The Effect of Project-Based Learning (PBL) on Nutrition Students’ Learning Competencies and Career Aspirations in South Korea

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**Background:** Project-based learning (PBL) is defined as a student-centered pedagogy that involves solving authentic problems so that students acquire a deeper knowledge through active exploration of real-world challenges and problems. PBL has been suggested as experiential learning strategies to enhance undergraduate nutrition education in which there is a high demand for dietetic industries.

**Objective:** The purpose of the study was to examine the effectiveness of PBL on college students’ competencies (learning motivation and problem-solving ability) and career aspirations in South Korea.

**Study Design, Setting, Participants:** This quasi-experimental one-group pre- and post-test design was used to compare the mean scores on students’ learning outcomes. A total of 30 junior college students majoring in food and nutrition participated. An eight-week PBL approach for a Food Projection Management course was designed, and the course was comprised of an introduction of the project, group presentations, food production project implementation, and project evaluation.

**Measurable Outcome/Analysis:** Research questionnaires consist of learning motivation, problem-solving ability, and career aspiration in food and nutrition industries. After the data screening process, a total of 26 responses were used for data analysis. Data were analyzed using descriptive statistics and a paired t-test used to compare pre-post mean scores of competencies. Results were considered significant at p<0.01.

**Results:** The average age of the participants was 22.0±0.5 (years), and the majority of participants were female (88%). The results showed post-test mean scores of learning motivation and problem-solving ability competencies were higher than pre-test scores (p value < 0.001). In terms of career aspirations, there was statistically significant improvement in the post-tests (pre-test 3.75±0.16, post-test 3.88±0.26).

**Conclusion:** These results suggest that PBL could be more effective for students in improving their academic achievement and food and nutrition career aspirations. It is important for nutrition and dietetic instructors to apply PBL on dietetic and nutrition courses. Future studies need to focus on validating the effectiveness of PBL under different student populations and conditions.

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The Relationships Between the Perception of Mood, Self-regulation, and Eating Behavior in College Students

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**Background:** Positive and negative mood patterns may affect eating behaviors in college students. When experiencing negative mood patterns, students may be less able to self-regulate, thus causing poor eating habits such as overeating and eating in the absence of hunger. However, currently, no studies have assessed the association of mood, self-regulation and eating behaviors in college students.

**Objective:** To examine the relationships between perceived mood, self-regulation, and eating behaviors in college students.

**Study Design, Setting, Participants:** Undergraduate females (n=214) completed validated questionnaires assessing mood, self-regulation, and eating behaviors. Perceived mood was collected over 8 days and averaged for an overall perception score. Students were predominantly Hispanic (75%) and Juniors (51%).

**Measurable Outcome/Analysis:** Descriptive statistics, correlations, and one-way ANOVAs were analyzed using SPSS V28.0. Results were considered significant at p<0.05.

**Results:** Students with perceived pleasant moods (vs. unpleasant moods) were more likely to have increased self-regulation skills (r=0.193, p=0.025), and intuitive eating behaviors (r=0.269, p=0.002). Inversely, those with increased unpleasant moods were more apt to experience emotional (r=0.273, p=0.001), external (r=0.189, p=0.029), and uncontrolled (r=0.308, p=0.001) eating behaviors. Considering between-group differences with varying levels of self-regulation, the perception of pleasant moods were significantly increased among those with moderate and high self-regulation, compared to those with low self-regulation (F=4.683, p=0.011). The between-group differences were also considered among participants with low, moderate and high eating behaviors. High emotional eaters perceived their days as significantly more unpleasant, compared to low and moderate emotional eaters (F=8.550, p<0.001). Moderate and high external eaters had increased perception of unpleasantness, compared to low external eaters (F=4.087, p=0.019). High uncontrolled eaters perceived their days as significantly more unpleasant than low uncontrolled eaters (F=5.548, p=0.005).

**Conclusion:** Perception of mood (pleasant vs. unpleasant) may affect maladaptive eating behaviors and self-regulation. Future research on self-regulatory components such as emotion regulation are needed to consider mood and its influence on eating behaviors.

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