

Teacher Training and Student Learning Outcomes in Family and Consumer Sciences: A Mentoring and Co-teaching Case Study

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This qualitative study is a mentoring and co-teaching case study of a fashion merchandising course. It seeks to understand the impact of cross-disciplinary co-teaching on student learning and instructor training by utilizing the Collaborative Responsive Educational Mentoring Model (CREMM). The course documented in the study was taught as a cross-disciplinary effort to incorporate career, business, technical, cultural, and theoretical information. It was found that a formalized mentoring program, coupled with a co-teaching experience involving a professor and a graduate student in Family and Consumer Sciences (FACS) can effectively enhance educational learning outcomes. The study exemplifies how educators in FACS may benefit from utilizing CREMM to structure cross-disciplinary courses, manage time, and apply different teaching methods to best serve student needs.

Keywords: case study, mentoring, co-teaching, Family and Consumer Sciences (FACS), fashion merchandising, graduate students, cross-disciplinary teaching, reflections

Introduction

Mentoring and collaborative teaching experiences are vital to the success of future educators (Sachs, Fisher, & Cannon, 2011). Effective mentoring of graduate teaching assistants promotes the competence and development of future professors (Corbett & Paquette, 2011). Combining rigorous standards for education with teaching collaboration between faculty and graduate students can enhance the quality of education of undergraduate and graduate students alike and improve faculty success (Devlin-Scherer & Sardone, 2013). Co-teaching is also a significant step in strengthening graduate student training and the profession in general. Co-teaching experiences are especially beneficial when students in the classroom are exposed to diverse fields of cross-disciplinary knowledge.

In what follows, the authors describe the implementation and outcomes of a mentoring and co-teaching experience in fashion merchandising. The collaboration has revealed that the integration of fashion and cultural studies knowledge with business training and corporate work experiences is especially beneficial for the fashion merchandising field. Many students majoring

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or minoring in fashion merchandising seek to pursue careers in industry, entrepreneurship, and various auxiliary services, which require practical hands-on training along with diverse theoretical knowledge. Therefore, the authors' goal was to evaluate whether co-teaching through a formalized mentoring model that includes academic diversity (cross-disciplinary content) would benefit students and produce a helpful model.

An introductory fashion merchandising course was used for the experiment. The course is routinely taught by a senior faculty member without a teaching assistant and uses lectures as the main method for delivery of instruction. This specific course was chosen because of the broad and diverse knowledge fashion students need in a class that provides an overview of the fashion industry. In addition to increasing learning outcomes for students, the case study suggests that formal mentoring from experienced professors and co-teaching opportunities can better prepare graduate mentees for success in academia.

The self-study of the co-teaching experience of a professor mentoring a graduate student highlights instructor training success. The authors chose to analyze their experience through a case study because their focus was on a particular classroom setting in which students and researchers shared their experiences to produce a set of relevant findings gained through systematic data collection that included participant reflections, student evaluations, and analysis to support their claims (Feldman, 2003). A case study, as defined by Creswell (2009), is a strategy of inquiry that explores in-depth a program, activity, or process of one or more individuals. This case study was bounded by time (August 2012-December 2012) and place (a large university in the southeast). Although this study was conducted within the confines of a fashion merchandising course, it aims to promote formalized mentoring programs and co-teaching opportunities that connect Family and Consumer Sciences (FACS) with business and other related disciplines. Settles, Sherif-Trask, Liprie, Madey, and Koivunen (2002) explain that the "applied nature of family science makes it a fertile ground for illustrating new techniques that encompass both practical and theoretical components in the classroom" (p. 403). Therefore, the authors took advantage of their diverse professional backgrounds and incorporated into the collaboration both practical activities and theoretical information to study if this impacted student learning.

