World Academy of Science, Engineering and Technology International Journal of Educational and Pedagogical Sciences Vol:18, No:07, 2024

Building AI Chatterbot Database and Interacting with Chatterbots to Improve English Oral Speaking Ability

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Abstract : This research investigates the integration of AI chatterbots and project-based learning (PBL) to enhance students' English oral speaking ability, addressing the challenge of limited speaking practice time in traditional classrooms. Employing a qualitative research approach with 29 second-year Applied English students, the study explores the effectiveness of utilizing AI technology to create chatbots for conversation practice and involves students in constructing chatbot databases. Participants engage in interactions with chatbots developed using Python, providing feedback on their experiences and contributing to the enrichment of chatbot databases. Oral speaking proficiency is assessed using the ECPE-Rating-Scale-Speaking, and qualitative interviews are conducted to gather insights into students' perceptions and learning outcomes. Findings indicate that interacting with chatbots positively impacts students' English learning experiences by providing a flexible and low-pressure environment for speaking practice. Involvement in building chatbot databases enhances students' confidence in using AI technologies and fosters critical thinking skills. Despite overall effectiveness, some students may face technical difficulties or lack of interest, highlighting the need for personalized approaches. This research underscores the potential of AI technologies and PBL to revolutionize language education, equipping students with essential skills for success in the 21st century globalized world.

Keywords: CALL, PBL, speaking skill, AI, chatbot

Conference Title: ICES 2024: International Conference on Educational Sciences

Conference Location: Prague, Czechia Conference Dates: July 04-05, 2024