Elementary and Special Education Pre-service Teachers' Understandings of Collaboration and Co-teaching

Audra Parker, Ph.D.
Patricia Alvarez McHatton, Ph.D.
Diedre D. Allen, M.A
University of South Florida

Abstract

In the current education context (IDEIA, 2004; NCLB, 2003), many K-12 schools are using collaborative models such as co-teaching to address the needs of all learners, but pre-service teachers are often inadequately prepared for collaborative teaching in inclusive classrooms. This study explored 46 elementary and special education pre-service teachers' constructions of collaboration and co-teaching as they partnered for a combined classroom management course and a field experience. Analyses of student reflections suggest two overarching themes: developing understanding of the complexities of co-teaching and the role of field experiences in connecting theory to practice.

The contents of this manuscript were developed under a grant from the US Department of Education, Cooperative Agreement #H325TH325T070022. However, those contents do not necessarily represent the policy of the US Department of Education, and you should not assume endorsement by the Federal Government. Project Officer, Tina Diamond.

With federal legislation (IDEA, 2004; NCLB, 2003) requiring increased access to the general education curriculum for all students, children with disabilities are spending a larger portion of their day in general education settings. In fact, 79% of students with disabilities spend

40% or more of the school day in general education classrooms (National Center for Education Statistics, 2008). Part of the IDEA mandate includes incorporating Response to Intervention (RTI) as a framework for providing early intervention for all students experiencing academic and behavioral challenges in general education classrooms (Pierangelo & Giuliani, 2008). The confluence of these initiatives has led to an increased presence of students with widely varying academic and behavioral skills in K-12 general education classrooms (Pierangelo & Giuliani, 2008). This trend towards access to the general education curriculum for all students is occurring in the context of a high stakes, standards-based movement with increased focus on teacher accountability (Brownell, Sindelar, Kiely, & Danielson, 2010).

As implementation of these current reforms moves forward, the roles of general educators and special educators are being redefined, with an emphasis placed on increased collaboration to ensure positive outcomes for all learners in the general education setting (President's Commission on Excellence in Special Education 2002; Brownell, et al., 2010). Ultimately, general and special educators are now working more frequently in a shared space, the inclusive K-12 general education classroom. In this context, general education teachers must provide effective instruction for a wider range of learner needs in their classrooms, while special educators are spending more time delivering services (either direct instruction or through collaboration with general education) within general education classrooms and less time in self-contained environments (Mastropieri, Scruggs, Graetz, Norland, Gardizi, & McDuffie, 2005).

The move towards increased teacher collaboration in K-12 classrooms necessitates that colleges of education refocus on the preparation of both general and special education pre-service teachers who are able to work collaboratively upon entering the profession (Brownell, at al., 2010; Kamens, 2007; Shippen, Crites, Houchins, Ramsey, & Simon, 2005; Van Laarhoven,

Munk, Lynch, Bosma, & Rouse, 2006). The preparation of general and special education pre-service teachers is at a crossroads and moves toward collaborative teacher education are on the rise with many of these efforts resulting in dual endorsement programs (Pugach & Blanton, 2011). Pugach and Blanton note, "beyond the generally agreed-on belief that collaboration between general education and special education is a good direction in which to take teacher education, what is really going on in the name of these multiple collaborative pre-service education efforts does not appear to be well understood" (2011, p. 181).

The purpose of this study is to address recent calls to re-vision and understand collaborative teacher preparation for working with students with disabilities in the current educational context (Brownell, et al., 2010; Pugach & Blanton, 2011). In this paper, we describe the outcomes of a joint venture between faculty in a Department of Elementary Education and a Department of Special Education to foster collaboration among pre-service general and special education teachers. Specifically, we explore elementary and special education pre-service teachers' developing constructions of collaboration and specifically co-teaching as they participated in a combined management course and linked field experience.

A Review of Collaboration and Co-Teaching

Teacher Collaboration

Collaboration is defined by Boudah, Schumaker, and Deshler (1997) as an "educational approach in which general and special educators work in a coactive and coordinated fashion to jointly reach academically and behaviorally heterogeneous groups of students in educationally integrated settings" (p. 18). This requires individuals who are willing to actively develop the necessary knowledge, skills, and attitudes that foster a collaborative partnership. Effective

collaboration allows participants to achieve common goals and is dependent on open communication, positive attitudes towards the collaborative relationship, and an assured perception that collaboration is a beneficial educational approach.