Literature Review

Mentoring and co-teaching are two models of collaboration. Both models can exist in educational settings either individually or in combination. Collaboration increases the likelihood of meeting the needs of students (Ferguson & Wilson, 2011). Traditionally, in higher education, instructors tend to collaborate on research, but teach by themselves (Ferguson & Wilson, 2011). However, in recent years, instructors have explored the benefits of collaborations in higher education teaching as well. This study defines collaboration as a process in which higher

education professionals on different levels of their career track work together towards common educational goals. Both co-teaching and mentoring were utilized in this study.

Co-teaching

Co-teaching is a common method of delivery of instruction and an effective technique to improve student learning in the classroom (Ferguson & Wilson, 2011). Co-teaching or collaborative teaching involves two or more teachers sharing the responsibility for delivering instruction to a group of learners (Chanmugam & Gerlach, 2013; Kariuki, 2013; Scruggs, Mastropieri, & McDuffie, 2007; Villa, Thousand, & Nevin, 2004). Although co-teaching is heavily researched in elementary and special education, the literature on co-teaching in higher education is limited (Chanmugam & Gerlach, 2013; Ferguson & Wilson, 2011; Kariuki, 2013). However, recently, Chanmugam and Gerlach (2013) have focused on the benefits of co-teaching in the development of future educators, while Wilson and Ferguson (2012) have studied co-teaching as a model for pre-service teachers. In addition, Gillespie and Israetel (2008) investigated co-teaching in situations where instructors merge their diverse knowledge in their areas of specialization. The findings of these studies showed that students responded positively to co-teaching and that collaborating instructors learned a great deal from each other. However, the studies also documented students' and instructors' struggles with issues of power, authority, and shared responsibility for the course. For example, students of a co-taught course in the study conducted by Dugan and Letterman (2008) expressed negative feelings in regards to course organization and communication with instructors, while the participating instructors expressed concern regarding the additional planning time required. At the same time, Dugan and Letterman's (2008) study also found that personal reflection was instrumental in improving the co-teaching experience and concluded that co-teaching was beneficial because it led to mastering new skills and facilitated collaborative learning.

Sachs et al. (2011) discuss the original models of co-teaching for large groups, developed by Friend and Cook in 2007. They found that there were three main types of higher education models utilized in large classes: One Teach/One Observe, One Teach/One Assist, and Team Teaching. The One Teach/One Observe model is the most often used and most passive model of teacher training. In the One Teach/One Assist model, one instructor manages the course instruction, while the other helps direct student attention or helps individual students. A benefit of the One Teach/One Assist model is that "each co-teacher can work from his/her own strengths as they showcase their personal insights to the class" (Vermette, Jones, & Jones, 2010, p. 53). Team Teaching, defined by Friend and Cook (2007), is the mutual engagement of both instructors with joint responsibility for delivering content to students (Sachs et al., 2011). Team Teaching offers the opportunity for one of the co-instructors to clarify information for students by using an instructional strategy that differs from the other instructor's style. For this study, the co-instructors chose to follow the Team Teaching model and utilized lecturing and active

learning methods of instruction. Lecturing is a form of teaching where the instructor verbally explains the course material to the students. In contrast, active learning engages students in thinking about the content through participation, peer tutoring, and group learning (McKeachie & Svinicki, 2006). Using active learning strategies in the classroom has been reported to result in higher-level student engagement with the material, more questions regarding course content, and students being drawn more deeply into the study of the material (McKeachie & Svinicki, 2006).

Mentoring

Mentoring, defined by Mertz (2004), is a hierarchical, but supportive work relationship based on intent and level of involvement (Sachs et al., 2011). Mentoring graduate students is especially important as they learn to transition from industry or graduate student status to academia. Corbett and Paquette (2011) advocate for mentoring because “graduate student teachers report that they have received inadequate mentoring and formal observations which negates their ability to improve interactions with undergraduate students or stimulate their professional growth” (p. 288). They also argue that successful mentoring experiences will likely increase the number of faculty members willing to mentor others in the future, which helps the cycle continue (Corbett & Paquette, 2011).

