

ABSTRAK

Michael Purba, NIM. 4163111047 (2022). Pengembangan Lembar Kerja Peserta Didik (LKPD) Berbasis *Problem Based Learning* (PBL) Untuk Meningkatkan Kemampuan Penalaran Matematis Siswa.

Tujuan dari penelitian ini adalah untuk menghasilkan produk lembar kerja peserta didik (LKPD) *Berbasis Problem Based learning* (PBL). Penelitian ini menggunakan model pengembangan atau R&D (*Research and development*). Subyek penelitian ini sebanyak 30 orang peserta didik di kelas VIII-A SMP Negeri 1 Doloksanggul. Hasil penelitian menunjukkan bahwa LKPD *Berbasis Problem Based Learning* (PBL) yang dikembangkan adalah : (1).Valid dengan indikator penilaian aspek kelayakan isi memperoleh nilai presentase 91,79% dengan kategori sangat valid, indikator penelitian berupa aspek penyajian materi memperoleh nilai presentase sebesar 95,55% dengan kategori sangat valid, aspek kebahasaan dan nilai presentase sebesar 90% dengan kategori sangat valid dan aspek kegrafikan dengan nilai presentase sebesar 97,03% dengan kategori sangat valid, serta validitas LKPD secara keseluruhan memperoleh nilai presentase 94,16% dengan kriteria sangat valid, (2) LKPD yang dikembangkan memenuhi kriteria efektif berdasarkan aspek keefektifan. Keefektifan diperoleh dari hasil ketuntasan belajar siswa secara klasikal adalah 84,33% sehingga secara klasikal telah memenuhi kriteria pencapaian ketuntasan dan siswa yang tuntas belajar dengan presentase 86,66% yang termasuk dalam kategori tuntas. (3) LKPD yang dikembangkan mampu meningkatkan kemampuan penalaran matematis siswa yang mencakup 4 indikator, pada indikator pertama 93% indikator kedua 86% indikator ketiga 81% dan indikator keempat 78%. Sehingga kemampuan penalaran matematis siswa meningkat dari uji coba *pretest* dan uji coba *posttest*

Kata kunci : Perangkat Pembelajaran, Model *Problem Based Learning* (PBL) Kemampuan Penalaran Matematis Siswa, Statistika.



ABSTRACT

Michael Purba, NIM. 4163111047 (2022). Development of Student Worksheets (LKPD) Based on Problem Based Learning (PBL) to Improve Students' Mathematical Reasoning Ability.

The purpose of this study was to produce student worksheets (LKPD) based on Problem Based Learning (PBL). This research uses a development model or R&D (Research and development). The subjects of this study were 30 students in class VIII-A of SMP Negeri 1 Doloksanggul. The results showed that the Problem Based Learning (PBL)-Based LKPD developed were: (1). Valid with the assessment indicator for the feasibility aspect of the content obtaining a percentage value of 91.79% in the very valid category, research indicators in the form of material presentation aspects obtaining a percentage value of 95.55% with a very valid category, linguistic aspects and a percentage value of 90% with a very valid category and graphical aspects with a percentage value of 97.03% with a very valid category, and the validity of the LKPD as a whole obtains a percentage value of 94.16% with the criteria very valid, (2) the developed LKPD meets the criteria of effectiveness based on the effectiveness aspect. The effectiveness obtained from the results of students' completeness in classical learning is 84.33% so that classically it meets the criteria for achieving completeness and students who complete learning with a percentage of 86.66% are included in the complete category. (3) the developed LKPD is able to improve students' mathematical reasoning abilities which include 4 indicators, the first indicator is 93%, the second indicator is 86%, the third indicator is 81%, and the fourth indicator is 78%. So that students' mathematical reasoning abilities increased from the pretest and posttest trials.

Keywords: Learning Devices, Problem Based Learning (PBL) Models, Students' Mathematical Reasoning Ability, Statistics.