

‘WE CONSIDERED OURSELVES A TEAM’: CO-TEACHING FROM THE PERSPECTIVE OF GRADUATE TEACHING ASSISTANTS

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ABSTRACT

Previous research has explored the influence of co-teaching models on student learning in the K-12 grade curriculum. However, little research explores the effects of co-teaching models implemented in higher education among graduate teaching assistants (GTAs). This case study examines the benefits and drawbacks of co-teaching models in higher education classes for GTAs. Two sections of the basic communication course (one for international students and one for American students) at a mid-sized Midwestern university were combined for 50% of the semester classes. Lessons with a focus on intercultural communication were co-constructed and co-taught by two GTAs. Based on this experience, a reflexive journal was used to identify emerging themes pertaining to the benefits, drawbacks, and student learning outcomes of co-teaching by GTAs in higher education. In addition, in-depth semi-structured interviews were used to gather the perspectives of three GTAs with co-teaching experience. Results reveal variety of teaching approaches, wealth of instructor experiences, instructor chemistry, and instructor approachability as benefits of co-teaching. Perceived drawbacks include power distances and lack of familiarity with pedagogy and co-teaching models. Implications for GTAs and students in higher education are explored.

Keywords: co-teaching; graduate teaching assistants; higher education

Introduction

‘We considered ourselves a team’:

A view of co-teaching from the perspective of graduate teaching assistants

Although around for close to 70 years, co-teaching models have shown limited use in higher education and have been scarcely researched. Even when studied, graduate teaching assistants (GTAs) have been eliminated from such research. Despite this gap in research, co-teaching offers benefits to instructors and students (Walters & Misra, 2013). Furthermore, it provides educators and practitioners with the opportunity to explore co-teaching approaches and their potential as a training model for GTAs and as an alternative pedagogical style from which undergraduate students may learn and grow.

Although used by some general and special educators, co-teaching models have been selectively implemented in higher education (Potts & Howard, 2011). In university settings, educators are often collaborative in their research, but not in their teaching. Perhaps college faculty do not collaborate on instruction because they are limited to teaching loads in a semester-length course, unlike K-12 teachers (Lock et al., 2016). Also, co-teaching requires faculty to invest more time and energy (Held & Rosenberg, 1983), potentially leading to the perception that there is less time for research (Korhonen & Törmä, 2016). It is such perceptions that likely lead to less interest in the implementation of collaborative teaching models amongst faculty.

While few professors have attempted co-teaching, even less GTAs have done so (Walters & Misra, 2013). Co-teaching can be utilized as a form of GTA training, but it requires greater investment of time and energy (Walters & Misra, 2013), which may deter faculty members from forming a co-teaching relationship with a new instructor. Therefore, there are very few opportunities for GTAs to partake in co-teaching. This is unfortunate considering the potential benefits of co-teaching partnerships.

If used effectively, co-teaching models may work well in training GTAs. For a new instructor, the transition from novice to veteran involves learning discipline-specific content and pedagogy (Smith, 2005). New instructors must also learn to communicate effectively with diverse learners in the classroom, and with colleagues and administrators (Hunt, Simonds, & Cooper, 2002). Building these skills ultimately boosts the self-concepts and perceived competence levels of GTAs (Korhonen & Törmä, 2016). Because co-teaching involves frequent communication and one-on-one opportunities with a partner, it provides an ideal platform for building competence with content, pedagogy, and communication.

The use of co-teaching models also allows a platform for graduate students to work together to ensure quality teaching practices within the classroom. For example, Hunt and Weber Gilmore (2011) posit that

graduate students in co-teaching relationships learn to develop course materials, manage classroom behavior, and develop an authentic teaching style. In addition, having another instructor in the classroom allows the co-teaching partners to observe and implement different teaching strategies, such as lecturing, discussion, and small group work (Walter & Misra, 2013). When things go awry, the co-teaching partner can offer feedback on areas of improvement to his/her colleague. When programs implement co-teaching as a training model for GTAs and eventually “shift roles from teaching assistant to lead instructor through supervision,” GTAs have the potential to form a teaching philosophy and personal style and “gain confidence and competence as teachers” (Baltrinic, Jencius, & McGlothlin, 2016, p. 32).

