Project Summary for IAL Website

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Project Title:	"Do you know how you present?": Effectiveness of VR-augmented feedback for effective oral presentation
Project Number:	GA20-08
Year of Approval:	2021
Funding Source:	WDARF
Objectives and intended outcomes of the project:	1. To develop the presenters' presentation skills for engaging the adult audience in a virtual training environment. 2. To investigate the effectiveness of the virtual reality-based environment in improving presenters' oral presentation skills.
Project Team	
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Summary of Project (up to 300 words)	

In any training situation, the instructors' competence in speaking to the audience will be crucial to the effectiveness of a training course. However, many instructors have limited competencies to deliver an effective oral presentation to the audience, the problems may be due to eye contact, gesture and verbal fluency. One way to develop the speakers' presentation skills is to provide them feedback based on their previously training videos, but such feedback given by the human expert is often limited by their limited angles of observation. Consequently, details of the speakers' facial expressions, changes in speaking speed and eye contact cannot be synchronously captured and analyzed fully by the human observer. Virtual Reality (VR) may potentially help to address the limited feedback provided by the human observer on the speakers' speaking competence problem by generating immediate and data-based feedback for the presenters' speaking. Such VR generated feedback allows the speakers to become more aware of their challenges in speaking and work towards improving their speaking. Moreover, VR can simulate an interactive and real classroom environment setting by allowing the speakers to experience and immerse themselves fully in the environment without any real human interference.

Studies on the use of VR for enhancing training effectiveness are rare, and the effect also remains questionable. This study will design the VR-augmented feedback environment to investigate the effectiveness of VR-augmented feedback in training. With this consideration, the objectives of this project are the following:

1. To develop the presenters' presentation skills for engaging the adult audience in a virtual training environment.
2. To investigate the effectiveness of the virtual reality-based environment in improving presenters' oral presentation skills.

This research will invite 128 participants to participate, randomly assign them in the VR augmented-feedback environment and human experts' feedback. For participants' continuous improvements, every participant has three times to give presentations. Experts will also use the developed rubrics to assess presenters' performance. The effectiveness of the VR training environment will be explored through comparison.

The research is expected to be directly applicable to continuing education practice. The virtual training environment, rubrics and research design have the possibilities to be replicated or adapted to different contexts of continuing education and training in Singapore and Asian countries.