The components of a formalized mentoring program include mentor training, the establishment of specific goals, time devoted solely to mentoring and regular feedback sessions, practicum or internship experiences, formal or informal courses or workshop participation, tracking and data collection to assess outcomes, and surveys of mentees post-mentorship (Vega, Yglesias, & Murray, 2010). This case study utilized all of the above elements.

Significance of the Study

Teaching in collaborative settings increases graduate student (mentee) confidence in their abilities by having access to expertise and assistance from a more experienced co-teacher (Vermette et al., 2010). However, co-teaching and mentoring have been virtually unexplored in FACS literature, including fashion merchandising, where this study was conducted. In addition, “existing literature has not looked systematically at graduate student teachers as co-teachers with experienced faculty” (Henderson, 2010, p. 247) or how graduate student co-teachers have effectively enhanced student learning outcomes. Existing studies on co-teaching and mentoring have explored instructors of the same level teaching together (such as two doctoral students), co-teaching in graduate programs or elementary schools, but not in large undergraduate classes. In addition, these studies addressed only collaborations that utilized disciplinary expertise considered atypical in FACS education and gathered data over a short period of time. Therefore,

this semester-long study that interrogates a cross-disciplinary co-teaching experience in fashion merchandising seeks to fill the void in the literature.

Conceptual Model

Bryant-Shanklin and Brumage's (2011) Collaborative Responsive Education Mentoring Model (CREMM) was used to guide the study. CREMM is a systems theory model that posits changes in higher educational outcomes, including benefits to participating instructors and students, can be attained through faculty-to-student educator mentoring. CREMM is a recently-developed model that was adapted from Thousand and Villa's (1995) Managing Complex Change Model. The model advocates for a formalized mentoring model in universities and calls for a collaborative process of mentoring between faculty members and pre-service teacher candidates. CREMM has been especially recommended in situations when professional mentee scholars bring to the classroom nontraditional, nonresearch-related, or world, experiences. Bryant-Shanklin and Brumage (2011) summarize the essence of CREMM by stating: "Both faculty and teacher candidates can benefit from this model as they endeavor to complete research, teaching, and service activities [because] the model supports using the talents of both faculty mentors and mentees" (p. 49).

CREMM is recommended for use in higher education and includes three pillars: a mentor teacher/professor, a mentee scholar/student, and diverse academic knowledge base. The purpose of the collaboration is dedication to a common project or research. CREMM posits that growth or change in higher educational environment occurs when the three pillars are utilized in a formal mentoring process that incorporates feedback sessions.

The dynamics of CREMM include several perspectives of a successful mentoring relationship. First, the participants are expected to have a broad scope of knowledge. Second, all participants in the mentoring relationship are expected to grow from the experience. Third, faculty and mentee faculty, regardless of their position in academia, need to seek to expand their level of expertise in new content areas.

CREMM was originally developed to address the needs of faculty employed at teaching-intensive universities to assist faculty to transition to a more research-focused environment. The authors of this study postulate that CREMM, proven to increase research productivity and success, can also increase mentee success in teaching through a combination of mentoring and co-teaching as long as the three pillars of the model stated above are utilized.

This study discusses an application of CREMM and reports the findings from data collected during a semester-long co-teaching and mentoring experience. The goals of the experience were: (1) Improvement of student learning outcomes through exposure to co-teaching utilizing a cross

disciplinary approach; (2) Career development and increased knowledge of mentee scholar and mentor faculty; and (3) Advocacy of formal mentoring programs, especially in FACS where practical knowledge and emphasis on teaching have always been valued.

Research Questions

The following research questions framed the study:

1. Would a combined co-teaching and mentoring relationship structured to follow CREMM enhance learning outcomes of students?
2. Would a co-teaching and mentoring relationship structured to follow CREMM enhance the learning outcomes of both the mentor faculty and mentee scholar?
3. Can co-instructors (mentor and mentee) successfully plan course content, manage time, and resolve power and authority issues in a co-teaching and mentoring environment?
4. Would the co-instructors, based on the findings of the experiment, recommend advocating for formal mentoring programs in FACS?

