

Effectiveness of Home Project Employing Problem-solving with Practical Reasoning: Focusing on the use of learning strategies

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Abstract

The purpose of this study was to investigate effective teaching methods for problem-solving in home economics of senior high school. For this purpose, home project employing problem-solving with practical reasoning was conducted, and the effectiveness of learning and incidence of employments of learning strategies was evaluated afterward. Our subjects were 220 students in a senior high school. Relationships among learning motives, mastery levels of tasks and learning strategy in the problem-solving were analyzed by the multiple regression analysis. The results were summarized as follows;

- (1) Before the home project, the cognitive strategies were mainly used, and they were improved among approximately 45% of students by the home project employing problem-solving with practical reasoning. This project improved the metacognitive strategies and the external resource strategies which were used among only 25-35% of students before the home project.
- (2) Multiple regression analysis suggested that the mastery level of task was elevated by increasing the cognitive motivation of attainment value which was elevated by ascending the metacognitive strategies. Learning strategy was increased by raising incidence of imitating strategies from another students and the mastery level of practice.

Key words; home project, practical reasoning, problem-solving, learning strategy