Flipping the nursing classroom without flipping out the students

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Background: Flipping the class has been touted as a method of increasing student participation and improving learning outcomes. According to Bergmann and Sams (2012), the basic premise of this instructional technique is to have students complete at home that which is traditionally done in class, and to complete in class that which is traditionally done as homework. Nursing professors are trying their hand at this educational technique with success.

Research Question: Will flipping the classroom positively affect student learning, as evidenced by an increase in test scores?

Methodology: A group of baccalaureate nursing students were introduced to the “flipped classroom” at the start of their junior year. As part of the students’ classroom orientation, a brief explanation of “flipping the classroom” was given. In keeping with the philosophy of “flipping the classroom”, narrated Power Points were made available before each class. Students were instructed to watch and listen to the PowerPoint presentations and to be ready to participate in case studies that would enhance their understanding of the material covered in the presentations. Classroom time was used to incorporate additional case studies. Students were divided into groups and each group given a different case study relevant to the material in the narrated presentations. Each case study was accompanied by a series of questions edited to promote increasingly complex levels of student understanding. Using a rotating group leader, students were assigned questions and groups presented to the entire class.

Results: When comparing student test scores before (n= 46) and after flipping the classroom (n=169), we found a statistically significant average increase of 8.04 points after the change in instruction (t -6.076, p < .0001). Results of the one way ANOVA to further test the hypothesis that flipping the classroom would improve test scores showed the omnibus F test was statistically significant F (15.852, p = < .0001). Post hoc tests revealed that, as hypothesized, there was a statistically significant difference in the mean test scores of students in the traditional classroom (M= 69.89) and the first semester of the flipped classroom (M= 76.58) and the second semester of the flipped classroom (80.86). Test blueprint was held constant throughout this process.

Conclusions: Our hypothesis that flipping the classroom will improve test scores was supported by the data, as outlined above. Test scores progressively improved with each semester of the flipped classroom.

Recommendations: Despite the increase in test scores, student satisfaction as noted in anonymous course evaluations declined the first semester of implementation of this strategy. This is consistent with Berrett (2012) and Missildine, Fountain, Summers & Gosselin (2013) who found similar correlation with student satisfaction and the flipped classroom. Instructors should be mindful when initiating this new pedagogy and prepare themselves and the students. Students in subsequent semesters appear significantly more satisfied with this teaching method as compared with first semester students, with minimal negative comments in anonymous course evaluations. Further analysis over several semesters is need to identify trends, including possible effect on student attrition and NCLEX pass rates.

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