Participants and Their Roles in Co-teaching

The participants in this study included: (1) a class of 45 undergraduate students; (2) a graduate student mentee [from now on co-instructor 1]; and (3) a faculty mentor [from now on co-instructor 2]. The students were all undergraduate students (mainly sophomores and juniors) enrolled in an Introduction to Fashion Merchandising class. Co-instructor 1 is a doctoral candidate with concentration in International Merchandising in the College of Family and Consumer Sciences. She has many years of retail and business experience, in addition to an academic background in business. She is also enrolled in the Interdisciplinary Certificate for University Teaching program. Enrollment in this program is considered a strength of the study because the coursework prepared co-instructor 1 to incorporate active learning techniques and implement technology-driven tasks in the class. Her mentor, co-instructor 2, is a tenured Associate Professor and fashion scholar at the same university. Co-instructor 2 is an experienced teacher of the course and a former international teacher trainer with an extensive social/psychological and cultural studies background. The differences in educator expertise, knowledge, and experience constitute academic diversity as required by CREMM.

The co-instructors decided to team teach by dividing responsibility for the course into segments. Co-instructor 2 was the main instructor for the first half of the course until the midterm exam to allow co-instructor 1 opportunity to become familiar with the class, required course materials, and existing lectures and to learn by observation. While co-instructor 2 was the official teacher of record for the class, co-instructor 1 had substantial decision-making power regarding changes to course content, methods of course delivery, and issue resolution with students. Co-instructor

I was able to revise the syllabus prior to the class and develop new projects and learning activities. Despite this, constant revisions to the course throughout the semester were necessary. Co-instructor 1 also graded all assignments and exams and was the main instructor for the second half of the semester. Sachs et al. (2011) reintroduce Lortie's argument from 1975 regarding teaching apprenticeships and state that this set up is beneficial since pre-service teachers learn by apprenticeship of both observation and engagement. Because both instructors were active participants of the experiment, they attended every class.

The various roles of the co-instructors in the project followed known teacher education models discussed above: One Teach/One Observe, One Teach/One Assist, and Team Teaching. For One Teach/One Observe, the co-instructors took turns, and while one instructor managed the overall class instruction, the other observed the whole class or small groups to gain important information on the students. Although the One Teach/One Assist model was not used often, it was helpful at times when one of the co-instructors interjected experiences from a business perspective or refocused attention on the cross-disciplinary nature of topics covered. The overriding primary model used for the course was Team Teaching.

Methodology

Data Collection Method: Co-instructors

The authors implemented three qualitative data collection methods: (1) logbook documentation and reflection; (2) undergraduate student evaluations; and (3) undergraduate student surveys. Triangulation of the data from the three sources was done to support the credibility of the findings (Lincoln & Guba, 1986).

Glesne (2006) and Patton (2002) support the use of qualitative methods for case studies. This case study utilized both co-instructors as research instruments. Consequently, as recommended by Patton (2002), they were fully involved and immersed in the study. As a naturalistic inquiry approach, the study was designed to understand and capture the points of view of other people, as well as in this case, those of undergraduate students. The research took place in a real-world setting, which allowed lived experiences to unfold naturally throughout the semester.

The mentee/co-instructor 1 collected data in a semester-long logbook by keeping a dated and detailed written record of the work during the semester. Notes were taken on all weekly mentoring activities, discussions, notable events, and exchanges with students. The mentor/co-instructor 2 and the mentee/co-instructor 1 met three times per week for a minimum of one hour to discuss the class, assignments, and issues with students. The logbook was used as a research tool to reflect upon what was or was not working in the mentoring process and where the authors struggled to meet their goals. The co-instructors' time together was also used as debriefing

sessions of what they learned from peer observation, which is a technique that Chanmugam and Gerlach (2013) argue has a positive influence on co-teachers' personal and professional development. They state, "ongoing debriefing and shared reflection are essential" (Chanmugam & Gerlach, 2013, p. 115). The authors also chose this data collection method because documenting and reflecting allows researchers to become "a human instrument" (Lincoln & Guba, 1985) through building on previous knowledge and newly-learned lessons. Additionally, the authors used this method because Ferguson and Wilson (2011) have successfully utilized professor journals as data sources for documenting co-teaching in higher education.

