

## ABSTRACT

**Yenni Yamin, 8186182034. Development of Mathematical LKPD Based on Scientific Approach to Improve Students' Mathematical Problem Solving at SD Negeri 1 Rimo. Thesis. Medan: UNIMED Postgraduate Basic Education Study Program, 2022.**

This study aims to describe the validity, feasibility, and effectiveness of the LKPD Mathematics based on a scientific approach to improve students' mathematical problem solving abilities. This research is research & development. While the research design used is a 4D Thiagarajan study. The research subjects were conducted to fourth grade teachers and 27 fourth grade students, as well as three validator experts. Data was collected by means of questionnaires, tests, and interviews. Based on the results of material expert validation, an average score of 87.96% was obtained, then the learning design expert validation obtained an average score of 95.31%, and linguist validation obtained an average score of 93.75%. When viewed from the number of three expert validators, an average score of 92.34% was obtained with the LKPD category being very valid and feasible to use. While the results of the student response questionnaire based on small group trials and field trials obtained an average score of 94.95% with a very good category. To find out the improvement of students' mathematical problem solving, the researchers gave pre-test and post-test questions. From the results of the pre-test and post-test, it can be seen that there is an increase in students' mathematical problem solving abilities. The students' pre-test results obtained an average of 54.28% and the post-test results obtained an average of 73.33%. Based on the n-gain score assessment criteria, the effectiveness of the Mathematics LKPD based on a scientific approach obtained a value of 0.41, a score range of  $0.3 < n-gain < 0.7$  was classified in the medium criteria. This shows that the LKPD Mathematics based on a scientific approach is effective in improving students' mathematical problem solving abilities.

**Keywords: LKPD Mathematics, scientific approach, mathematical problem solving.**



## ABSTRAK

**Yenni Yamin, 8186182034. Pengembangan LKPD Matematika Berbasis Pendekatan Saintifik Untuk Meningkatkan Pemecahan Masalah Matematis Siswa di SD Negeri 1 Rimo. Tesis. Medan: Program Studi Pendidikan Dasar Pascasarjana UNIMED, 2022.**

Penelitian ini bertujuan untuk mendeskripsikan kevalidan, kelayakan, dan keefektifan dari LKPD Matematika berbasis pendekatan saintifik untuk meningkatkan kemampuan pemecahan masalah matematis peserta didik. Penelitian ini adalah penelitian pengembangan (*research & development*). Sedangkan desain penelitian yang digunakan adalah penelitian 4D Thiagarajan. Subjek penelitian dilakukan kepada guru kelas IV dan 27 peserta didik kelas IV, serta tiga orang ahli validator. Pengumpulan data dilakukan dengan angket, tes, dan wawancara. Berdasarkan hasil validasi ahli materi diperoleh skor rata-rata 87,96%, kemudian validasi ahli desain pembelajaran diperoleh skor rata-rata 95,31%, dan validasi ahli bahasa diperoleh skor rata-rata 93,75%. Jika dilihat dari jumlah ketiga validator ahli diperoleh skor rata-rata 92,34% dengan kategori LKPD sangat valid dan layak digunakan. Sedangkan hasil angket respon peserta didik berdasarkan uji coba kelompok kecil dan uji coba lapangan diperoleh jumlah skor rata-rata 94,95% dengan kategori sangat baik. Untuk mengetahui peningkatan pemecahan masalah matematis peserta didik, peneliti memberikan soal pre-test dan post-test. Dari hasil pre-test dan post-test dapat diketahui adanya peningkatan kemampuan pemecahan masalah matematis peserta didik. Hasil pre-test peserta didik diperoleh rata-rata 54,28% dan hasil post-test diperoleh rata-rata 73,33%. Berdasarkan kriteria penilaian *n-gain score*, efektivitas LKPD Matematika berbasis pendekatan saintifik memperoleh nilai 0,41 rentang skor  $0,3 \leq g < 0,7$  digolongkan dalam kriteria sedang. Hal ini menunjukkan bahwa LKPD Matematika berbasis pendekatan saintifik efektif meningkatkan kemampuan pemecahan masalah matematis peserta didik.

**Kata kunci: LKPD Matematika, pendekatan saintifik, pemecahan masalah matematis.**