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## Developing a Chatbot for EFL Learners: Process and Insights

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In an EFL environment, opportunities to interact with native speakers in English are often limited. However, the rise of generative AI has opened up new possibilities for EFL learners. Chatbots can now interact with learners in a more human-like manner. In this presentation, we will introduce a chatbot we developed: CoolE Bot. This English chatbot, powered by ChatGPT, integrates Text-to-Speech (TTS) and automatic speech recognition (ASR) functions, featuring design elements specifically tailored for EFL learners. CoolE Bot includes themes and tasks that provide guidance and context for student interactions. An example is the “Invited Talk” feature, where students select chatbots representing various professions. This allows them to engage in domain-specific conversations and to explore their career interests, enriching their learning experience.

CoolE Bot was developed over three phases. Phase 1 involved developing text and voice chatting, sentence translation, TTS playback, and AI-assisted responses. In Phase 2, we conducted a study where students used CoolE Bot, and we improved it based on feedback. Phase 3 added new features such as adjustable TTS speed, response correction, and chat log downloads.

About the study in Phase 2, five college students were invited to use CoolE Bot’s Invited Talk section through text and voice communication. They then completed evaluation questionnaires and received interviews to provide feedback. The initial results showed that CoolE Bot’s responses were clear, and the interface was intuitive. They also identified areas for further improvements such as adding more chatbot roles, topics, and tasks, and refining the ASR mechanism to improve the overall user experience.

### Keywords

AI; ChatGPT; theme-based English chatbot; EFL learning; TTS; ASR

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