

Center for Teaching Excellence: Teaching Innovation Grants for Flipped Course Development

SCCP 750: Self Care and Complementary Medicines Final Report

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Background

Self-Care and Complementary Medicines (SCCP750) is a required course for second year pharmacy students at the South Carolina College of Pharmacy (SCCP). Throughout the course students learn to assess, diagnose, and triage medical problems with over the counter therapies and provide appropriate treatment recommendations. In addition students learn to make appropriate recommendations about the use of complementary medicines, including herbal supplements. The SCCP uses distance education technology to provide the required curriculum. Classes originate on one campus and are projected to the distant campus using synchronous video conferencing technology. Instructors are able to teach 110 students on the University of South Carolina (USC) campus and 80 students on the Medical University of South Carolina (MUSC) campus. Lectures could originate from either campus. Most SCCP courses are evenly split between the campuses in regards to originating campus – about half the lectures originate from MUSC and the other half from USC. Despite this even split, maintaining student engagement on the distance campus has been a challenge for instructors on both campuses of the SCCP.

Traditionally, SCCP750 was taught by an instructor giving a lecture on the topic for that class period, like most of the courses at the SCCP. Three years ago, the course coordinators for SCCP750 struggled with student engagement in the material, particularly on the distant campus. In an effort to increase student engagement, SCCP750 was switched to a modified-Team Based Learning (TBL) model. TBL is a pedagogy that combines individual pre-class learning with small group in-class active learning. It is designed to promote critical thinking, communication, and group collaboration. For the modified-TBL format, students in SCCP750 were asked to review a chapter or chapters in their required textbook outside of class. In class time was spent on individual and team quizzes, mini-lectures, student video presentations and application exercises. The modified-TBL format in SCCP750 increased student engagement compared to traditional lectures; however it still was not at the level desired by the course coordinators.

Project Goals

1. The primary goal for the grant was to completely flip SCCP750 by using a true-TBL format and removing all lectures and presentations from the classroom.
2. The secondary goal was to improve the information gathering process outside the classroom. Currently it involves students reading chapter(s) from a required textbook. The course coordinators wanted to utilize educational technology to actively engage students in this material outside the classroom to better prepare them for the in-class activities. The plan was to use the resources provided by this grant to develop a library of electronic media that will be provided to students enrolled in the course during the fall 2016 semester.
3. Course Coordinators planned to evaluate the level of student engagement and overall satisfaction with aspects of the flipped classroom. Results will be presented and published at a national meeting.

Project Outcomes

Total Enrollment

Fall 2015 – 108 (USC) and 87 (MUSC)

Fall 2016 – 107 (USC) and 88 (MUSC)

1. SCCP750 was completely flipped in the fall 2015 semester. Students were required to read a chapter or chapter(s) before each class. At the beginning of each class period, students took a 10-item individual readiness assurance test (IRAT) then the students took the same assessment in their pre-assigned, permanent teams. This is the team readiness assurance test (TRAT). The teams completed the TRAT using the immediate feedback assessment technique (IF-AT®) forms. After this activity, students entered the question or questions they would like the instructor to review into TopHat®, a cloud based audience participation platform. The instructor would review the questions the students had entered. Next, the students worked in their teams on a series of application exercises based on real-life scenarios. Instructors facilitated the discussion and provided guidance to lead the class to the correct answers. The last part of the class period was called the show-case. During the show-case, one or more teams were called on to analyze a situation in light of the information gathered outside the classroom and the skills practiced during the class. A variety of activities were employed during the show-case, including roll-playing and a debate over an area of controversy. This format was very successful in increasing student engagement with the material and instructor, particularly on the distance campus. The format was continued and used again in the fall 2016 semester.
2. Due to the results of the reading skills survey, the course coordinators decided to continue using the text book for the fall 2016 semester. However a few videos were recorded and made available to the students enrolled in the fall 2016 semester to help them clarify confusing or difficult material within the text book; something we learned during the fall 2015 semester.
3. The course coordinators held an optional reaching skills coaching session during the first week of classes. A couple members of the Student Success Center at USC ran the session for us. Students completed a survey at the beginning of the semester and again at the end. The survey assessed their current reading skills and confidence in their current reading skills. The results are below. Overall course comments from students are also included below.

