

## Can Home Use of Speech-Enabled Artificial Intelligence Mitigate Foreign Language Anxiety – Investigation of a Concept

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### Abstract

The harmful effects of speech-related anxiety among learners and users of foreign language is well documented. Aiming to investigate the potential of reducing anxiety through ad libitum interaction with Artificial Intelligence chatbots, a controlled pilot study was conducted on East Asian staff of a large financial institution over a 4-week period, the sample of 40 divided between a test group using AI and the non-exposed subjects. Variety of measures were employed to gain as comprehensive an insight as warranted given the study limitations of a small sample, brief study period and relatively unsophisticated but freely available AI chatbot. The measures ranged from surveys of anxiety, attitudes toward daily chatbot usage, oral interviews and IELTS testing of English speaking ability. The results were cautiously encouraging: nearly universal endorsement of AI as a non-threatening interlocutor positively impacting subjects' confidence and to the extent limited by time constraint, enhancing individual components of the IELTS paradigm. Moreover, significant linear relationship between individual anxiety survey items and overall IELTS scores at baseline was observed, lending a measure of validity to the construct developed for the occasion. In summary, it is felt that subject to further development and refinement, conversationally enhanced AI chatbots hold a significant promise toward reducing speech-related anxieties and learning inhibitions of English as a foreign language and thus merit further investigation toward this objective.

**Keywords:** Adult Learning, Artificial Intelligence, Foreign Language Anxiety, IELTS, Non-Human Interlocutor

**Cite as:** Bao, M. (2019). Can Home Use of Speech-Enabled Artificial Intelligence Mitigate Foreign Language Anxiety – Investigation of a Concept. *Arab World English Journal (AWEJ) Special Issue on CALL (5)*. 28 -40. DOI: <https://dx.doi.org/10.24093/awej/call5.3>