

## INTISARI

### PENGEMBANGAN APLIKASI EDUKASI INKLUSIF “LEARNABLE – APLIKASI PEMBELAJARAN UNTUK ANAK TUNARUNGU” BERBASIS ANDROID DENGAN FITUR PEMBELAJARAN INTERAKTIF DAN ADAPTIF

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Penyandang tunarungu membutuhkan media pembelajaran berbasis visual, teks sederhana, dan antarmuka yang mudah diakses. Berdasarkan kebutuhan tersebut, penelitian ini mengembangkan aplikasi edukasi inklusif “LearnAble – Aplikasi Pembelajaran untuk Anak Tunarungu” berbasis Android sebagai media edukasi inklusif yang mendukung proses belajar di sekolah luar biasa.

Penelitian menggunakan pendekatan *User-Centered Design* (UCD) melalui wawancara guru, observasi, dan analisis kebutuhan siswa di Sekolah Luar Biasa Negeri 2 Bantul. Aplikasi dikembangkan menggunakan Kotlin dengan arsitektur *Model-View-ViewModel* (MVVM) dan dilengkapi fitur kuis interaktif, *chatbot* edukatif, pelacakan progres belajar, penyesuaian ukuran teks, serta manajemen materi pembelajaran bagi guru.

Pengujian *Black Box Testing* menunjukkan seluruh fungsi aplikasi berjalan dengan baik, sedangkan *User Acceptance Testing* (UAT) memperoleh nilai 91% dari guru dan 95% dari siswa. Hasil tersebut menunjukkan bahwa “LearnAble” layak dan efektif digunakan sebagai media pembelajaran bagi anak tunarungu.

**Kata kunci:** pendidikan inklusif, tunarungu, aplikasi Android, pembelajaran interaktif, teknologi pendidikan.

## **ABSTRACT**

### ***DEVELOPMENT OF THE INCLUSIVE EDUCATION APPLICATION “LEARNABLE – AN ANDROID-BASED LEARNING APPLICATION FOR DEAF CHILDREN” WITH INTERACTIVE AND ADAPTIVE LEARNING FEATURES***

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*Deaf individuals require visual-based learning media, simple text, and an accessible interface. Based on these needs, this study developed an inclusive education application called “LearnAble – Learning Application for Deaf Children” based on Android as an inclusive educational medium that supports the learning process in special schools.*

*The research used a User-Centered Design (UCD) approach through interviews with teachers, observations, and analysis of student needs at State Special School 2 Bantul. The application was developed using Kotlin with a Model-View-ViewModel (MVVM) architecture and is equipped with interactive quiz features, educational chatbots, learning progress tracking, text size adjustment, and learning material management for teachers.*

*Black Box Testing showed that all application functions worked well, while User Acceptance Testing (UAT) obtained a score of 91% from teachers and 95% from students. These results indicate that “LearnAble” is feasible and effective for use as a learning medium for deaf children.*

**Keywords:** *inclusive education, deafness, Android application, interactive learning, educational technology.*