

ABSTRAK

PENGEMBANGAN ALAT PERAGA PEMBELAJARAN MATEMATIKA BERBASIS MONTESSORI UNTUK KONSEP PECAHAN PADA SISWA KELAS IV SD

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Penelitian ini bertujuan untuk mengembangkan alat peraga *Fraction Montessori* terkait materi penjumlahan dan pengurangan pada bilangan pecahan berbasis metode Montessori. Alat peraga untuk pecahan masih jarang dan sederhana. Siswa juga kesulitan dalam memahami dan mengerjakan soal pecahan. Penelitian ini dilaksanakan pada siswa kelas IV.

Jenis penelitian ini adalah penelitian dan pengembangan. Prosedur pengembangan menggunakan Model ADDIE. Prosedur pengembangan Model ADDIE menggunakan lima tahapan yaitu, *Analysis*, *Design*, *Development*, *Implementation*, dan *Evaluation*. Instrumen yang digunakan dalam penelitian ini adalah daftar pertanyaan wawancara, observasi, lembar soal dan kuesioner. Kuesioner digunakan untuk validasi kualitas alat peraga dan album alat peraga *Fraction Montessori* oleh dosen ahli Montessori dan guru kelas IV.

Produk dikembangkan berdasarkan karakteristik alat peraga Montessori seperti, *auto-education*, *auto-correction*, bergradasi, menarik dan kontekstual. Produk *Fraction Montessori* berbasis Montessori dikembangkan dengan kualitas yang sangat baik dan layak digunakan berdasarkan validasi oleh ahli Montessori, dan guru kelas IV SD Negeri 2 Sungapan dengan rata-rata penilaian alat peraga 3,28 dan 3,32 (skala 1- 4). Uji coba terbatas menunjukkan hasil yang sangat positif dengan rata-rata pretest 58 dan posttest 100. Dengan demikian dapat disimpulkan bahwa, alat peraga *Fraction Montessori* memiliki kualitas yang sangat baik, dan layak untuk digunakan.

Kata kunci: alat peraga *Fraction Montessori*, metode Montessori, penelitian dan pengembangan, matematika, dan bilangan pecahan.

ABSTRACT

DEVELOPMENT OF MATHEMATICAL LEARNING PROPS CLASS IV SD MATERIAL FRACTION MONTESSORI METHODS

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This study aims to develop the development of Fraction Montessori props related to the addition and reduction of fraction based on the Montessori method. Props for Fraction are still rare and simple. Students also have understanding and working on fraction problems. The study was conducted in fourth grade students.

The study used Research and Development. Development procedures using ADDIE models. Procedures ADDIE models using five stages, Analysis, Design, Developent, Implementation, dan Evaluation. The instrument used in this study was a list of interview questions, ovbservations, questions, and questionnaire. The questionnaire was used to validate the quality of the props Fraction Montessori and album of props Fraction Montessori by Montessori ecpert lecturers and grade IV teachers.

The products developed based on the characteristics of Montessori teaching aids such as auto-education, auto correction, graded, interesting, and contextual. Fraction Montesssori products based on the Montessori method that are developed with very good quality and suitable for use based on validation by Montessori experts, and grade IV theachers with an average rating of teaching aids 3,28 and an album 3,32 (1- 4 scale). Limited trials showed very positive results with a pretest average of 58 and post-test 100. Thus, it was concluded that the Fracton Montessori props were of very good quality, suitable for use.

Keywords: Fraction Montessori props, Montessori method, research and development, Mathemantics. and fraction.