

Voice-Driven AI Chatbot for Early Childhood Education

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1. Problem Statement

Early learners often struggle to access engaging and personalized educational content

Traditional methods require adult assistance and lack interaction

There's a need for a voice driven solution that enables independent, fun learning for kids

2. Scope

Android mobile application

Designed for children

Voice interaction via Google Speech-to-Text

AI-powered response using Gemini API

Audio output using Google Text-to-Speech

3. Basic Workflow

- 1 Child speaks
- 2 Speech-to-Text (Google API)
- 3 AI Processing (Gemini)
- 4 Text-to-Speech
- 5 Child hears response



Gemini



4. Future Enhancements

- Multilingual support
- Interactive educational games
- Emotion and intent detection
- Progress tracking for parents
- Offline learning mode

