

# Developing a Problem-Solving Cooking Class Program to Encourage Behaviors Reducing Household Food Waste

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## Abstract

In this study, we developed and examined a “problem-solving cooking class program designed to encourage behavior that would help reduce household food waste” with an aim for high school students to contribute toward reducing food waste at home. The program was structured by creating a matrix of classification of various concepts in consumer education and a model associated with factors of environment-conscious behavior based on social psychology, to carefully select the learning contents. A questionnaire survey was conducted among the attendees to investigate the effects of the class. T-test revealed that scores for each determinant and the scale for intention to reduce household food waste increased, quantitatively demonstrating the effect of the class. The covariance structure analysis revealed that the classes that include the jigsaw method in this program had a positive impact on the recognition of the risk of food waste, the effectiveness of strategies, and moral responsibility. Additionally, they influenced the evaluation of costs and benefits, and social norms. The analysis also revealed that the classes that incorporate problem-solving cooking lessons had a positive impact on the evaluation of feasibility. It was demonstrated that this program could become the first step in consumer citizenship education in high-school home economics class.

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*Key words*; food wastage, education for consumer citizenship , home economics, cooking practice , environmental education