

**PENGEMBANGAN MULTIMEDIA INTERAKTIF BERBASIS  
ETNOMATEMATIKA JEJAHITAN BALI PADA MATERI BANGUN  
DATAR SISWA KELAS IV DI SD NO. 2 SADING**

Oleh

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**ABSTRAK**

Penelitian pengembangan dilatarbelakangi permasalahan rendahnya hasil belajar matematika siswa, penelitian ini memiliki tujuan (1) mendeskripsikan rancang bangun multimedia interaktif berbasis etnomatematika jejahitan Bali pada materi bangun datar, (2) mengetahui validitas multimedia interaktif berbasis etnomatematika jejahitan Bali pada materi bangun datar, (3) mengetahui kepraktisan multimedia interaktif berbasis etnomatematika jejahitan Bali pada materi bangun datar, (4) mengetahui efektivitas multimedia interaktif berbasis etnomatematika jejahitan Bali pada materi bangun datar. Penelitian pengembangan ini menggunakan model ADDIE (*Analyze, Design, Development, Implementation, Evaluation*). Subjek penelitian yaitu siswa kelas IV berjumlah 28 siswa. metode pengumpulan data adalah wawancara, observasi, angket, dan tes. Teknik analisis data yaitu analisis deskriptif kualitatif, deskriptif kuantitatif, dan analisis deskriptif inferensial. Hasil penelitian ini menunjukkan: (1) rancang bangun multimedia interaktif berbasis etnomatematika jejahitan Bali yang memuat unsur visual, animasi, interaktivitas, (2) validitas multimedia interaktif berbasis etnomatematika jejahitan Bali menunjukkan hasil dari uji ahli isi/materi pembelajaran sebesar 96,67%, hasil uji ahli desain instruksional sebesar 95%, hasil uji media pembelajaran sebesar 95%, (3) kepraktisan multimedia interaktif berbasis etnomatematika jejahitan Bali menunjukkan hasil dari uji coba perorangan sebesar 96,11%, uji coba kelompok kecil sebesar 95,74%, (4) efektivitas multimedia interaktif berbasis etnomatematika jejahitan Bali dengan *uji-t sampel dependent* memperoleh hasil perhitungan  $t_{hitung} = 7,209 > t_{tabel} 1,703$  pada taraf signifikansi 5% dan  $db = 27$ , sehingga  $H_0$  ditolak dan  $H_1$  diterima memuat keputusan terdapat peningkatan yang signifikan pada hasil belajar matematika sebelum dan sesudah menggunakan multimedia interaktif berbasis etnomatematika jejahitan Bali pada materi bangun datar. Maka disimpulkan multimedia interaktif berbasis etnomatematika jejahitan Bali efektif diterapkan untuk meningkatkan hasil belajar matematika pada materi bangun datar siswa kelas IV di SD No. 2 Sading.

**Kata Kunci:** Pengembangan. Multimedia interaktif, Etnomatematika, Jejahitan Bali, Bangun Datar

## ABSTRACT

The development research is motivated by the problem of low student mathematics learning outcomes, the objectives of this study were (1) describing the design of interactive multimedia based on Balinese *jejahitan* ethnomathematics on plane geometry material, (2) to determine the validity of interactive multimedia based on Balinese *jejahitan* ethnomathematics on plane geometry material, (3) to determine the practicality of interactive multimedia based on Balinese *jejahitan* ethnomathematics on plane geometry material, (4) to determine the effectiveness of interactive multimedia based on Balinese *jejahitan* ethnomathematics on plane geometry material. This research employed the ADDIE development model (Analyze, Design, Development, Implementation, Evaluation). The research subjects were 28 fourth grade students. Data were collected through interviews, observations, questionnaires, and tests. The data were analyzed using qualitative descriptive analysis, quantitative descriptive analysis, and inferential descriptive analysis. The results of this study indicate: (1) the development of interactive multimedia based on Balinese *jejahitan* ethnomathematics contains visual elements, animation, interactivity, (2) the validity results indicated a score of 96.67% from subject matter experts, 95% from instructional design expert, and 95% from learning media experts, (3) the practicality results showed 96.11% in individual trials and 95.74% in small group trials, (4) the effectiveness using a paired sample t-test obtained  $t_{hitung} = 7.209 > t_{tabel} 1.703$  at a significance level of 5% with  $db = 27$ , indicating that  $H_0$  was rejected and  $H_1$  was accepted. This means there was a significant improvement in student mathematics learning before and after using interactive multimedia based on Balinese *jejahitan* ethnomathematics on plane geometry material. Therefore, it can be concluded that the interactive multimedia based on Balinese *jejahitan* ethnomathematics is effective in improving fourth grade students' mathematics learning outcomes on plane geometry material at SD No. 2 Sading.

**Keywords:** Development, Interactive Multimedia, Ethnomathematics, Balinese *Jejahitan*, Plane Geometry