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Lecture, Online, Flipped, and Blended: A Mixed Methods Study on Sonography Student Outcomes & Perceptions

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Poster presented at the 2022 Spotlight on Scholarship at the University of Nebraska Medical Center, Omaha, Nebraska.

Abstract

Course delivery methods in higher education have undergone tremendous changes over the past twenty-four months due to the COVID-19 pandemic. Educators and learners, with varying experience levels, had to quickly transition to a remote learning method for course delivery and education. As institutions phase back into a return to campus, an opportunity exists for educators to pause and reflect on course delivery methods that may better meet the needs of their learners. While the effectiveness of teaching methods has been researched extensively in higher education, little research has been conducted specific to sonography education in evaluating the effectiveness and perceptions of sonography students related to the course delivery methods of traditional lecture, asynchronous online, flipped learning, and blended learning. The purpose of this retrospective mixed methods study was to examine the effect of the course delivery method in sonography education. A convergent mixed methods design was used in which quantitative and qualitative data were collected in parallel, analyzed separately, and then merged. In this study, end-of-semester course surveys and course outcomes (unit exam grades) were used to test the constructivist theory that a student-centered course delivery mode positively influences sonography students' perceptions of the class and the course outcomes in a genitourinary course. Open-ended questions included in the end-of-semester survey further explored students' perceptions of the course based on the method of delivery. The following research questions were explored in this study: Research Question 1: How does the method of course delivery impact students' unit exam grades in a genitourinary ultrasound course? Research Question 2: How does the method of course delivery influence students' overall satisfaction of the course based on end-of-semester surveys? Research Question 3: How do students' comments on the end-of-semester surveys help to explain any quantitative differences in the course outcomes or closed-ended survey data? The results, discussion & implications for practice of this study are currently being reviewed and will be included in the final poster presentation.

The project featured in this abstract has been subsequently published:

Custer, T., Wampler, K., Lambing, L., Sayles, H., & Michael, K. (2022). Lecture, Online, Flipped, and Blended: A Mixed-Methods Study on Ultrasound Student Outcomes and Perceptions. *Journal of Diagnostic Medical Sonography*, 38(6), 487-496. <https://doi.org/10.1177/87564793221106781>

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