Sweigart and Landrum (2015) assert that limited empirical evidence has been collected regarding co-teaching within higher education classrooms. Even less research exists pertaining to the use of co-teaching as a pedagogical approach among GTAs. Therefore, this case study was conducted to fill a gap in the literature. It serves as a preliminary investigation to understand the benefits and challenges that may be involved with co-teaching for GTAs in higher education. With this goal in mind, the following research question was advanced:

RQ: From the perspective of GTAs, what are the benefits and drawbacks of co-teaching versus traditional approaches?

Literature review

Co-teaching Models Defined

Co-teaching has been defined as “two or more people sharing responsibility for teaching some or all of the students assigned to a classroom” (Villa, Thousand, & Nevin, 2004, p. 3). Effective co-teaching involves more than thoughtful planning, instruction, and evaluation of instructional approaches. At its best, co-teaching is a marriage between instructors that is built upon trust, healthy communication, and collaborative approaches (Villa et al., 2004).

Potts and Howard (2011) outlined six models of co-teaching: (1) one teach, one observe, (2) one teach, one assist, (3) station teaching, (4) parallel teaching, (5) alternative teaching, and (6) team teaching. Careful consideration of these models can help instructors to choose the appropriate one given the specific classroom circumstances. In the *one teach, one observe* co-teaching classroom, one instructor teaches a lesson while the corresponding teacher observes the students, often offering remedial attention to students who are struggling. In the *one teach, one assist* model, one instructor teaches the lesson while the other floats around the room providing assistance to individual or groups of students. In *station teaching*, teachers share equal responsibility in implementing the lessons with stations through which students rotate. In *parallel teaching*, instructors are each responsible for teaching a smaller section of students, which helps to lower the teacher-to-student ratio. In *alternative teaching*, teachers pull aside groups of students for additional instruction when necessary. Finally, in *team teaching* classrooms, instructors equally share the planning, teaching, and assessing of all the students in the classroom.

When deciding which model is best in a given co-teaching partnership, teachers need to consider their ease in planning together, possible time commitments, comfort with course content, and the size of the classroom (Potts & Howard, 2011). For example, while team teaching requires instructors to understand the course content and commit to lengthy planning times, station teaching requires less time for co-planning but more time for individual construction of lessons. A number of the models may work effectively for GTAs who co-teach. In this study, the team teaching model was adopted to ensure shared responsibility for planning, teaching, and assessment.

Current Perspectives on Co-teaching

When implemented successfully, co-teaching has been found to have multiple benefits in the classroom. First, in a typical co-teaching classroom, the teacher-student ratio greatly improves (Diana Jr., 2014; Sweigart & Landrum, 2015). A smaller number of students gives new teachers the opportunity to “ease” into teaching. Teachers also grow professionally because they are more invested in developing and meeting learning objectives through collaboration with another teacher (Villa et al., 2004). In addition, co-teaching offers avenues for instructors to model non-traditional pedagogical approaches in the higher education classroom (Harris & Harvey, 2000). In other words, co-teaching is a learning opportunity for new instructors due to the fact that they are responsible for less students while having increased opportunity for reflection and practice with a teaching partner. Such reflection and practice leads to increased motivation and job satisfaction (Villa et al., 2004; Potts & Howard, 2011).

Although there are benefits, co-teaching approaches also have drawbacks associated with their use based on time and instructor compatibility. First, co-teaching is more time consuming (Letterman & Dugan, 2008). A co-teaching pair must create a syllabus, lesson plans, and grading procedures collectively, which may take extra time. One instructor may also take longer to grade than the other; this lapse in time may cause frustration. Furthermore, conflict may arise between instructors or power differences may surface (Letterman & Dugan, 2008). Either of these could cause disruptions within the classroom. Lastly, administration, support staff,

and other teachers may view co-teaching as an educational fad, claiming that the traditional approaches to teaching are more effective (Diana Jr., 2014).

Methods

The purpose of this study was to examine GTA perspectives on co-teaching models used in college classes. In this preliminary investigation, a co-taught classroom was designed and implemented by two GTAs. A reflexive journal and in-depth semi-structured interviews were used to gather the perspectives of GTAs, and content analysis was used in coding the data. The methods are explained in more depth below.

Co-teaching Course Design

Two sections of the basic communication course (one for international students and one for American students) at a mid-sized Midwestern university were combined for half of the semester classes. Lessons were co-constructed and co-taught by two GTAs. The team teaching model of co-teaching was used. GTAs equally planned, taught, and took responsibility for the students. Mindful of their strengths and weaknesses, the GTAs would simultaneously deliver lessons, taking the lead at times, and supporting at other times.

