

## ABSTRAK

Dwi Amartani Suryaningputri. 2026. *Pengembangan E-LKPD Matematika Berbasis Komik Interaktif Berpendekatan Deep Learning Pada Materi SPLDV Untuk Meningkatkan Literasi Numerasi Siswa SMP Kelas VIII*. Skripsi. Program Studi Pendidikan Matematika, FKIP, UNIVERSITAS PGRI MADIUN. Pembimbing (I) Reza Kusuma Setyansah, M.Pd.; (II) Fatriya Adamura, M.Pd.

Literasi numerasi siswa Indonesia masih rendah sebagaimana tercermin dari skor PISA 2022 yang jauh di bawah rata-rata OECD termasuk di SMP Negeri 01 Mejayan yang belum memiliki media pembelajaran berbasis literasi numerasi secara eksplisit. Penelitian ini bertolak dari kerangka literasi numerasi PISA 2022 dan pendekatan *deep learning* untuk mengembangkan E-LKPD Matematika berbasis komik interaktif bertema *detective math academy* pada materi Sistem Persamaan Linear Dua Variabel (SPLDV) bagi siswa SMP Kelas VIII. Penelitian menggunakan metode *Research and Development* (R&D) dengan model 4D (*define, design, develop, disseminate*) yang dibatasi hingga tahap *develop*. Data kevalidan digali lembar validasi ahli materi dan ahli media, sedangkan data kepraktisan digali melalui angket respon guru, angket respon siswa, lembar observasi keterlaksanaan pada uji coba terbatas dan uji coba lapangan. Hasil penelitian menunjukkan E-LKPD valid dengan rata-rata kevalidan 88,86% (materi 82,22%; media 95,50%) serta praktis dengan peningkatan keterlaksanaan dari 60,87% menjadi 86,96%, respon siswa dari 82,36% menjadi 90,32%, dan respon guru dari 88,70% menjadi 97,39%. Dapat disimpulkan bahwa E-LKPD ini memenuhi kriteria kevalidan dan kepraktisan, namun keefektifannya terhadap literasi numerasi masih memerlukan pengujian lebih lanjut.

Kata kunci: E-LKPD, Komik Interaktif, *Deep Learning*, SPLDV, Literasi Numerasi

## ABSTRACT

Dwi Amartani Suryaningputri. 2026. *Development of Interactive Comic-Based E-LKPD for Mathematics Using a Deep Learning Approach on SPLDV Material to Improve Numeracy Literacy Among Eighth-Grade Junior High School Students*. Thesis. Mathematics Education Program, Faculty of Teacher Training and Education, UNIVERSITAS PGRI MADIUN. Advisors: (I) Reza Kusuma Setyansah, M.Pd.; (II) Fatriya Adamura, M.Pd.

Key Terms: E-LKPD, Interactive Comics, Deep Learning, SPLDV, Numeracy Literacy

Indonesian students' numeracy literacy remains low, as reflected in the 2022 PISA scores, which are well below the OECD average including at State Junior High School 01 Mejayan, which does not yet have learning materials explicitly focused on numeracy literacy. This study is based on the PISA 2022 numeracy literacy framework and the deep learning approach to develop an interactive comic-based digital worksheet (E-LKPD) on the theme of "Detective Math Academy" covering the topic of Systems of Linear Equations with Two Variables (SPLDV) for eighth-grade junior high school students. The study employed the Research and Development (R&D) method using the 4D model (define, design, develop, disseminate), limited to the "develop" stage. Validity data were collected through validation sheets completed by subject matter experts and media experts, while practicality data were gathered via teacher response questionnaires, student response questionnaires, and implementation observation sheets during limited trials and field trials. The results indicate that the E-LKPD is valid, with an average validity score of 88.86% (content: 82.22%; media 95.50%) and practical, with an increase in implementation from 60.87% to 86.96%, student response from 82.36% to 90.32%, and teacher response from 88.70% to 97.39%. It can be concluded that this E-LKPD meets the criteria for validity and practicality; however, its effectiveness in improving numeracy literacy still requires further testing.