

ABSTRAK

Gea, Nopita. 2025. *Pengembangan Lembar Kerja Siswa (LKS) Berbasis Proyek Untuk Meningkatkan Kemampuan Penalaran Matematis Siswa SMP*. Skripsi. Pembimbing: Ratna Natalia Mendrofa, S.Pd., M.Pd.

Penelitian ini dilatarbelakangi oleh hasil observasi awal di UPTD SMP Negeri 1 Gunungsitoli Alo'oa dan diperoleh hasil bahwa kemampuan penalaran matematis siswa berada pada kategori masih kurang dan bahan ajar yang digunakan dalam pembelajaran matematika masih terbatas. Tujuan penelitian yaitu: (1) Untuk mengetahui tingkat validitas pengembangan Lembar Kerja Siswa (LKS) berbasis proyek, (2) Untuk mengetahui tingkat kepraktisan pengembangan Lembar Kerja Siswa (LKS) berbasis proyek, (3) Untuk mengetahui tingkat keefektifan pengembangan Lembar Kerja Siswa (LKS) berbasis proyek. Jenis metode penelitian ini merupakan penelitian pengembangan dengan menggunakan model *ADDIE (Analysis, Design, Development, Implementation, Evaluation)*. Instrumen penelitian yang digunakan adalah tes, angket validasi dan angket respon. Jenis data yang digunakan dalam penelitian ini adalah data kualitatif dan data kuantitatif. Hasil penelitian: (1) Tingkat validitas pengembangan Lembar Kerja Siswa (LKS) berbasis proyek oleh ahli materi pertama sebesar 84,72% dengan kriteria valid, ahli materi kedua sebesar 87,50% dengan kriteria sangat valid, ahli bahasa sebesar 91,67% dengan kriteria sangat valid, dan ahli media sebesar 88,54% dengan kriteria sangat valid. (2) Tingkat kepraktisan pengembangan Lembar Kerja Siswa (LKS) berbasis proyek pada uji perseorangan sebesar 72,22% dengan kriteria praktis, uji coba kelompok kecil sebesar 84,83% dengan kriteria sangat praktis, uji lapangan sebesar 88,11% dengan kriteria sangat praktis. (3) Tingkat keefektifan pengembangan Lembar Kerja Siswa (LKS) berbasis proyek diperoleh nilai rata-rata kemampuan penalaran matematis sebesar 87,88 dengan kriteria sangat baik dan persentase ketuntasan klasikal sebesar 86,36% dengan kriteria sangat efektif. Sesuai hasil penelitian di atas, disimpulkan bahwa Lembar Kerja Siswa (LKS) berbasis proyek dalam meningkatkan kemampuan penalaran matematis siswa SMP telah valid, praktis, dan efektif untuk digunakan dalam proses pembelajaran matematika di sekolah.

Kata Kunci : *Lembar Kerja Siswa Berbasis Proyek, Kemampuan Penalaran Matematis, Statistika*

ABSTRACT

Gea, Nopita. 2025. *Development of Project-Based Student Worksheets (LKS) to Improve Junior High School Students' Mathematical Reasoning Skills*. Undergraduate Thesis. Supervisor: Ratna Natalia Mendrofa, S.Pd., M.Pd.

This research is motivated by the results of initial observations at the UPTD of SMP Negeri 1 Gunungsitoli Alo'oa and the results obtained that students' mathematical reasoning abilities are in the category of still lacking and the teaching materials used in mathematics learning are still limited. The objectives of the research are: (1) To determine the level of validity of the development of project-based Student Worksheets (LKS), (2) To determine the level of practicality of the development of project-based Student Worksheets (LKS), (3) To determine the level of effectiveness of the development of project-based Student Worksheets (LKS). This type of research method is a development research using the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). The research instruments used were tests, validation questionnaires, and response questionnaires. The types of data used in this study were qualitative and quantitative data. The results of the study: (1) The validity level of the development of project-based Student Worksheets (LKS) by the first material expert was 84,72% with valid criteria, the second material expert was 87,50% with very valid criteria, the language expert was 91,67% with very valid criteria, and the media expert was 88,54% with very valid criteria. (2) The practicality level of the development of project-based Student Worksheets (LKS) in individual tests was 72,22% with practical criteria, small group trials were 84,83% with very practical criteria, and field tests were 88,11% with very practical criteria. (3) The effectiveness level of the development of project-based Student Worksheets (LKS) obtained an average value of mathematical reasoning ability of 87,88 with very good criteria and a classical completion percentage of 86,36% with very effective criteria. Based on the research results above, it is concluded that project-based Student Worksheets (LKS) in improving junior high school students' mathematical reasoning abilities are valid, practical, and effective for use in the mathematics learning process at school.

Keywords : *Project-Based Student Worksheets, Mathematical Reasoning Skills, Statistics*