Data Collection

Recruitment. Following approval from the Institutional Review Board (IRB), GTAs were recruited through known-group sampling via an e-mail invitation; the recruitment script was sent to GTAs at a mid-sized Midwestern university. Only those who had experience with co-teaching methods were invited to participate, which resulted in three volunteers.

Participants. Three GTAs at a mid-sized Midwestern university were interviewed. The instructors interviewed had all taught in both traditional and co-teaching classrooms. Two of the instructors had co-taught with an experienced instructor, while the third participant had co-taught with another GTA. Of the three research participants, one interviewee identified as a White, female instructor, one identified as an African American, female instructor, and one interviewee identified as a Bangladeshi, male instructor.

Procedures

Interviews. Interviews were conducted at a location and time chosen by the interviewee to ensure convenience and privacy. Before beginning the interview, consent forms were collected by participants. Notes were taken during the interview to record important themes that emerged from interviewee responses. Semi-structured interviews were used to guide the conversation but also allow freedom to move beyond the constructed set of questions (Reinard, 2008). The interviewer worked from a list of questions, but following interviewees' responses, the interviewer paraphrased and/or asked clarification questions at times. This approach allowed the interviewee to finalize his/her thoughts before proceeding to another question. It also helped to ensure more thorough responses to the interview questions.

Reflexive journal. As one of the instructors in the co-teaching classroom structured as a part of this study, it was important to include my perceptions of co-teaching in the form of a reflexive journal. Reflexive journals are used to expand on learning experiences, prompting an individual to reflect on a range of viewpoints and perspectives. Commonly used in the field of education, Alexandrache (2014) claims the purpose of reflexive journals is to allow the "expression of the feelings and the attitudes manifested" (p. 22). Alexandrache argues that because reflexive journals involve self-evaluation, they can also be a part of learning, especially if they "emphasize the conceptual development of the things learned during the psycho-pedagogical classes and on the mental processes developed during the teaching practice" (p. 22).

There are two types of reflexive journal approaches, including simple and elaborate reflexivity. For this study, I engaged in elaborate reflexivity, which is defined as data analysis "in which one relates to others and the way in which one personal experience is compared to another or to the experiences of others" (Alexandrache, 2014, p. 23). In using elaborate reflexivity, I examined the similarities and differences between my experiences and the observations of the GTAs in this study. In this way, my voice serves as another participant, contributing to the body of knowledge on the benefits and drawbacks of co-teaching. In addition, I hope to offer additional analysis through examination of the comparison between my experiences and those of the GTA participants in this study.

Content Analysis

To ensure quality data analysis, the three phases of content analysis suggested by Elo and Kyngas (2008) were used, including 1) preparation for analysis, 2) organizing, and 3) abstraction. The preparation phase of content analysis requires the selection of a unit of analysis, often a word or a theme. Themes were chosen as the unit of analysis for this study. Additionally, the researcher must decide whether to consider the manifest or latent content or both. To best fit with the purpose of this study, manifest content was chosen for analysis. Once the researcher decides on the unit of analysis and type(s) of content to explore, he/she must make sense of the

data in order build familiarity prior to analysis. To build familiarity with the data, the reflexive journal and interview transcripts were read through several times.

After the preparation stage, the researcher organizes data through inductive or deductive content analysis. An inductive approach was taken due to the paucity of research pertaining to co-teaching, the phenomenon of study (Elo & Kyngas, 2008). To code both the reflexive journal data and the GTA interview data, the three stages defined by Elo and Kyngas (2008) were used: open coding, categorization, and abstraction.

During open coding, notes and headings were recorded in the margins while reading through the reflexive journal and transcripts. After open coding, lists of categories to be grouped together were created based on the nature of the comments. This allowed similar themes to be grouped into similar, yet broader, categories. Dey (1993) posits that creating categories does not simply bring together similar concepts or themes; rather it allows phenomena to be classified as belonging to a group that can be compared to or contrasted from different categories.

Lastly, to engage in abstraction, categories were created using content-characteristic words. For example, GTA participants offered themes related to “teaching styles,” “chemistry of co-teaching partners,” and the “lack of co-teaching knowledge.” Results of the coding process are shared in the Results.

Results

Four themes pertaining to benefits and two themes related to drawbacks of co-teaching from the perspective of GTAs were generated from the data. To protect the anonymity of the interview participants, pseudonyms are used when sample responses are provided.

