Supporting Intensive Collaboration

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The COVID-19 pandemic worsened feelings of isolation for students in the Health Informatics Program and hindered their interactions in the program's online classes. In 2020, many students were required to complete their coursework online, which resulted in a loss of peer-to-peer interactions that are typically present in in-person classrooms. Students achieved their educational goals but lamented the lack of student interaction. Faculty who had to teach online courses found that preparing video lectures was time-consuming, and interactions with students were often one-to-one, similar to what one would expect in correspondence courses.

Flipping the Classroom

The teaching approach which can improve student interaction, which I tested in an undergraduate senior-level Health Informatics course, combines various methods to increase student interaction and satisfaction in courses. The method involves a flipped classroom approach where students listen to lectures at home and complete assignments in class; team-based learning (TBL) in all assignments; and small group activities of three to four persons. The "learn one, do one, teach one" pedagogy was also adopted.

Preparing Students to Lead

In traditional lecture classes, the instructor speaks, and students mostly listen. Instead, classes can be broken into small groups of students who speak to one another, immediately improving the interaction between students. To ensure that accurate information is exchanged, the instructor needs to train at least one member of the group ahead of time. In the first session of the class, two or more students were selected to be the peer instructor for different weeks of class. These students were taught one on one by the instructor prior to the scheduled class time. They also produced a video on how to answer one of the assignments for the week.

Engaging in a Feedback Loop

The course syllabus was modified to explain the new pedagogy and grading system. At the end of the semester, a survey was given to the students to evaluate their experience with the course. The survey measured the extent of interaction in a class by asking the students to report the percentage of time they were talking to the instructor or other students. Grades in exams and a non-collaborative final project were used to assess the students' knowledge. The students reported more interaction and received better grades in the course. The results from the course evaluations are comparable to those seen in the literature concerning students' grades and satisfaction with flipped or team-based courses.

The students' positive reactions could be attributed to various factors, including extrinsic factors such as grades, evaluations, and fear of peers' judgment, and intrinsic factors such as autonomy, relatedness, self-set pace, and competence. The extensive interaction reported by the students showed that it is

possible for an instructor to direct a class (through one-on-one teaching of peer instructors) without physically participating in each interaction. The strategy I used and the results of observing and surveying my classes are available in my paper "*Intensely Interactive Online Course in Health Informatics: A Case Study*", published in the Journal of Health Administration Education; Vol. 39, Iss. 2, (Winter 2023): 303-310.