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Reflections on SoTL in a Graduate Health Professions Course Sequence

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Abstract

Facilitating learning in graduate programs that prepare students to enter a health profession presents unique challenges since students in these programs have completed undergraduate degrees, but are entering graduate studies in a new field. This paper describes the SoTL process used by two faculty members to facilitate independent learning and critical thinking in a course sequence in a graduate physical therapy program. Design, implementation, and outcomes of modifications to the course sequence are described. The paper includes our reflections on the SoTL process and lessons learned about strategies for facilitating learning in this student population.

Keywords

SoTL, Graduate programs, Health professions

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Introduction

Graduate programs that prepare students to enter a health care profession are in a kind of "no man's land" between college and traditional graduate school education. The students have completed college degrees, but are entering a new field of study rather than pursuing advanced study in their area of undergraduate study. These programs present a unique challenge for promoting independent learning and critical thinking. It is in this context that we sought to enhance learning processes and outcomes using SoTL in a course sequence in a Doctor of Physical Therapy program.

Background

The University of Alabama at Birmingham (UAB) offers a 3 year Doctor of Physical Therapy (DPT) program. The majority of students enrolled in this graduate program are ages 23-27 years and are members of Generation Y or the Millennial Generation. Members of this generation prefer to be actively engaged in learning in a structured environment with frequent feedback. Millennium generation students are visual learners who use technology to scan and browse for information on the Internet rather than relying on textbooks and other written sources of information. As a consequence, their ability to assess and critique information often requires further development. (Skene, 2007) They tend to have short attention spans and like for learning to be entertaining and fun. (Coates, 2007)

Pathology and Pharmacology for Movement Disorders I and II are foundational science courses in the first year of the program. Traditionally, the course content had been presented in lecture format using PowerPoint slides, which were typically provided to students before the class session.

The Problem

Faculty observation revealed that students were not fully engaged during class, lacked in-depth understanding of pathophysiologic principles, and struggled with critical thinking skills needed for the application of the material. The lecture format and PowerPoint handouts appeared to foster student dependence on superficial learning strategies such as memorization of bulleted information with subsequent student difficulty in application of material in subsequent courses. Based on this evidence, faculty members explored how best to facilitate deeper and more active student learning by modifying the course structure and teaching strategies.

Course Design

We received a $4525 grant from the UAB Scholarship of Teaching Grant program to restructure the course sequence and assess learning outcomes**.** The course structure was modified to include a commercially prepared online component. Students were held accountable for class preparation through quizzes given at the beginning of class or the submission of written responses to questions. In-class time was devoted to case study analysis, in-depth discussion of concepts, concept mapping, and interaction with patients and healthcare professionals. The teaching methods utilized in this course are consistent with constructivist learning theory, which holds that knowledge is actively constructed by learners rather than passively transmitted by teachers. (Poplin,1988). Learning in context, whole-part-whole learning, student collaboration, and student accountability are emphasized. (Graham, 1996)

Outcomes

Student performance in the course sequence improved, as evidenced by a 50% increase in "A"s compared to the previous class. Student engagement, assessed by Classroom Survey of Student Engagement (CLASSE) (Smallwood, 2009), indicated frequent student participation, integration of information, and collaboration with classmates. However, student course evaluations were less favorable, with comments indicating that the students "had to teach themselves," "the assignments were too lengthy," and "the textbook was dense and difficult to read." Most students preferred the online component rather than the textbook and commented positively on the use of panels of patients and healthcare professionals.

Discussion

Improvement in course grades most likely reflected enhanced student preparation for class, higher-level discussions in class, and the emphasis on application of the material in authentic contexts. Student preference for the online component is consistent with the "scan and browse" tendencies of this generation of learners since the online component was

less detailed, visually oriented, and interactive. The less favorable course evaluations can be explained in part by the fact that the other courses the students take use more traditional lecture methods and this course entailed a higher workload outside of class.

Reflections on Teaching Strategies

Based on this experience, we have made minor modifications in our approach in subsequent course offerings. These changes resulted in improved course evaluations and continued improvements in learning outcomes. We have found the following strategies to facilitate student learning in this type of educational environment:

- Clarify student expectations through a detailed course orientation and targeted session objectives. This strategy helps to provide structure to the learning environment and decrease student anxiety.
- Integrate technology, but set boundaries regarding appropriate use. For example, allowing students to find Internet resources to help explain difficult concepts and sharing those resources with classmates provides an opportunity to use technology in a constructive way.
- Hold students accountable for class preparation through use of assignments and quizzes. Students may not react favorably to this approach, but most will recognize the benefits in improved course performance.
- Provide structured opportunities for students to develop critical thinking skills. The strategy of challenging students with difficult cases or questions, then facilitating a step-by-step approach to analyzing the case is a helpful way to promote critical thinking.
- Emphasize application of course material in real contexts through case studies and interactions with patients/clients. This approach helps to engage students and enhance confidence for future clinical experiences.
- Use a variety of active learning strategies to engage students during class sessions. Since students have a variety of learning styles and may have short attention spans, using a variety of approaches is key to student engagement.

Summary

Our experience using SoTL to implement and assess modifications in a graduate course sequence in a health professions program was a treacherous journey at times, but the end result was positive. The benefits of this experience included improved student learning outcomes and enhanced faculty productivity in scholarly endeavors.

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