

ABSTRAK**PENGEMBANGAN ALAT PERAGA *DECIMAL CHEKERBOARD* BERBASIS METODE MONTESSORI MATA PELAJARAN MATEMATIKA PADA MATERI PERKALIAN BILANGAN DESIMAL UNTUK SISWA KELAS IV SD**

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Alat peraga yaitu suatu benda konkret yang dapat membantu siswa dalam memahami materi pembelajaran. Berdasarkan hasil analisis kebutuhan menyatakan bahwa guru dan siswa kelas IV SD sangat membutuhkan dan memerlukan alat peraga terkait materi perkalian bilangan desimal untuk membantu siswa yang masih kesulitan dalam memahami materi pembelajaran. Oleh sebab itu, penelitian ini bertujuan untuk (1) mengembangkan alat peraga *Decimal Chekerboard* terkait materi perkalian bilangan desimal; dan (2) mengetahui kualitas alat peraga *Decimal Chekerboard* terkait materi perkalian bilangan desimal.

Penelitian ini termasuk jenis penelitian dan pengembangan (R&D). Subjek dalam penelitian ini adalah 5 siswa kelas IV SD. Objek dalam penelitian ini adalah alat peraga beserta album *Decimal Chekerboard* untuk materi perkalian bilangan desimal. Data dalam penelitian ini dikumpulkan menggunakan teknik observasi, wawancara, kuesioner dan tes.

Hasil penelitian menunjukkan bahwa: (1) alat peraga *Decimal Chekerboard* terkait materi perkalian bilangan desimal dikembangkan menggunakan model ADDIE, yaitu *Analyze, Design, Development, Implementation, Evaluate*; (2) kualitas alat peraga *Decimal Chekerboard* terkait materi perkalian bilangan desimal memiliki kualitas “Sangat Baik” dengan rerata skor 3,6 menggunakan skala *likert* (empat) sedangkan kualitas album *Decimal Chekerboard* terkait materi perkalian bilangan desimal memiliki kualitas “sangat baik” dengan rerata skor 3,7 menggunakan skala *likert* (empat) dan memenuhi lima kriteria metode Montessori, yaitu (1) *auto-education*, (2) *auto-correction*, (3) bergradasi, (4) menarik, dan (5) kontekstual. Uji coba terbatas menunjukkan hasil yang sangat positif dengan rata-rata *pretest* 54,6 dan *posttest* 84,0 dengan kenaikan 83,44 %. Dengan demikian, disimpulkan bahwa alat peraga *Decimal Chekerboard* memiliki kualitas “Sangat Baik”, layak digunakan dan membantu siswa memahami materi perkalian bilangan desimal.

Kata kunci: alat peraga *Decimal Chekerboard*, metode Montessori, dan penelitian dan pengembangan

ABSTRACT**DEVELOPMENT OF DECIMAL CHEKERBOARD TEACHING AIDS BASED ON MONTESSORI METHODS OF MATHEMATICS DECIMAL NUMBER MULTIPLICATION MATERIAL FOR FOURTH GRADE ELEMENTARY SCHOOL STUDENTS**

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Teaching aids are concrete objects that can help students understand the learning material. Based on the results of the needs analysis stated that teachers and fourth grade elementary school students really need and need teaching aids related to decimal numbers multiplication material to help students who are still having difficulty understanding learning material. Therefore, this study aims to (1) developed Decimal Chekerboard props related to decimal number multiplication material; and (2) to determine the quality of Decimal Chekerboard props related to decimal number multiplication material.

This research is a type of research and development (R&D). The subjects in this study were 5 fourth grade elementary school students. The object of this research is teaching aids along with the Decimal Chekerboard album for decimal numbers multiplication material. Data in this study were collected using observation techniques, interviews, questionnaires and tests.

The result showed that: (1) Decimal Chekerboard props related to decimal number multiplication material were developed using the ADDIE model, namely Analyze, Design, Development, Implementation, Evaluation; (2) the quality of Decimal Chekerboard props related to multiplication material of decimals has "Very Good" quality with a mean score of 3,6 using a scale likert (four) while the quality with a mean score of 3,7 using a scale likert (four) and meets five criteria of the Montessori method, namely (1) auto-education, (2) auto-correction, (3) graded, (4) interesting, and (5) contextual. Limited trials showed very positive results with an average pretest of 54,6 and posttest 84,0 with an increase of 83,44 %. This, it was concluded that the Decimal Chekerboard props were of "Very Good" quality, worthy of use and helped students understand the material for multiplication of decimal numbers.

Keywords: Decimal Chekerboard props, Montessori methods, and research and development.