

ABSTRAK

Zahrah Fathinnisa Putri, NIM 4191111050 (2023). Pengembangan Buku Digital Berbasis *Contextual Teaching and Learning* untuk Meningkatkan Kemampuan Pemecahan Masalah Matematis Siswa Kelas VII SMPN 27 Medan.

Penelitian ini bertujuan untuk mengembangkan buku digital yang valid, praktis dan efektif, serta mengetahui peningkatan kemampuan pemecahan masalah matematis siswa setelah menggunakan buku digital berbasis *Contextual Teaching and Learning* pada materi perbandingan senilai. Instrumen penelitian yang digunakan adalah lembar validasi materi dan media buku digital, lembar validasi RPP, lembar validasi angket respon siswa dan guru, lembar validasi tes *pretest* dan *posttest*, angket respon siswa dan guru, tes *pretest*, dan tes *posttest*. Subjek dalam penelitian ini adalah siswa kelas VII-4 SMPN 27 Medan yang berjumlah 30 orang. Hasil penelitian yang diperoleh adalah: (1) cara mengembangkan buku digital yang valid, praktis, dan efektif dilakukan dengan tahapan ADDIE, dimulai dari penganalisisan karakteristik dan kebutuhan sehingga diperoleh solusi, setelah itu buku digital berbasis *Contextual Teaching and Learning* akan dirancang dan dibuat serta divalidasi oleh 3 ahli materi dan 3 ahli media. Setelah itu, dilakukan uji keterbacaan serta menerapkan buku digital selama 3 pertemuan. Buku digital yang dikembangkan dinyatakan valid, praktis, dan efektif, (2) Presentase peningkatan kemampuan pemecahan masalah matematis siswa pada indikator 1 meningkat sebesar 25,93%, pada indikator 2 sebesar 16,11%, pada indikator 3 sebesar 39,63%, dan pada indikator 4 sebesar 57,77%. Serta rata-rata nilai *N-gain* siswa sebesar 0,704 artinya berada pada kategori tinggi.

Kata Kunci: Buku digital, *Contextual Teaching and Learning*, kemampuan pemecahan masalah matematis, perbandingan senilai.



ABSTRACT

Zahrah Fathinnisa Putri, NIM 4191111050 (2023). Development of Contextual Teaching and Learning-Based Digital Books to Improve Mathematical Problem Solving Ability of Class VII Students of SMPN 27 Medan.

This study aims to develop digital books that are valid, practical and effective, as well as to find out the increase in students' mathematical problem-solving abilities after using digital books based on Contextual Teaching and Learning on comparative value material. The research instruments used were material validation sheets and digital book media, lesson plans validation sheets, student and teacher response questionnaire validation sheets, pretest and posttest test validation sheets, student and teacher response questionnaires, pretest tests, and posttest tests. The subjects in this study were 30 students of class VII-4 SMPN 27 Medan. The research results obtained are: (1) how to develop digital books that are valid, practical, and effective is carried out with the ADDIE stages, starting from analyzing characteristics and needs so that solutions are obtained, after that digital books based on Contextual Teaching and Learning will be designed and made and validated by 3 material experts and 3 media experts. After that, a readability test was carried out as well as implementing digital books for 3 meetings. The developed digital book is stated to be valid, practical, and effective, (2) The percentage of students' mathematical problem solving ability improvement percentage in indicator 1 increases by 25.93%, in indicator 2 is 16.11%, in indicator 3 is 39.63%, and on indicator 4 of 57.77%. And the average N-gain value of students is 0.704, which means they are in the high category.

Keywords: Digital books, Contextual Teaching and Learning, mathematical problem solving ability, comparison of values.