Benefits

Four themes emerged as benefits of co-teaching: a variety of teaching approaches, the wealth of instructor experiences, instructor chemistry, and instructor approachability.

Variety of teaching approaches. A variety of teaching approaches were discussed as a benefit to co-teaching because this variety contributed to better teaching. Participants discussed how such variety led to compensation for their own instructional weaknesses, enhanced instruction, and personal growth.

For the participants of this study, having a variety of teaching approaches present in the classroom helped the individual instructors to compensate for their weaknesses. For example, in response to a question pertaining to the characteristics desired in a co-teaching partner, Lillian replied “I know there are things that I struggle with in the classroom on a personal level... and I feel like the partner that I was granted the opportunity to work with was really good at helping to cover and balance all those things.” She further claimed, “There were a couple instances when we were together, and I was watching my partner and I was like ‘wow! If I could just do that’.” Peter’s comments offer a similar perspective. In referring to his initial days of co-teaching, he states, “At that time, I was not sure how I should address the issue [of lack of experience] or how well I trust myself with this teaching environment.” For Peter, having a co-teaching partner made teaching in a new environment more comfortable.

In addition to helping to compensate for instructional weaknesses, the participants felt that co-teaching enhanced instruction. Participants discussed the opportunity to gather more ideas during course preparation and to create better lesson plans, classroom activities, and discussion prompts. In my personal experience with co-teaching, the development of lesson plans, activities, and discussions were fundamental to my growth as an instructor. My co-teaching partner and I would bring former lessons from previous semesters to our preparation time, only to leave with an advanced version of our lessons and activities. For example, we modified a game of cultural bingo for our students. Originally, the game was adapted for American students only. However, working together, we developed a game of cultural bingo that provided insight into global perspectives that represented both domestic and international students in our classrooms. The co-teaching experience enabled us to change our classroom materials to fit the changing needs of our students. Lillian further confirms this idea when talking about her experience modifying an activity with her partner:

We kind of went through and changed some of the ideas in the blocks and ultimately the students needed to work together [to complete the activity]. . . and you know, I think doing collaborative activities like that, that’s one thing for sure that I’m going to bring into the classroom [after the co-teaching experience].

Having a partner with whom to design course materials allows for greater creativity and potentially more effective classroom exercises.

Finally, GTAs believed their exposure to a variety of teaching approaches contributed to personal growth as instructors. For example, Diana explained that co-teaching allowed her to “develop a sense of self and your own style of teaching.” She believed her role in the classroom allowed her to teach prescribed content in a way that demonstrated her authentic teaching style. Peter echoed Diana’s thoughts, claiming his co-teaching partner gave him flexibility in his teaching. He fondly remembers being told by his co-teaching partner, “you can go your own way and you can teach it on your own.” In the co-teaching relationship, Peter felt the opportunity to

expand on his teaching style and experience creative approaches in the classroom. The interviewees believed having another instructor in the classroom encouraged development of their own teaching styles because they were able to observe the teaching styles of their partners and improve on their own approaches simultaneously.

Wealth of instructor experiences is good for the students. A wealth of instructor experiences was discussed as a benefit to co-teaching for two reasons. Different experiences contribute to student learning and offer diverse perspectives in the classroom.

According to the GTAs interviewed, the different experiences and perspectives of co-teaching instructors were beneficial to student learning. For example, when asked about the benefits of co-teaching in the basic communication course, Diana claimed that co-teaching provides “more of an opportunity to show these students there are multiple ways to approach communication.” Providing students with multiple perspectives of viewing course content allows students multiple ways to analyze information and come to their own conclusions. Peter’s words confirm this idea: “If one teacher gives an example from one perspective, and the other instructor gives an example from their perspective, students understand that one thing can happen in different ways.” There were even instances when I was co-teaching, and my partner was asked a question for which she did not have an answer. Due to my knowledge in the subject matter, my partner asked for my help and directed the class attention towards me. The wealth of different experiences between my partner and I provided the students with the opportunity to understand how our experiences can shape our understanding of course content.