Data Collection Method: Undergraduate Students

At the end of the semester, the undergraduate students were asked to provide feedback about their perceptions of the mentoring/co-teaching environment and their learning outcomes by completing an open-ended questionnaire. The questionnaire was IRB-approved and only given to students after receiving their consent to participate in the study. Participating undergraduate students received extra credit. If they declined to participate, they had a chance to earn extra credit in another way. Two students declined participation in the study. Out of 43 participating undergraduate students, this course was the first time 33 of them had participated in a co-taught course. Students were asked ten questions about their experiences in the co-taught course.

Besides the questionnaire, the undergraduate students also completed course evaluations, a separate departmental instrument, which was altered to include open-ended questions addressing the performance of co-instructor 1 and the co-teaching environment. They explained the strengths and weaknesses of the co-instructors in their narrative responses. The co-instructors asked a graduate student not involved in the research to administer and collect the anonymous surveys to eliminate bias. The undergraduate students were told that their participation was voluntary, and no identifier information was given to the instructors.

Data Analysis

Data analysis took place by using a grounded theory approach and utilizing the constant comparative method (Lincoln & Guba, 1985). Narratives from surveys and evaluations were read and reread, highly repetitive quotes and phrases highlighted and separated into groups by codes where themes emerged. Negative cases were also noted and highlighted for potential revision of the emergent themes.

As the human instruments in this study, the co-instructors also collected data in the form of logbook notes. The logbook documented issues and discussions, memories, thoughts, and feelings. Logbook data were analyzed by both co-instructors and summarized in the form of written reflections. Ortlipp (2008) stated, "A reflexive approach to the research process is

widely accepted in much of qualitative research” (p. 1). Reflections of participants have also been used to discuss and analyze data in other qualitative studies, including Devlin-Scherer and Sardone (2013) and Silva, Correia, and Pardo-Ballester (2010). In addition, Chanmugam and Gerlach (2013) emphasized that research participants “learned about their strengths and weaknesses through their own reflective processes” (p. 114). The co-instructors’ reflections mostly addressed the second research question regarding enhanced learning of faculty in a formal co-teaching and mentoring process. The authors discuss the data which highlight the successes and challenges of the mentoring and co-teaching process, lessons learned, and implications for future co-taught courses in FACS in the following sections.

Results

Undergraduate Student Feedback: Survey Questionnaire and Course Evaluation on Co-teaching

The data extracted from the undergraduate student questionnaire aimed to address the first research question concerning student learning in a co-teaching environment, structured according to CREMM. Several themes emerged from the questionnaire data—both positive and negative. Positive themes stated to impact student learning included establishment and demonstration of respect between the co-instructors, higher level of responsibility for course management for co-instructor 1 than generally expected of a teaching assistant, benefits of having two instructors with different sets of expertise, increased competence and knowledge of the field of fashion merchandising, and more access to instructors.

Among the strengths most highly rated by students were the different skills sets the instructors brought to the course and the way the instructors complemented each other. One student summarized what several students reported by stating, “[One instructor’s] strength was explaining [course content] in an interactive way so we could apply what we learned, the other’s was her first hand knowledge and experience of international culture and fashion.”

