

Abstract

Early marriage among individuals of immature age continues to draw significant attention in Lombok. As of 2021, the prevalence rate stands at 16.59%, indicating that this social issue remains unresolved within the region's community dynamics. Limited access to counseling services particularly in rural areas poses a significant barrier to prevention efforts. This study introduces a virtual counseling chatbot designed to detect and correct Indonesian language text errors during user interactions. The system integrates IndoRoBERTa for error detection and Mistral-7B-Instruct to refine speech to text transcriptions. IndoRoBERTa was trained on synthetic datasets to classify user input as accurate or incorrect, while Mistral-7B-Instruct generates context aware corrections. Achieving an accuracy rate of 98.90%, IndoRoBERTa outperformed benchmark models such as BERT and RNN. The proposed chatbot offers an adaptive and accessible digital solution, especially for communities with limited access to conventional counseling services. This approach highlights the potential of AI-driven tools to support early intervention strategies and reduce the incidence of child marriage in underserved regions.

Keywords: Early Marriage, Virtual Counseling, IndoRoBERTa, Mistral-7B-Instruct, Speech to Text