# PENGEMBANGAN APLIKASI INTERAKTIF BERBASIS KONTEKSTUAL *LEARNING* MATERI BANGUN DATAR KELAS IV DI SD NO 2 SEMBUNG KECAMATAN MENGWI KABUPATEN BADUNG

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## ABSTRAK

Penelitian ini bertujuan untuk mendeskripsikan rancang bangun dan mendeskripsikan validitas media pembelajaran aplikasi interaktif berbasis kontekstual *learning* materi keliling dan luas daerah bangun datar persegi, persegi panjang, dan segitiga serta hubungan pangkat dua dan akar pangkat dua menurut para ahli dan uji coba produk. Penelitian ini merupakan penelitian dan pengembangan (*Research and Development*). Pengujian produk yang dikembangkan dilakukan oleh tiga orang ahli, yang meliputi: ahli isi pembelajaran, ahli desain pembelajaran, ahli media pembelajaran serta siswa sebagai subjek uji coba produk yang dikembangkan meliputi uji coba perorangan dan uji coba kelompok kecil. Jenis penelitian yang dilakukan ini merupakan penelitian pengembangan dengan model ADDIE (*Analyze, Design, Development, Implementation, Evaluation*) sebagai langkahg-langkah sistematis dalam pengembangan produk. Metode pengumpulan data pada penelitian ini menggunakan kuesioner atau angket. Analisis data yang digunakan yaitu teknik analisis deskriptif kuantitatif dan deskriptif kualitatif. Media pembelajaran aplikasi interaktif berbasis kontekstual *learning* materi keliling dan luas daerah bangun datar persegi, persegi panjang, dan segitiga serta hubungan pangkat dua dan akar pangkat dua dinyatakan valid dengan: (a) hasil uji rancang bangun memperoleh hasil bahwa produk aplikasi interaktif berbasis kontekstual *learning* yang dikembangkan sesuai dengan model pengembangan ADDIE. (b) hasil *review* ahli isi pembelajaran memperoleh persentase 90,90% dengan kualifikasi sangat baik. (c) hasil *review* ahli desain pembelajaran memperoleh persentase 94,25% dengan kualifikasi sangat baik. (d) hasil *review* ahli media pembelajaran memperoleh persentase 91,07% dengan kualifikasi sangat baik. (e) hasil uji coba perorangan memperoleh persentase 95,45% dengan kualifikasi sangat baik. (f) hasil uji coba kelompok kecil memperoleh persentase 93,43% dengan kualifikasi sangat baik. Berdasarkan hasil *review* para ahli dan hasil subjek uji coba perorangan dan uji coba kelompok kecil, dapat disimpulkan bahwa media pembelajaran aplikasi interaktif berbasis kontekstual *learning* adalah media yang layak digunakan dalam pembelajaran matermatika materi keliling dan luas daerah bangun datar persegi, persegi panjang, dan segitiga serta hubungan pangkat dua dan akar pangkat dua di kelas IV SD.

**Kata-kata kunci:** Pengembangan, Aplikasi Interaktif, Kontekstual *Learning,* Matematika

## ABSTRACT

*This study aims to describe the design and describe the validity of interactive application learning media based on contextual learning material about the circumference and area of a square, rectangle, and triangle as well as the relationship of the cube and the square root according to the experts and product trials. This research is a research and development (Research and Development). Testing of the developed product was carried out by three experts, which included: learning content expert, instructional design expert, learning media expert and students as test subjects for the product developed including individual trials and small group trials. This type of research is a development research using the ADDIE model (Analyze, Design, Development, Implementation, Evaluation) as systematic steps in product development. The data collection method in this study used a questionnaire or questionnaire. The data analysis used is descriptive quantitative and qualitative descriptive analysis techniques. Interactive application learning media based on contextual learning material about the perimeter and area of squares, rectangles, and triangles as well as the relationship of the cube and the square root are declared valid by: (a) the results of the design test result that the interactive application product based on contextual learning is developed according to the ADDIE development model. (b) the results of the expert review of learning content obtained a percentage of 90.90% with very good qualifications. (c) the results of the learning design expert review obtained a percentage of 94.25% with very good qualifications. (d) the results of the learning media expert review obtained a percentage of 91.07% with very good qualifications. (e) individual trial results obtained a percentage of 95.45% with very good qualifications. (f) the results of the small group trial obtained a percentage of 93.43% with very good qualifications. Based on the results of expert reviews and the results of individual test subjects and small group trials, it can be concluded that the interactive application learning media based on contextual learning is a media that is suitable for use in learning mathematics about the circumference and area of square, rectangular, and triangular shapes as well as the relationship of cubes and square roots in fourth grade elementary school.*

*Keywords: Development, Interactive Applications, Contextual Learning, Mathematics*