Data from the questionnaires also addressed the third research question regarding the success of a co-taught course, enhanced by a mentoring relationship. The majority of students felt the co-instructors were able to share power within the course, although some preferred the (mentor) professor to have more power over test preparation and grading. The student responses made it clear that students originally expected the mentor and mentee instructors to have different levels of power in the classroom and with grading. While one student wrote that “co-instructor 2 always treated co-instructor 1 as an equal,” another student noted that “ultimate authority was ambiguous, which sometimes made it difficult to know exactly what was expected.”

The majority of the undergraduate students benefited from the different pedagogical techniques that having two instructors brought to the class. Co-instructor 1 focused on active learning lesson plans, which include the 4 C's of 21st Century learning: Collaboration, Communication, Critical Thinking, and Creativity (Partnership for 21st Century Skills, 2011). Students appreciated this, as evidenced by statements, such as "I liked the interaction with classmates" or "I feel like [active learning] increases my learning and keeps me interested in the topic of discussion." Another student emphasized that "it kept me involved and the goals and certain opportunities motivated me." In addition, one of the students noted, "the dynamism of co-instructor 1 added excitement and new ideas" to routine lecturing that characterizes instruction in large undergraduate classes.

In the survey questionnaire, undergraduate students also communicated negative thoughts about co-teaching, the course, and class environment. The themes that emerged included feelings of confusion about what to expect on the test from the different types of teaching methods or instructors, frequent changes that occurred in the syllabus that affected class schedule, lack of time to cover all parts of the course book, and the difference in the speed of covering the material from one instructor to the other. Students also noted general problems with note-taking and having in-class assignments for which they had been required to read prior to class. Although most of these issues were expected by both co-instructors as this was a course that incorporated many changes and was co-taught for the first time, they offer important points for future co-teaching partnerships, especially when the collaborators are in the planning stages of course design. The negative themes also suggest new questions for future research, such as how to communicate and create proper assessments from different co-teaching styles and how teachers can effectively assume duties of planning a course to provide seamless instructional environment in terms of speed and material covered. The authors found that the official course evaluations contained similar themes and corroborated evidence from the student questionnaires.

Results from Logbook: Mentoring

Thematic data also emerged from analyzing the logbook for the semester. The themes that emerged addressed the third research question: departmental, classroom management, student, grading/testing issues, and general professional advisement. Departmental issues included focus on extraneous issues within the mentoring relationship that were separate from course content and delivery issues. Classroom management included issues of time, power, balance of work load, and the pace of covering material by different instructors. The student category included items such as tardiness, late assignments, ignoring classroom rules, and resolving student complaints related to group work. Grading and testing issues included the number of students who desired to resolve or seek further clarification on a particular grade, assignment, or test question. All other specific tasks were categorized as general professional advisement from mentor to mentee and included feedback on teaching, assessment and evaluation techniques, and

assistance with research-related issues. It was apparent from the logbook that a great deal of time was needed to collaborate outside of class to provide students with an environment where expectations were clearly understood.

The majority of time in the co-teaching and mentoring process during the semester was spent resolving grading and testing issues. Students tended to link the co-instructors' backgrounds and teaching style to assuming that the exams would challenge them in different areas. This prompted the authors to realize that it was essential that students clearly understood that assessments were linked to learning objectives and class activities and *not* to a particular instructor, her expertise, or her teaching style.

Reflection I: Mentee /Co-instructor 1

“The opportunity to grow into the role of instructor is an essential part of a fine graduate program” (Settles et al., 2002, p. 423). As the mentee in this case study and a doctoral candidate, I wholeheartedly agree with this statement because I have found mentor guidance, co-teaching and practice teaching to be the most valuable experience in my journey at the university. Participating in a semester-long process enhanced my learning and helped me formulate my answer to the second research question.

The learning outcomes that I have gained were nonrepetitive of what I had already mastered in industry and in lower-level degree programs. In fact, the opportunity to co-teach a class provided me with the comfort level to lecture and expand into other teaching techniques that suit my personality and educational philosophy. This experience allowed me to become confident in decision-making prior to teaching individually. It also provided an opportunity for my students to recognize and comment on my abilities, which allowed my own teaching style to emerge.