With more than one instructor in the classroom, navigating difficult conversations or explaining connections between course content and real-life scenarios is more beneficial to students because they are exposed to various life experiences. For example, Diana claimed that “having two instructors provides them [students] different expertise on the same topic . . . a broader understanding than they would have had with just one instructor.” Having more than one instructor provides different experience and expertise levels. For Peter, an international instructor, the presence of his perspective is fundamental in the classroom. He noted, “I always try to give examples from the international perspective because I am more familiar with international issues.” Peter clarified the importance of life experiences in demonstrating the connection between course concepts and life applications. Whether instructors have different nationalities, genders, religions, or other aspects that make them diverse, they all have different life experiences that can be brought into the classroom.

Instructor chemistry. If present, chemistry was a great benefit of co-teaching according to the participants interviewed. In all cases, chemistry was perceived to be crucial to an effective co-teaching classroom. Lillian explained “If you don't have chemistry right off the bat, the students will pick up on it.” Fortunately, because I was already friends with my co-teaching partner, the chemistry was already there. When we taught together, our students knew we enjoyed each other and the collaborative process of co-teaching. When strong and healthy, the chemistry of co-teaching partners can enhance the learning environment. Lillian added the following piece of advice for co-teachers: “You got to have someone that you can actually like to be around. One of the things I was taught was that if you can see yourself not being in a relationship with that person and being all right, then you shouldn't go through with it.”

For Diana, having a teaching partner that has similar qualities and interests is important to maintain chemistry in the classroom. She described her new co-teaching partner: “She’s a woman, she studies queerness, she’s on my level academically . . . like sameness in a sense.” In addition to compatible personalities and academic interests, compatible schedules is important. When Diana worked with an established faculty member, negotiating times to meet was difficult. When working with another GTA during the co-teaching experience, scheduling meetings was much easier. She noted that “with a grad student, you’re basically on campus with them all the time. You can work with that.” She further explained, “If you’re not working closely and collaborating with your co-teaching partner, it becomes this thing where it doesn’t seem even seem like the same class.” For GTAs, having chemistry with their co-instructors can influence whether the co-teaching experience will be a positive one.

Approachability. During the interview, the participants were asked to speak to the benefits experienced by students in co-teaching classrooms. Approachability was one such benefit. Having more than one instructor in the classroom adds another person from whom students can seek help or clarification. This becomes especially important when students do not find one of the instructors approachable. For example, Diana, who co-taught with a male partner often had women approach her, “and they would only talk to me because I was a woman and I was a little bit more approachable.” In addition to gender, this happened with age as well. Lillian stated, “while you have these novice instructors coming in, you have a lot of first year students as well, and you can better assess those needs. I mean, it wasn't too long ago where I was an undergrad myself.” New students can often relate to young GTAs, which makes those GTAs more approachable. Regardless, having more than one instructor in the classroom allows students more opportunity to seek help from an instructor they perceive to be approachable and view as credible.

From my own experience, approachability played a huge role in building relationships with students in the classrooms. During my co-teaching experience, we had a unique class structure that involved 25 international students and 25 American students. Co-teaching allowed the students to engage in collaborative learning with

individuals from cultures different from their own. While some students remained apprehensive about the process, others fully embraced the opportunity. Had our presence been unwelcoming, our students would not have viewed us as approachable. Being able to provide a space for diversity and inclusion within the classroom was helpful to students, yet I do not believe this would have been possible without my co-teaching partner and I allowing our students the space to voice their concerns and build relationships with us both in and outside of the classroom. By the end of the semester, students in the course were exploring other cultures, challenging their worldviews, and making friends with their classmates.

Drawbacks

Although there are benefits to co-teaching from the perspective of GTAs, it is also important to explore the drawbacks. There were two drawbacks discussed by participants: power distance and unfamiliarity with co-teaching approaches.

Power distance. Both interviewees in co-teaching relationships with an experienced instructor noticed power differences present in their co-teaching relationship. Peter explained that he had little role in the creation of his co-teaching course. He said “[my co-teaching partner] nicely explained my role, what would be my role in co-teaching, and how he can help me.” Peter had small amounts of agency when designing and implementing the co-teaching course. He noted, “I was slightly confused and feared how I would work with him and how I would teach the students.” Diana also described an experience of having little agency in the classroom: “To some extent if you have all of this content that is given to you, there is only so much you can do with it.”

Diana examined power distances in greater detail in her interview. She stated “I think that often times when there are power distances and those power constructs with these two people, it can be very difficult to navigate.” She clarified from her own experiences, “My experiences as a woman instructor teaching juxtaposed to a man teaching was a really weird place to navigate.” Being placed in a position with less power than her counterpart made Diana exert large amounts of energy that left her exhausted by the end of her co-teaching experience. She stated co-teaching is “actually so much more emotional and intellectual labor to cater your own identity to [your partner’s] identity.”

