



Enhancing Student Learning Through a Team-Based Active Learning Strategy

What is this Research About?

Active learning in a student-centered learning environment can enhance students' critical thinking and communication skills. Health professions like dietetics are interdisciplinary, so practicing group and team-based activities can facilitate performance in a health-care team. Active learning has been found to be an effective teaching strategy in nutrition and dietetics, but little is known about the use of team-based learning in this discipline. In this study, researchers compared student performance and satisfaction before and after implementing a team-based active learning intervention in an undergraduate nutrition course.

What did the Researchers Do?

In this study, an undergraduate nutrition course was redesigned via a semester-long course redesign program. The purpose of the redesign was to create a student-centered, active learning environment. Before the course redesign, the course consisted of traditional lectures and learning was assessed using three larger summative multiple-choice tests. After the redesign, the course included a combination of lectures and 11 in-class group-based active learning activities, with scores from 10 of the 11 activities being included in the course grade. The re-designed course also incorporated more frequent summative assessments to assess critical thinking. Students provided peer evaluation and feedback on their group's performance to the course administrative team after each activity. Researchers looked at student exam scores and evaluations pre- and post-implementation of the active learning strategy to assess student performance and satisfaction, respectively.

What did the Researchers Find?

Overall, the percentage of correct answers on summative evaluations increased from 73% pre-intervention to 76% post-intervention. Students performed better in three content domains (dietary assessment, Dietary Guidelines for Americans, and the exchange system), but performed more poorly in one domain (meal-planning). After the redesign, students also provided more written positive feedback and had fewer suggestions for improving the course, with one exception. Students expressed that there were too many opportunities for peer review in the redesigned course, and that it became repetitive, and suggested that there could be fewer.

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➔ How to Implement this Research in Your Classroom

Researchers found that active learning, group-based activities improved content knowledge overall, as well as in some specific domains. Small, nonsignificant changes in student evaluation also suggest that this is an acceptable option for student learning. Nutrition and dietetics students, as well as students from other disciplines, need to gain skills in communication, collaboration, and critical thinking to be successful in their field. Instructors could consider incorporating more active, group-based learning activities into their courses to facilitate development of these skills. Instructors should be strategic in implementing the active learning strategy, as using this approach may mean a loss of time to cover all course content covered in a traditional lecture-based format.

➔ Citation

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➔ Keywords

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