Co-teaching a Grand Challenge Course: Using Digital Media and Collaborative Teaching Strategies for Effective Online Learning and Transliteracy Skills

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INTRODUCTION

The Grand Challenge program at the University of Rhode Island (URI) is a pilot program designed for first year undergraduate students new to the University. Grand Challenge courses are general education courses that address global issues relevant to a certain discipline. During the fall 2011 semester, the Curriculum Materials Library (CML) hosted a three credit Grand Challenge Course, Education and Social Justice, which covered topics such as race, poverty, and the dynamics of marginalized groups, while also addressing foundational information literacy skills. This new, first time course involved a unique and collaborative partnership between a faculty member in the School of Education (SOE), a faculty librarian in the CML, and a Graduate Assistant in the Graduate School of Library and Information Studies (GSLIS). The pedagogical model described within this paper is the result of years of collaboration between the librarian and faculty in the SOE when designing effective information literacy instruction grounded on pedagogical inquiry and transformative reflection. The goal of this approach was to meaningfully engage students in knowledge building, problem solving, and creating "their own understandings and identities" (Elmborg, 2006, p. 198).

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FACULTY AND LIBRARIAN COLLABORATION

Creating the Course

The instructors took part in summer planning where they designed the course using the Backward Design model of instruction. This model is organized around a big idea and essential questions that guide the development of the course (Wiggins & McTighe, 2005). The big idea that the course focused on was "How do we address social justice issues in education?" An example of an essential question that guided student work was "How do race, gender, poverty, disability, sexual orientation and class impact a student's educational experience?"

Teaching the Course

The course's main objectives were to have students engage in the examination of human differences while using efficient search strategies to critically evaluate sources of information to support oral and written arguments in a persuasive format.

Teaching Pedagogy

The course incorporated student-led service learning projects, reflection blogs, two papers, an online discussion board, and a comprehensive mind map to address the overarching big idea. Within a flexible blended learning model, the co-teachers incorporated several theoretical frameworks. Vygotsky's Zone of Proximal Development (ZPD) was utilized in developing a plan to implement the course assignments. The ZPD model assists the learner at their independent level of learning with structured supports that allow them to acquire more complex skills. This pedagogical model allowed for each student to receive assistance in the areas in which he or she needed it most. Additionally, the students were provided scaffolded support periodically during the course so that all students had the opportunity to be successful in completing larger course assignments. Other research-based learning theories that were incorporated into the course were the Seven Principles for Good Practice in Undergraduate Education and the Digital Information Fluency Model.

Teaching Content

To address topics of social justice within an education context, the content of the course was organized around three themes: critical race theory, disability studies, and queer theory. By infusing these topics into each assignment, online discussions, and information literacy lessons, students were encouraged to draw upon their own experiences, as well as to learn how to apply the published work of others to their course assignments.

The course was delivered in a blended learning environment which utilized the Sakai open source learning management system. According to Garrison and Kanuka (2004), blended learning is defined as "the thoughtful integration of classroom face-to-face learning experiences with online learning experiences" (p. 96). This blended format allowed students to extend classroom knowledge and in-class discussions into an online knowledge community and allowed for broader, more detailed group discussions throughout the week that wouldn't have been possible in a traditional face-to-face class (see Figure 1).

Figure 1: Blended Learning Model (adapted from Networked Learning Ecology North America)



Student Support for Learning

Student support for learning was one of the key components for ensuring student success in the course. Building off the ZPD model and the work of Lee, Srinivasan, Trail, Lewis, and Lopez (2011), student support was offered in three major areas: instructional support, technical support and peer

support. According to Lee et al., "support for student learning is a key element in optimizing student learning experiences in any learning environment" and has been closely linked to "student motivation and learning" (p. 158).

Instructional support for student learning was provided at various points throughout the course. First, students were offered the opportunity to meet with all course instructors outside of class for help or assignment clarification. In addition, students were offered the option of meeting with the Education Librarian during virtual office hours. The instructors served as moderators during online discussions, which ensured that students' interactions were appropriately aligned to course topics. For example, the instructors modeled how to cite textual information in response to students' weekly discussion posts. This modeling allowed students to have multiple practice opportunities for citing sources prior to being formally assessed.

Students were also offered instructional support through one-on-one tutoring sessions with the graduate LIS student. Students were able to schedule individualized sessions that focused on each student's specific area of difficulty. Through this type of support the graduate student was able to model appropriate writing and information literacy skills. The tutoring sessions primarily focused on writing instruction, research strategies and citation style, and coincided with final due dates for the research papers and the annotated bibliographies. For the first paper, tutoring was a mandatory requirement for students wishing to re-write the paper in order to improve their grade. For the second paper, tutoring became optional. This level of support allowed instructors to differentiate instruction and meet students at their point of need.

Technical support was offered to enhance students' understanding of various instructional technologies that were introduced in class. Students were able to come into the CML any time to work with software such as Inspiration 9.0 or to ask for help with the technology. In addition, one of the course instructors offered a voluntary Prezi workshop for students who were interested in learning how to use this web-based software for the final presentation. Given this level of technical support, most students opted to use technology that was new to them for creating the final mind map presentation.