In the interview with Lillian, who co-taught with another GTA, conversations of power distance were absent. In contrast, Diana and Peter posited their co-teaching experiences would have been different had they instructed alongside another GTA. For example, Peter believed that co-teaching between GTAs would have proven beneficial because GTAs have similar levels of autonomy and experience. He stated, “Both are students, and both don’t have that much experience. In a sense, you have the same mentality, the same type of preparation style, and understand the balancing issue.” This fits with my co-teaching experience with a fellow GTA, in which power was equal. There were moments when conflict would arise or one would refute the other’s idea, yet these conversations are bound to happen during a collaborative teaching experience. Rather than simply telling my partner that one approach works better than another approach, we would collaboratively weigh the pros and cons to find the best approach to implement in the classroom. When GTAs were paired with veteran instructors, they experienced moments where they were told the right approach from the wrong approach with little collaboration involved in the process. These power differences did not arise when GTAs were paired together.

Lack of familiarity with co-teaching approaches. All three participants interviewed claimed to have had no formal knowledge of co-teaching before engaging in a co-teaching experience. In some instances, interviewees claimed that this lack of knowledge put them in inferior positions. For example, Diana defined her first co-teaching experience as “working for somebody who has higher teaching experience than you.” Her explanation of this phenomenon was certainly shaped by her co-teaching experience with a male professor, who held both legitimate and societal power.

Participants perceived their lack of knowledge about co-teaching was due to limited opportunities for GTAs, and they attributed the lack of opportunities to societal expectations. Lillian asserted, “We assume within the society that we live in that we have to have someone with experience before they get involved in this project.” Lillian’s comment illustrates the assumption that co-teaching partnerships must involve a co-teaching partner with experience in order to be viewed as effective. While co-teaching with a veteran instructor can be helpful in the professional growth of a GTA, Lillian believed the process can be implemented with two GTAs and does not require experienced instructors. Diana felt similar regarding the societal influences keeping GTAs from engaging in co-teaching experiences. She states, “I think there is this assumption that [GTAs] need more time to develop our specific concentrations and what we’re good at.” She found being limited to basic courses did not allow for personal growth as an instructor or researcher, yet her co-teaching experience opened her up to the opportunity to teach higher level material to upper-level students.

Discussion

The data analyzed for this study offered perspectives on the benefits and challenges of GTAs co-teaching in university settings. Specifically, the findings suggest the need to consider the potential of co-teaching

as a tool to encourage reflexivity, to increase opportunities for student retention, and to implement co-teaching as a training model for GTAs.

Co-Teaching as a Tool to Encourage Reflexivity

Results of this study suggest that co-teaching may encourage reflexivity for instructors in terms of personal examination and mentoring, and reflexivity has been shown to be an important part of GTA training in previous research (e.g., Fong, Gilmore, Pinder-Grover, & Hatcher, 2017). Fong et al. posit that “reflection is often one part of the cyclical learning process that includes learning new instructional strategies through class activities and discussion, implementing those practices within one’s teaching, and reflecting on effectiveness following implementation” (p. 4).

Participants in this study indicated the potential for co-teaching as a tool for encouraging self-reflection in their teaching methodology. For example, the GTAs interviewed often found that their individual teaching skills served as a successful teaching model for their partner, and vice versa. In other words, if a teacher lacked skills in a potential area of instruction, the opportunity to observe such skills used by a co-teaching partner helped that teacher to grow, and perhaps to mirror such skills. This is consistent with previous findings (Walters & Misra, 2013). Additionally, while it is common for GTAs to receive feedback on their instructional skills by a supervisor, typically GTAs are not observed more than once. Co-teaching allows for consistent observations; both partners observe each other in every class period, providing the opportunity for frequent feedback. Furthermore, this encourages continuous reflection upon one’s teaching practices along with the platform to try new things. At its core, co-teaching fosters reflexivity in instructional approaches, allowing growth at both personal and professional levels.