I learned that team teaching was an effective method of co-teaching because it offered the opportunity to instruct individually with the reinforcement and perspective of another instructor. I also discovered that students learn best when a variety of teaching techniques are employed. The diversity of teaching methods noticeably increased the level of student learning and engagement in the course as evidenced by student interaction during office hours, logbook notes, and student evaluations. At the same time, I became aware that implementing team teaching significantly affects time management, evaluations, course structure, and impacts power and authority relations between instructors.

After reflecting on the course, I realized that a co-teaching experiment can only be successful if proper amount of time is allowed for planning and implementation. In addition, if the co-teaching experience is coupled with mentoring, the experience will become even richer, which relates to the fourth research question of the study. The mentoring experience allowed me to

grow as a teacher in terms of course development and classroom maintenance. It also taught me how to successfully collaborate with another educator. The experience made a positive impact on my career growth and professional development because my mentor effectively provided me with models, feedback, and experiences that have helped prepare me to teach future courses independently and with full authority.

Reflection II: Mentor/Co-instructor 2

The professional relationship that was established for this study fostered an environment in which the co-instructors both could learn from each other and grow as educators. Besides having a highly motivated and committed mentee, several of my early decisions have helped make our partnership successful. These included supporting my mentee to recognize her individual strengths and unique knowledge and build upon it. An important aspect of our collaboration was to provide a platform for my mentee to become a self-confident educator. I made it clear that I considered our co-teaching experience an equal partnership and mutual learning exercise.

To mitigate power imbalances, I involved my mentee in every aspect of the course: planning; classroom delivery and management; the creation of course materials, lecture slides, and tests; as well as grading. We were brainstorming and problem-solving together, and she was also involved in conflict resolution with students. To build trust and ensure equality in our collaboration, I asked her to provide me with feedback on my teaching, existing course materials, and techniques. I underlined that I was open to changes; in fact, I was seeking them so that I could benefit from a different perspective. This give-and-take made our collaboration as dynamic and mutually beneficial as it can be in a formalized mentor-mentee relationship.

Our partnership has helped me grow as a faculty member. It allowed me to hone my management and interpersonal skills and helped me update my teaching strategies. I profited from my mentee's up-to-date knowledge of active learning strategies that she had acquired by participating in the Interdisciplinary Certificate for University Teaching training program. While my mentee was teaching, I was able to observe my students more closely than usual and scrutinize their reactions to different forms of learning. I realized that my teaching style, which is characterized by a preference for traditional lecturing, made my students somewhat passive and uninspired. In contrast, my co-instructor's active learning strategies made them involved and creative. My mentee's learning games and proclivity for teamwork resulted in more discussion among the students than in my classes where I generally end up as the main discussant and students talk to *me*, but not to one another. In sum, although this collaboration required considerable time commitment on my part, it was extremely beneficial professionally.

Discussion and Conclusions

The majority of the undergraduate students reported increased learning outcomes from the combination of experiences and diverse knowledge brought by the co-instructors. The undergraduate students disclosed that the cross-disciplinary nature of the course resulted in significant learning outcomes beyond those normally provided with one instructor or a class with a single focus. One aspect of teaching a fashion merchandising course is the global-, cultural-, political-, and career-oriented nature of the subject matter. This fosters an opportunity to partner with instructors from diverse backgrounds to provide students with the information needed to be successful in the global marketplace.

