

Impact of Student-Created Lectures on Learning, Intrinsic Motivation and Sense of Belonging of Students of the Food Science and Technology Related Undergraduate/Graduate Courses at UW-Stout

Pranabendu Mitra

Department of Kinesiology, Health, Food and Nutritional Sciences, University of Wisconsin-Stout, Menomonie, WI, 54751

Abstract

This study investigated the effect of student-created lectures on learning, intrinsic motivation and sense of belonging of students enrolled in food processing/engineering courses. In this study, control groups delivered lectures using a teacher-created lecture and treatment groups delivered lectures with their own-created lecture. Outcomes were measured using validated surveys assessing sense of belonging and intrinsic motivation on a 7-point Likert scale, along with course-based learning achievement assessments. The results of this study indicated that the treatment group achieved higher learning scores (47.33 vs. 45.60 out of 50) and reported a greater sense of belonging (6.34 vs. 6.16) and intrinsic motivation (5.64 vs. 5.45) than the control group, indicating modest but consistent benefits of student-centered instruction. Overall, the results suggest that student-created instructional activities positively support both academic performance and students' affective learning experiences and this study contributes to equity-minded SoTL by providing empirical evidence in STEM-related disciplines.