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Title	外国語教育における質問力と観察力に注目したイノベーション思考スキルの育成
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## Abstract

This study designed two foreign language pedagogies to improve students' innovative thinking skills and investigated their effectiveness. In addition, the influencing factors of foreign language teachers' acceptance of the pedagogies were investigated, and a model of acceptance of the pedagogy was constructed.

Innovation, as an important capability in the 21st century, is an important catalyst for people to make progress in a rapidly changing world. Given the importance of innovation and society's demand for talents who can innovate, courses in many subject areas of higher education have begun to focus on the cultivation of innovative thinking, including foreign language subjects. However, most existing foreign language pedagogies mainly focus on the cultivation of language knowledge and skills, and there is little research on the development of foreign language pedagogies that improve innovative thinking.

In order to solve the above problem, this study focused on the questioning ability and observation ability that represent innovative thinking skills, improved the questioning activities and video-audio-visual activities commonly used in foreign language education, and designed two foreign language pedagogies, and investigated their effectiveness.

The foreign language pedagogy centered on student questioning activities promoted students' questioning abilities through three links: Question brainstorming, Question polishing and sharing, and Reflection. Through the intervention of eight lectures for four weeks, the results showed that this pedagogy improved questioning ability both quantitatively and qualitatively. Questioning ability was improved in the four cognitive dimension categories of "apply", "analyze", "evaluate" and

"create". In particular, the significant improvement in questions in the two cognitive dimensions of "evaluate" and "create" confirmed the effectiveness of this pedagogy in improving questioning ability that represent innovative thinking skills. In addition, this pedagogy improved students' attitudes toward questions, their idea generation ability (fluency, flexibility, and originality) and target language ability (vocabulary and grammar).

The foreign language pedagogy centered on student observation activities promoted students' observation ability through three links: Warm-up based on picture observation, Discussion based on video observation, Discussion and sharing for reflection. Through eight lectures lasting four weeks, the results showed that this pedagogy improved observation ability both quantitatively and qualitatively. The amount of information gained by the students in the three cognitive domains of "understand" and "create" was intentionally increased. In particular, the the significant improvement in the cognitive domains of "create" demonstrated the effectiveness of this pedagogy in improving observation ability, which represent innovative thinking skills. In addition, this pedagogy improved the students' attitudes towards observation, their idea generation skills (fluency, flexibility, and originality) and target language ability (vocabulary and reading comprehension).

In addition, this study investigated the influencing factors of foreign language teachers' acceptance of pedagogies that improve questioning and observation abilities which represent innovative thinking skills, and constructed a model of pedagogical acceptability. Based on Grounded theory, a qualitative analysis of the content of semi-structured interviews conducted with foreign language teachers on the acceptance of pedagogies was conducted. The results showed that the Central

Phenomenon (Core Category) is the acceptance of the pedagogies. Around the Central Phenomenon, the influencing factors of the acceptance of the pedagogies were determined: Causal Condition (the inapplicability of the existing pedagogies) is the reason why the Central Phenomenon occurred. Intervention conditions (teachers' knowledge and abilities, students' knowledge and abilities, teaching progress) played a key determining role; Action-interaction strategy (improvement and promotion of pedagogy) played a regulating role.

The two foreign language pedagogies helped students improve their innovative thinking skills, language ability, and idea-generation ability; The pedagogies will become useful reference for foreign language teaching reform by adding two new pedagogies based on improving innovative thinking education. In addition, it will provide a theoretical reference for the formulation of relevant policies for accepting and introducing new pedagogies in teaching reform.

**Keywords**: Innovative thinking skills, Foreign language education, Questioning, Observing, Pedagogy, Acceptability