Students were offered peer support during the required peer review sessions that took place prior to the final due date for each paper. During the peer review sessions, students were able to gain constructive feedback from other students. For the first peer review session, students were asked to meet with each other in the library, read their classmate's paper, and then conduct an informal verbal review of their partner's writing. For the second peer review session, the instructor created a peer review discussion forum in Sakai and assigned group areas where the students could conduct their peer reviews online.

Information Literacy Instruction

The ACRL information literacy competency standards that were addressed during the course were Standard

Two, Standard Three, and Standard Five which focused on students accessing and evaluating information efficiently and acknowledging social, economic, and legal issues related to information. The instruction was designed to build a strong foundation of information literacy skills such as designing effective search strategies, using a variety of search methods, refining search strategies, and acknowledging information sources (performance indicators 2.2, 2.3, 2.4, and 5.3). The goal was to require students to evaluate sources of information and synthesize ideas in order to create new products (Standard Three, performance indicators 3.2 and 3.3).

FACULTY/LIBRARIAN/GRADUATE STUDENT COLLABORATION

Based on a survey of the literature to date, the question remains whether or not the preparation that LIS graduate students are receiving in traditional MLIS programs is adequately preparing them for academic librarian positions. Mullins (2012) conducted a focus group survey among the deans, directors and university librarians at nine Association of Research Libraries (ARL) member institutions around the nation, to determine if they were able to hire new librarians who were ready for the changing nature of the positions they were seeking to fill. The results showed the skills that were generally lacking among new LIS graduates were collaboration and people skills which are needed to be a liaison or to collaborate with faculty within a department (p. 130).

This course offered the opportunity for the LIS student to gain experience working first-hand with teaching faculty, as well as with a librarian, and to learn valuable skills such as instructional design, how to successfully co-teach a course, and how to create student supports for learning. These skills enhance the graduate student's ability to collaborate and inform her future teaching practices.

The focus group survey also pointed to the importance of new librarians having access to mentoring support from their hiring institutions. In the survey results, 100% of the respondents agreed that mentoring should be a priority. These results highlight the need for library schools to provide mentorship experiences to students, and the importance of modeling practical skills such as scholarly communication and pedagogical approaches to teaching, that are oftentimes overlooked within LIS curriculums.

The course design supported the idea of mentorship on many levels. Through this dynamic experience, the graduate student was able to learn what elements are essential for a successful collaboration between librarians and faculty, how to approach liaison work in a professional environment, and how to promote information literacy instruction and co-teaching opportunities.

STUDENT EVALUATION

Students in the class were evaluated formatively throughout the course through the use of rubrics. For example,

course assignments were assessed based on four main criteria such as depth of reflection, use of text for support, conventions, and documentation using APA citation style. The final results indicated that 89% of the students met the standard in all four areas, with an average course grade of B+.

Table 1

Final course grade distribution

Final Course Grade	А	В	С	D	F
Number of Students	17	0	2	1	0

To assess student information literacy skills, students were asked to create an annotated bibliography that included citations and critical evaluation of the source content. The annotated bibliography for the second paper required that students include annotations for two books, three scholarly articles, one essay or report, one ERIC Digest, and one reputable website. The average grade for the annotated bibliography was B+(87.4%), with the breakdown shown in Table 2.

Table 2

Annotated Bibliography Grades

Annotated Bibliography Grade	A	В	С	D	F
Number of Students	13	4	1	1	1 (not submitted)

The final presentation assessed students' ability to recall important topics throughout the course and integrate them into a formal presentation which also required students to use technology that they had learned throughout the course.

Reflection on Future Collaboration

Given our final reflection on learning outcomes, student behavior and achievement over the course of the semester, future classes could benefit from being offered in a once per week format with a three-hour time block as opposed to meeting twice per week in shorter sessions. A longer time block would allow more time for student discussion, and for interaction with the course readings and each other, as well as more time for in-class reflection. Instructor reflection also suggested the need for additional fine-tuning of teaching and learning activities in order to allow students to achieve course learning outcomes more efficiently.

CONCLUSION

Co-teaching partnerships offer much more than traditional collaboration with faculty because they provide opportunities for collaboration that transforms the role of librarians from information specialists to content experts, literacy educators and mentors. While co-teaching partnerships do not form overnight, reflective pedagogical praxis improves student learning outcomes and empowers faculty and librarians to partner together with a shared vision. Also, by incorporating graduate LIS students into co-teaching partnerships and other collaborative efforts, librarians and faculty members reap the benefit of added in-class assistance with the course, while also preparing graduate students for the demands of academic librarianship. Through the use of sound pedagogical inquiry and reflection based on best practices, and by rethinking ways that we can infuse information literacy instruction into our institutions, librarians, faculty and graduate students can join forces to create a progressive learning environment where students thrive.

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