

Abstrak

Nurhasana A.L. Sirait: Pengembangan LKPD Berbasis PBL Berbantuan Platform Alef Education Untuk Meningkatkan Kemampuan Penalaran dan Kemandirian Belajar Siswa MtsN Toba Samosir. Tesis Medan: Program Studi Pendidikan Matematika Pascasarjana Universitas Negeri Medan 2025.

Tujuan penelitian ini untuk menentukan kevalidan, kevalidan, kepraktisan, dan keefektifan lembar kerja peserta didik (LKPD) berbasis PBL berbantuan platform alef education, peningkatan kemampuan penalaran matematis siswa, dan peningkatan kemandirian belajar siswa. Jenis penelitian yang digunakan adalah research and development, model pengembangan yang digunakan adalah model pembelajaran Thiagarajan, Semmel yaitu model 4-D. Penelitian dilakukan di kelas VII MTsN Toba Samosir, sampel penelitian sebanyak 26 siswa. Hasil penelitian diperoleh bahwa LKPD yang dikembangkan dinyatakan valid, praktis dan efektif, peningkatan kemampuan penalaran dan kemandirian belajar siswa yang belajar menggunakan LKPD yang dikembangkan dengan model PBL berbantuan Platform Alef Education dilihat dari n-gain dinyatakan meningkat. Untuk itu, PBL dengan menggunakan LKPD dengan berbantuan platform alef education dapat menjadi alternatif pembelajaran matematika pada siswa kelas VII.

Kata Kunci: Kemampuan Penalaran Matematis, Kemandirian Belajar, Platform Pendidikan Alef, Problem Based Learning

Abstract

Nurhasana A.L. Sirait: Development of PBL-Based LKPD Assisted by Alef Education Platform to Improve Reasoning Ability and Learning Independence of Students of MtsN Toba Samosir. Medan Thesis: Postgraduate Mathematics Education Study Program, State University of Medan 2025.

Purpose of this study was to determine the validity, practicality, and effectiveness of student worksheets (LKPD) based on PBL assisted by the Alef Education platform, improving students' mathematical reasoning skills, and improving students' learning independence. The type of research used is research and development, the development model used is the Thiagarajan, Semmel learning model, namely the 4-D model. The study was conducted in class VII MTsN Toba Samosir, the research sample was 26 students. The results of the study showed that the LKPD developed was declared valid, practical and effective, the increase in reasoning skills and learning independence of students who learned using LKPD developed with the PBL model assisted by the Alef Education Platform seen from the n-gain was stated to have increased. For this reason, PBL using LKPD assisted by the Alef Education platform can be an alternative for learning mathematics for class VII students.

Keywords: Mathematical Reasoning Ability, Learning Independence, Alef Education Platform, Problem Based Learning.

