

## INTISARI

# RANCANG BANGUN APLIKASI MEDIA PEMBELAJARAN BERBASIS ANDROID UNTUK SISWA TUNAGRAHITA SEKOLAH LUAR BIASA

Nanang Arifudin

19/441232/SV/16584

Semua warga negara Indonesia memiliki hak yang sama untuk mendapatkan pendidikan yang setara, termasuk anak-anak dengan kebutuhan khusus. Sekolah Luar Biasa (SLB) di Indonesia menyediakan pendidikan untuk siswa dengan berbagai kebutuhan khusus, salah satunya adalah tunagrahita, yang memiliki tingkat IQ yang beragam, memengaruhi kegiatan belajar mengajar siswa tunagrahita terutama dalam hal membaca. Metode pembelajaran membaca konvensional masih umum digunakan di SLB, sehingga memerlukan tingkat kesabaran yang tinggi dari guru dan bergantung pada kemampuan guru. Penulis mengembangkan sebuah aplikasi media pembelajaran membaca berbasis Android sebagai alternatif media pembelajaran untuk mengatasi tantangan ini.

Aplikasi ini menitikberatkan pada materi membaca dan dilengkapi dengan latihan soal, audio, gambar, manajemen siswa, serta catatan riwayat belajar. Proses rancang bangun aplikasi ini melibatkan serangkaian tahap, termasuk analisis kebutuhan pengguna, perancangan, implementasi, dan pengujian. Bahasa pemrograman kotlin digunakan dalam pengembangan aplikasi ini, dan *Firebase* digunakan sebagai tempat penyimpanan basis data.

Hasil penelitian menunjukkan bahwa aplikasi ini telah berhasil dikembangkan dan memenuhi standar kualitas setelah melalui serangkaian pengujian, termasuk *beta testing*, *responsive testing*, *instrumentation testing*, dan *user acceptance testing*. Aplikasi ini diharapkan dapat membantu guru dalam mengajar siswa, khususnya dalam keterampilan membaca, dan menjadi alat bantu yang efektif dalam pembelajaran.

Kata kunci: android, aplikasi, media pembelajaran, tunagrahita

## ABSTRACT

### DESIGN AND DEVELOPMENT OF ANDROID-BASED LEARNING MEDIA APPLICATION FOR STUDENTS WITH INTELLECTUAL DISABILITIES IN SPECIAL SCHOOLS

Nanang Arifudin

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*Equal access to education is a fundamental right for all citizens of Indonesia, including those with special needs. Special Schools (SLBs) in Indonesia play a pivotal role in catering to the educational needs of students with diverse special requirements. Among these students are those with intellectual disabilities, who exhibit varying IQ levels that significantly impact their learning processes, particularly in the domain of reading. The conventional methods employed for teaching reading within SLBs often necessitate an extraordinary degree of patience from educators and are heavily reliant on the individual abilities of teachers. In response to these challenges, this research project focuses on the development of an Android-based learning media application to serve as an alternative pedagogical tool. This application centers on the delivery of reading materials and is enriched with exercises, audio support, visual aids, student management functionalities, and the provision of comprehensive learning progress records.*

*The application's development process encompasses a sequence of crucial phases, including rigorous user needs analysis, meticulous design, efficient implementation, and thorough testing. The Kotlin programming language is employed in the development, while Firebase serves as the primary database storage solution.*

*The research findings demonstrate that the application has been meticulously developed and rigorously tested to meet established quality standards, including beta testing, responsive testing, instrumentation testing, and user acceptance testing. It is anticipated that this application will serve as a valuable aid for educators in enhancing the teaching of students, particularly in the vital skill of reading. Ultimately, it is expected to emerge as an effective instrument for facilitating and enriching the overall learning experience within the special needs education context.*

*Keywords: android, application, learning media, intellectual disabilities*