For the participants in this study, the co-teaching relationship also offered an avenue for mentorship with an experienced faculty member or co-teaching partner that encouraged examination of their teaching approaches as they navigated the classroom. In other words, the co-teaching partner not only provided an opportunity for *observation* of a different teaching style, but an opportunity for *mentorship*. The nature of the co-teaching partnership allows for a mentor to be there at one’s side throughout an entire semester or year, providing a consistent partner from whom to seek advice. GTAs in this study noted the increased opportunity to seek advice from their co-teaching partner; this allowed for different perspectives and approaches to be offered within the classroom. For example, when one of the GTAs noticed a problem in the classroom, he was able to seek advice from his co-teaching partner on how to resolve the problem. In such instances, co-teachers utilized collaborative teaching approaches to examine the best practices for navigating difficult situations. As found in previous studies (e.g. Bacharach, Heck, & Dahlberg, 2008; Thousand, Villa, & Nevin, 2014) and in this study, working with a co-teaching partner encourages reflexivity as the instructors examine their weaknesses in the classroom, propose new ideas to handle a variety of situations, and examine their own instructional practices.

Co-teaching provides a unique opportunity as a tool for reflexivity because there is an element of reflection embedded into the course design. Instructors likely experience growth on personal and professional levels, and co-teaching allows for mentorship between teaching partners that may contribute to an enhanced learning environment.

Increased Opportunities for Student Retention

Research shows that a student’s experience in the social and academic sphere of college has a direct impact on student dropout rates or voluntary withdrawal from an educational institution (Tinto, 1975). Such research conveys the significance of finding ways to enhance students’ experiences. The results of this study suggested that co-teaching has the potential to help enhance students’ experiences in college, and ultimately may boost retention rates.

One way in which to increase student retention is by building rapport with students (Glazier, 2016; Gurland & Grolnick, 2008). The GTAs interviewed in this study discussed their ability to build strong rapport with students due to their similarities with undergraduates. They argued that GTAs are often younger instructors, having experienced their undergraduate careers more recently than university professors. Being aware of the struggles of undergraduate students, GTAs in this study offered perspectives to their students in a different way than an experienced instructor could. GTAs in co-teaching partnerships may be able to capitalize on this ability to relate to students even more. In addition, since there are two instructors present, they have the opportunity to display the rapport that they have with each other, which likely fosters a positive classroom environment and strong rapport with students. Glazier (2016) states the importance of rapport building for retaining students, noting that high-rapport relationships between instructor and student are a key factor in student success. Thus, rapport building acts as an instructor-driven action that improves student retention rates and enhances grades.

In addition to rapport, instructor approachability is important in helping to retain students (Glazier, 2016; Benson, Cohen, & Buskist, 2005). Findings of this study revealed instructor approachability as a benefit of co-teaching. Consistent with the findings of previous research (e.g., Diana Jr., 2014), co-teaching instructors in this study found that students were more willing to approach them with questions or seek clarification because

they would often establish positive relationships. This is partly a matter of numbers. Due to the decreased teacher-to-student ratio, co-teaching provides the opportunity for stronger development of student-teacher relationships. For example, one of the GTAs interviewed in this study noticed that she would be approached by female students that were uncomfortable seeking help from her male co-teaching partner. Because there are two teachers involved, the co-teaching classroom offers an increased opportunity for students to seek help from an instructor they find to be less intimidating, more immediate, or more understanding. In other words, in co-teaching classrooms, the likelihood of students seeking help from an instructor they view as approachable is high, and because of the relationship between approachable instructors and student retention in research, there is increased potential for student retention in co-teaching classrooms.

Co-teaching as a Training Model

Findings of this study suggest that exploration of co-teaching as a training model is warranted, but caution must be taken when considering power differences and GTAs' lack of pedagogical knowledge. Two of the participants in this study who had experience co-teaching with distinguished faculty members reported concerns about power distance in their co-teaching relationships. This is not an uncommon phenomenon in co-teaching partnerships that involve novice and veteran instructors (Walters & Misra, 2013). The findings of previous research and the current study suggest that co-teaching partnerships between two individuals with equal levels of power and decision making may be more beneficial. This is partly because the GTAs in this study claimed that their faculty partner had little to no interest in the collaborative aspect of co-teaching. At the very least, this implies that caution should be taken when placing a GTA with an experienced faculty member, because the benefits of co-teaching may not be experienced in situations where a faculty member does not view co-teaching as collaborative. This aligns with previous research, which noted that for co-teaching to be effective, collaborative models require that faculty be reflexive about power differentials between themselves and students, and responsive to the concerns of GTAs (Cordner, Klein, & Baiocchi, 2012).

