

ABSTRAK

Waruwu, Juli, A. 2025. *Pengembangan LKS Berbasis Project-Based Learning Berbantuan Liveworksheet Untuk Meningkatkan Kemampuan Pemecahan Masalah Matematis Siswa Kelas VII SMP Negeri 1 Gido*. Pembimbing: Netti Kariani Mendrofa, S.Pd., M.Pd

Kemampuan pemecahan masalah matematis merupakan salah satu kompetensi penting yang harus dimiliki siswa. Namun, kenyataannya masih banyak siswa yang mengalami kesulitan dalam memahami soal, merancang strategi penyelesaian, serta mengkomunikasikan hasilnya. Oleh karena itu, diperlukan bahan ajar yang inovatif dan interaktif untuk membantu siswa mengembangkan kemampuan tersebut. Penelitian ini bertujuan untuk mengetahui kevalidan, kepraktisan, dan keefektifan Lembar Kerja Siswa (LKS) berbasis *Project-Based Learning* (PjBL) berbantuan *Liveworksheet* pada materi bilangan bulat di kelas VII SMP Negeri 1 Gido. Jenis penelitian ini adalah penelitian dan pengembangan (Research and Development). Model pengembangan yang digunakan adalah ADDIE yang meliputi tahap analysis, design, development, implementation, dan evaluation. Subjek penelitian adalah siswa kelas VII-B SMP Negeri 1 Gido. Instrumen penelitian meliputi lembar validasi ahli, angket respon guru dan siswa, serta tes hasil kemampuan pemecahan masalah matematis siswa. Hasil validasi menunjukkan bahwa LKS termasuk dalam kategori sangat valid dengan rata-rata skor 95%. Uji coba menunjukkan bahwa LKS termasuk dalam kategori sangat praktis dengan skor rata-rata respon guru dan siswa sebesar 95%. Sementara itu, efektivitas LKS dilihat dari rata-rata hasil tes kemampuan pemecahan masalah matematis siswa sebesar 81 dengan ketuntasan klasikal sebesar 93,75%. Dengan demikian, LKS berbasis *Project-Based Learning* berbantuan *Liveworksheet* dinyatakan valid, praktis, dan efektif untuk meningkatkan kemampuan pemecahan masalah matematis siswa kelas VII SMP Negeri 1 Gido.

Kata Kunci : Kemampuan pemecahan masalah matematis; Lembar Kerja Siswa (LKS); Project-Based Learning (PjBL); Liveworksheet; Bilangan Bulat; Research and Development (R&D); Model ADDIE.

Waruwu, Juli, A. 2025. *Developing Project-Based Learning Worksheets Assisted by Liveworksheet to Improve Mathematical Problem-Solving Skills of Seventh Grade Students at SMP Negeri 1 Gido*. Pembimbing: Netti Kariani Mendrofa, S.Pd., M.Pd

Mathematical problem-solving skills are one of the important competencies that students must possess. However, in reality, many students still experience difficulties in understanding problems, designing solution strategies, and communicating their results. Therefore, innovative and interactive teaching materials are needed to help students develop these skills. This study aims to determine the validity, practicality, and effectiveness of Student Worksheets (SW) based on Project-Based Learning (PjBL) assisted by Liveworksheet on integer material in grade VII of SMP Negeri 1 Gido. This type of research is research and development (Research and Development). The development model used is ADDIE, which includes the stages of analysis, design, development, implementation, and evaluation. The research subjects are students in class VII-B at SMP Negeri 1 Gido. The research instruments include expert validation sheets, teacher and student response questionnaires, and learning outcome tests. The validation results indicate that the SWL falls into the highly valid category with an average score of 95%. The test showed that the Students' worksheet was categorized as practical, with an average response score from teachers and students of 95%. Meanwhile, the effectiveness of the student worksheet was reflected in the average score of students' mathematical problem-solving ability tests, which was 81, with a classical mastery level of 93.75%. Thus, the students' worksheet based on Project-Based Learning assisted by Liveworksheet is declared valid, practical, and effective for improving the mathematical problem-solving abilities of seventh-grade students at SMP Negeri 1 Gido.

Keywords : Mathematical problem-solving skills; Student Worksheet (LKS); Project-Based Learning (PjBL); Liveworksheet; Integers; Research and Development (R&D); ADDIE Model.