Feedback from the questionnaires and course evaluations, together with the authors' self-reflections indicate methods to successfully integrate a co-teaching practicum into the fashion merchandising discipline. The authors concluded that utilizing a cross-disciplinary curriculum and implementing multiple teaching styles within co-teaching produces positive learning outcomes for both students and instructors. These results concur with recent research on co-teaching in higher education (Chanmugam & Gerlach, 2013; Gillespie & Israel, 2008; Wilson & Ferguson, 2012). In addition, data and the post-experiential reflections support a conclusion that the professional mentoring relationship not only improved instruction but also benefited both parties in terms of personal and professional development and increased their teaching competence. At the same time, it also had to be realized that the co-teaching experiment sometimes caused anxiety for the students, especially in the area of test preparation. Student responses made it clear that when power relations between mentor and mentee are not entirely clear, students become easily confused about what to expect. This concurs with the findings of other studies that also documented the challenges of power sharing and its impact on students (Chanmugam & Gerlach, 2013; Ferguson & Wilson, 2011; Kariuki, 2013; Waters & Burcroff, 2007).

The authors found that both lecturing and active learning techniques were enjoyed by different sets of students. At the same time, data also exposed that incorporating both provided the most optimal learning opportunities for the students. Because the co-instructors were able to create a sense of "fun" by implementing active learning strategies in the classroom, they were successful in reducing the stress level of students not accustomed to co-teaching. However, in order to achieve such results, significant and ongoing planning and adjustments were necessary (Waters & Burcroff, 2007), which required a lot of flexibility.

CREMM provided structure and guidance for the study. The data suggest that CREMM is a useful tool for facilitating changes in higher educational learning outcomes for instructors and students alike through faculty-to-student/professional educator mentoring in FACS. These findings concur with those of Ferguson and Wilson (2011) who stated that pre-service teachers

need to be exposed to a model of collaboration that provides professional support and learning. The case study revealed that a co-teaching experience, incorporating the three pillars of CREMM, is an effective way to increase learning outcomes. In addition, the authors were able to establish that CREMM is enhanced through a formalized mentoring relationship.

Johnson, Yust, and Fritchie (2001) studied views on mentoring in a Clothing and Textile Department and found that mentoring relationships were important and beneficial. Despite this, they concluded that institutions were not establishing such relationships because of lack of resources and departmental and bureaucratic obstacles. The authors hope that the following recommendations can be helpful in removing some of those barriers.

Recommendations

- Find a model of a formalized mentoring and/or co-teaching program and implement it at your department to provide a cross-disciplinary experience to students through partnering faculty with graduate students who have related, but different, backgrounds.
- View the diverse and broad array of knowledge that the co-instructors bring to the classroom as an asset.
- Work at the departmental level to increase funding, motivation, structure, and awareness of the benefits of collaboration and co-teaching within a formal mentoring environment.
- Provide ample time for the co-instructors to plan the course jointly because the design for a co-taught course is a complex process of collaboration and negotiation that needs to result in a seamless flow for the students.
- Incorporate several teaching techniques into your lesson plans, but remain true to your teaching style to model and foster authentic knowledge.
- Provide a high level of communication to students at the beginning of the semester regarding both instructors' expectations for testing, grading, and the level at which students are expected to perform and master course material.
- Make sure the students understand that teaching styles and instructional activities do not depend on individual instructors, but on the instructional goals of the course.
- Ensure that co-teachers are able to meet frequently because the smoothness of the relationship between the instructors impacts students' perception of power, authority, approachability, respect, and comfort with the instructors, as well as how students view the relationship between the instructors.

The above recommendations are meant to provide a model for collaboration as we work to train future faculty and provide interdisciplinary education to FACS students.

Limitations of the Study

Although this case study adds to the literature on mentoring and co-teaching in FACS, it has limitations. One limitation may be that the study included both instructor and student learning outcomes. Future research may require separating instructor learning outcomes from those of students and creating multiple case studies from the data. However, Patton (2002) noted that although case studies are expected to capture the complexity of a single case, a case study may be made up of several smaller case studies “layered or nested within the overall case approach” (p. 298).

Another limitation may be the obvious subjectivity of the co-instructors. Although the authors were careful to consider and report negative themes from the students’ viewpoint, they acknowledge that they were not able to fully remove themselves from the case as researchers. However, despite their insider status within the study, they have made every effort to make their thought processes transparent through their reflections.

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