While the GTAs viewed power differentials in their co-teaching partnerships as potentially problematic, they were equally as likely to feel unprepared because they lacked the proper knowledge surrounding pedagogy and/or the implementation of co-teaching models. Thus, schools must proceed with caution when pairing two novice GTAs. However, there is still merit in implementing co-teaching as a training model in higher education. As discussed by the GTAs in this study, co-teaching allows instructors access to mentorship, opportunities to observe one another, and reflexive practices in their pedagogical approaches that contribute to instructor growth. In addition, Plank (2011) finds that there is a "messiness" involved in co-teaching that requires partners to navigate their approaches to teaching in different ways than they would on their own. While participants in this study labeled lack of familiarity with co-teaching models a drawback, previous research argues that lack of familiarity contributes to the constant transformation associated with learning the facets of co-teaching models (Plank, 2011; Ploessl, Rock, Schoenfeld, & Blanks, 2010). In other words, one way to navigate the "messiness" associated with co-teaching is to illustrate the importance of process as it leads to instructor growth and increased comfort in examining different instructional approaches.

Graduate programs should consider the possibility of incorporating co-teaching models into their graduate teacher training and instructor development processes (Shostak, Girouard, Cunningham, & Cadge, 2010). Wider spread implementation of co-teaching courses with GTAs has the potential to enhance the professional development of GTAs and increase the quality of academic excellence at an institutional level. Walters and Misra (2013) noted, "Co-teaching for one semester should give graduate students the opportunity to place emphasis on necessary and practical teaching skills to better prepare themselves for independently instructing a course" (p. 300). Co-teaching relationships offer graduate students the potential of enriched academic careers, in addition to offering faculty and undergraduate student benefits from the collaborative teaching experience.

A number of implications can be drawn from the results of this study. First, co-teaching appears to encourage reflexivity. In addition, if implemented well, co-teaching may present opportunities for increased student retention and enhanced student learning. Finally, power differences and lack of content and pedagogy knowledge by new GTAs must be considered when utilizing co-teaching as a training model for GTAs.

Limitations

This study had limitations that may have influenced the results. One of the limitations was the small sample size. Because GTAs have very limited co-teaching opportunities, it was difficult to find interviewees for the study. However, the GTAs interviewed did offer different perspectives due to their diversity in gender and ethnicity. Another limitation is the limited scope of the study. This study gathered the perspectives of GTAs to fill a gap in the literature on co-teaching. However, it is imperative to gather the perspectives of students in classrooms with GTAs as co-teachers.

Future research

In addition to using a larger sample, future research should examine student perceptions and the impact of co-teaching on student learning. Scholars could examine how the gender, race, and/or experience level of co-teaching instructors influence student perceptions of affective and cognitive learning, for example. Although identity was mentioned by participants in this study, instructor identity was not examined in depth as a factor that contributes to student learning outcomes in co-teaching classrooms.

Additionally, an important variable that emerged from the data was instructor approachability, which relates to immediacy. To understand the impact of instructor approachability on a larger scale, future research could examine verbal and nonverbal immediacy behaviors between co-teaching partners while in and outside of the classroom. This information could be utilized to assess the effects of immediacy use between co-teaching partners on student affective learning.

Future research may also address co-teaching models as a possible avenue for GTA retention and pursuit of degree completion. The retention of GTAs may be partially contingent on the success they experience in their first years of instruction. If training for their graduate assistantship did not provide a valuable foundation for instructional gain, GTAs may choose to end their teaching careers.

Finally, while research on the benefits of co-teaching for GTAs is valuable, it would be even more valuable to use the findings of this study and others on co-teaching to design and implement a training program for teaching assistants. This research is valuable for the personal and professional development of GTAs, but the actual implementation of such models would allow for the benefits to be experienced by students and university departments as well.

Conclusion

The findings of this study suggest that co-teaching offers training opportunities for GTAs that traditional approaches do not. Because of the opportunities for continuous observation and mentoring, GTAs who co-teach are likely more reflexive about their teaching and more conscious of their pedagogical choices. This ultimately benefits students and universities because of the likelihood for enhanced student learning and higher retention rates. However, to be truly effective, co-teaching classrooms must take into account power differentials between co-teachers, and be designed with intention, paying particular attention to the collaborative nature of co-teaching.

Declaration of Interest Statement

We have no conflicts of interest to disclose.

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