Project Summary for IAL Website

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Project Title:	Developing personalized Chatbots and evaluating their effectiveness as teaching assistants in adult learning
Project Number:	GA20-03
Year of Approval:	2021
Funding Source:	WDARF
Objectives and intended outcomes of the project:	Develop personalized Chatbot platform and design relevant training to equip adult learning educators to tap into new digital tools to support remote/online teaching and learning via effective use of Chatbot
Project Team	
Principal Investigator:	Dr Miao Huang
Summary of Project (up to 300 words)	

Chatbots are conversational interfaces that answer questions and guide users to perform simple tasks, which have become our daily virtual assistants, capable of conversing, forming user-oriented responses, and retrieving information from search engines or curated databases. The project aims to use Chatbots to enhance the adult learning experiences, especially for remote or online courses, or a fast-paced upskill/reskill CET programs.

By creating an AI-based teaching assistant using a Chatbot, it will enable tutors to provide adult learners with individualized learning experiences and pathways. Chatbots will be able to access learning analytics data of learners to provide customized content based on their needs. For instance, the Chatbot identifies areas where academically slow-advancing CET learners require more assistance and refers them to more appropriate and relevant resources. The instantaneous and efficient communication allows the learner to ask questions, seek clarifications, and assistance without being judged for the volume or content of their inquiries. The Chatbot can also contain assessment or assignment information to help learners to prioritize their time.

A protocol is being developed for tutors to curate and validate a list of questions, suitable learning resources, and diagnose learning needs in order to program their Chatbots to provide personalized feedback and individualized coaching. Tutors with various levels of expertise in Infocomm technology readiness will participate in this study by developing subject-specific Chatbots and implementing them for their adult learners.

Perceptions from both tutors and learners would be gathered to draw insights on various factors that affect the benefits, as well as the major challenges of using Chatbots as the conversational pedagogical agent to support the attainment of learning outcomes for the adults.