Results from Reading Confidence/Skills Survey

Survey (#1 was at beginning of semester; #2 was at the end)	SA or A		D or SD	
	1 (N=111)	2 (N=142)	1 (N=111)	2 (N=142)
I enjoy reading.	64.86%	73.05%	16.22%	11.35%
I am able to read quickly.	49.55%	55.32%	34.23%	29.79%
I am confident in my ability to retain the information I just read.	51.35%	71.63%	25.23%	9.22%
I feel panicky when taking an important test/quiz on the information I have read.	68.47%	48.94%	12.61%	27.66%
I have trouble understanding what the main point is when I am reading.	21.62%	14.89%	61.26%	74.47%
When reading, I get lost in the details and miss the important information.	41.44%	29.08%	40.54%	58.87%
To help learn the materials I read, I relate it to my own general knowledge.	77.48%	80.14%	6.31%	5.67%
I translate what I am reading into my own words.	63.96%	70.21%	18.02%	17.02%
I stop periodically while reading and review what I just read.	64.86%	65.96%	20.72%	19.15%
I reflect on what I have just read by differentiating between the information I already knew and the information that is new to me.	48.65%	58.87%	30.63%	25.53%
To check my understanding of the material I read, I come up with potential test questions and try to answer them.	32.43%	38.30%	54.05%	46.81%
I am able to summarize what I just read.	75.68%	90.07%	9.01%	2.84%
I take notes when I read information.	71.17%	63.12%	18.02%	25.53%
I am confident in my note taking abilities while reading.	61.26%	68.79%	18.92%	4.26%

I use special note taking techniques, such as headings, highlighting, underlining, color-coding, while reading.	72.97%	80.14%	14.41%	9.22%
I review the notes I take on my reading before the next class or exam.	73.87%	72.34%	9.91%	4.96%

Course Comments from Students

I really like the way the class is set up. I am learning a lot and like that we just don't have powerpoint lectures. It's a great interactive way to make the information interesting.

I thoroughly, along with many others I have talked to, love the flow and set up of this class. It is very easy to learn the material and it sticks pretty well! Having the TRATs help us a lot because we get to talk to each other and if one of us forgot a point, or have a good way of remembering something, we can share it with each other! I have had conversations about this with my peers and we all agree! Thank you for making this 8AM class enjoyable and informative!

Before this course began, I was somewhat nervous about it being a teamwork-based course because I've had many bad experiences with group work. However, I couldn't have asked for a better group of people to work with in this class; every member of my group has been a pleasure to work with. Everyone contributes to the team, everyone is pleasant, and we're able to laugh and make jokes as well which makes it an overall great experience.

I enjoy the class. School is hard, but this class is very helpful in the real world/work. Thank you

I am grateful to be in this great team. Everyone is willing to help each other, and the environment has been pleasant. There were times that we would have different answers for a question, but we all gave our thoughts and ultimately decided on the answer. Whether the result it was, we were all fine with it.

This course is awesome, I am learning so many new things, but I prefer to make it 1 quiz per week. Thanks a lot!

You guys do a great job with teaching this subject. The questions are fair while the appeal process is a nice touch to the course.

Great team. Happy with the way we work together and what we each contribute. This group style of learning has pleasantly surprised me.

Conclusions/Future Directions

Overall, the course coordinators are pleased with the level of student engagement with this flipped course design. The faculty at the college voted in May of 2016 to move the course into the spring semester of the first year; therefore we will be teaching the course again during the Spring 2017 semester to first year pharmacy students. Minor changes to the course will be made and are described below:

- The college of pharmacy's at MUSC and USC are in the process of de-merging. The current first year class is campus specific; therefore the spring 2017 offering will only be held on the USC campus.
- IRATs will be moved online. Students will complete them in Blackboard during the first 15 minutes of class. TRATs will be the same.
- The show-case will be eliminated and replaced with a game using the Kahoot™ platform.
- Student teams will have a semester-long project. The goal of the project is for them to create a way to improve self-care consultations within the community. They will be required to use a specific self-care topic within their presentation.