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Title	プレゼンテーションの実演練習支援システムに関する 研究 中国人初心者を中心にした検討
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## Abstract

In recent years, the presentation skills for communicating information and knowledge are as important as social skills. Therefore, in this study, a real-time presentation practice support system named PRESENCE was developed. PRESENCE provides real-time checking of undesired status in body expressions and vocal expressions, which are the focus on presentation beginners, and provides vocal feedback and visual feedback for the desired status. In order to investigate the influence of the second language, we focused on Chinese beginners of presentation. Therefore, we are targeting the body expressions, such as "body orientation (vertical direction of the face)" and "orientation of the body (horizontal direction of the body)" which are elementary presentation expressions and "voice volume" of the vocal expressions. We implemented real-time feedback function which with Chinese version and Japanese version. As a result of various experiments using PRESENCE, the following findings were obtained.

(1) PRESENCE's vocal feedback function affects the direction of improving body expressions and vocal expressions practice in presentation demonstration practice in Chinese beginners, and that the vocal feedback function is more effective than the visual feedback function. Therefore, it was found that the vocal feedback function is preferable to the visual feedback as the real-time practice support system of the presentation.

(2) The presentation practice with second language (Japanese) is different from the presentation practice with the mother language (Chinese). And because of the language ability of the presentation practitioner has an influence, the undesirable state such as gazing at the slide easily occurs. Therefore, we found that the influence of visual feedback is larger than the influence of speech feedback. Therefore, in the support function and using practice support system using the second language, it is desirable to consider the language ability of the presenter.

(3) In the practice experiment which mixed with presentation beginners and advanced participants, the third-party evaluation is more stable than self-evaluation. And there was a high correlation with the third-party evaluation item "overall impression" and "gesture rate", "voice rate". Based on this result, in order to realize evaluation for beginners to advanced participants, we got a policy to develop an evaluation index that refines gesture rate and voice volume rate.

This study is obtained by computer support (support by formalization) of body expressions and vocal expressions which have been treated as experience knowledge (tacit knowledge), and are thought to contribute to knowledge science.

Keyword: presentation, support system, body expressions, vocal expressions, presentation evaluation