.63% from media experts and 86.15% from material experts. The practicality level reached 76.22% in the limited trial and increased to 85.33% in the field trial, both falling into the highly practical category. Effectiveness was measured through N-Gain scores of 83.56% (high category) in the limited trial and 70% (high category) in the field trial. Thus, the contextual-based E-LKPD developed is valid, practical, and effective in improving vocational students' mathematical connection ability in statistics material.

Keywords: E-LKPD, Mathematical Connection, Contextual, Development.