The need for collaboration is evident as The Study on Personnel Needs in Special Education (SPeNSE, 2001) found that 96% of general education teachers had previously or were currently teaching students with disabilities. Collaboration among general and special educators can be a critical factor in general education teachers' perceptions of their abilities to work with students with disabilities in inclusive classrooms. Although most felt successful, their sense of self-efficacy increased based on the level of support they received from and their relationship with special education teachers (SPeNSE, 2001). Similarly, Silverman (2003) asserted that in addition to teachers' beliefs in the abilities of students with disabilities and their teaching efficacy to work with these students, a conviction in the role of special educators as a vital collaborators in teaching all students was a third critical indicator in general education teachers' support for inclusion.

The nature of the collaboration between general and special educators is also shifting as a result of the increased role of RtI in K-12 schools and the varying interpretations of the role of special educators within RtI. Fuchs, Fuchs, and Stecker (2010) describe the current debate between those who support an RtI model in which the most intensive tiers include current special education programs and those who believe RtI should blur the lines of general and special education to the point that resource and self-contained classrooms are eliminated. Supporters of the latter envision K-12 settings in which special educators take up "residence in regular classrooms to co-teach with general educators; tutor small groups of at-risk children in classrooms, hallways, conference rooms, and libraries; and become members of problem solving

teams to develop individualized programs for the most difficult-to-teach, chronically unresponsive children (p. 306). ” To date, there is no clear picture of how collaboration between general educators and special educators will look in the context of RtI, and its enactment in K-12 settings varies greatly.

Efforts to prepare general and special education pre-service teachers for the changing nature of collaboration in K-12 settings are necessary. Pugach and Blanton (2011) describe current efforts in higher education as falling into one of three dominant practices: a growing number of programs leading to dual licensure, increased collaborative program development as a result of the Office of Special Education Programs (OSEP) 325T grants, or collaborative activities in pre-service preparation when there is not dual licensure in place. What is not known is how effective these practices are in preparing pre-service teachers for collaboration and inclusion.

Co-teaching as Collaboration

One form of collaboration among general and special education teachers in inclusive K-12 settings is co-teaching (McKenzie, 2009). Co-teaching is when “…two or more professionals jointly deliver substantive instruction to a diverse, or blended, group of students in a single physical space” (Cook & Friend, 1995, p. 1). Weiss and Brigham (2000) found that tremendous variety exists in terms of how co-teaching was enacted in K-12 classrooms. This may be due, in part, to the range of co-teaching models used in K-12 classrooms including one teach/one assist, station teaching, parallel teaching, alternative teaching, and team teaching (Friend & Cook, 2009).

Research indicates that the preferred implementation of co-teaching is through models

that maximize the skill sets of both general and special educators (Scruggs, Mastropieri, & McDuffie, 2007). These models were identified as more effective than models such as one-teach/one assist, which if used inappropriately, cast the special educator in an assisting, subordinate role (Buckley, 2005; Rice & Zigmond, 2000; Dieker & Murawski, 2003; Scruggs et al., 2007). For example, special education teachers in one-teach/one assist models typically reported taking the lead in behavior management, monitoring, and observing while the general education teacher was largely responsible for instruction of content (Buckley, 2005; Rice & Zigmond, 2000; Weiss & Brigham, 2000; Yoder, 2000). This distinction inadvertently created discrepancies between the teachers' power levels and drew attention to the differences in students with and without disabilities (Scruggs et al, 2007). Yet, despite this knowledge, the one teach/one assist model remains the most prevalent form of co-teaching in inclusive classrooms (Scruggs et al., 2007).

Reports of general and special education teachers' experiences in co-teaching partnerships are highly contextualized and as such the research findings are mixed. General and special education teachers self-reported positive attitudes towards co-teaching, particularly as it related to their professional development (Austin, 2001; Fennick & Liddy, 2001; Scruggs, et al., 2007). Specifically, Austin (2001) found that general education teachers noted improved management and curriculum accommodation skills, while special education teachers noted increases in their content knowledge as a result of co-teaching experiences. In contrast, teachers readily identified a variety of pervasive school-based factors that made collaborative and co-teaching difficult. These include a lack of common planning time, personal and professional compatibility issues, lack of role clarity, issues with protection of turf, scheduling difficulties, and funding concerns (Dieker & Murawski, 2003; Fennick & Liddy, 2001; Kames, Loprete, &

Slostad, 2000; Rice & Zigmond, 2000; Weiss, 2004 Yoder, 2000). Research suggests teachers' experiences with co-teaching could be mediated by effective training, on-going professional development, and administrative support, but the presence of these components varied greatly across school contexts (Buckley, 2005; Rice & Zigmond, 2000; Yoder, 2000).

The literature indicates exposure to disabilities, opportunities to work with students with disabilities, and an emphasis on collaboration at the pre-service level may ameliorate in-service teacher anxieties and challenges towards inclusion and co-teaching (Giangreco, Edelman, & Dennis, 1991 as cited by Shade & Steward, 2001; Shippen, et al., 2005). Furthermore, field experiences, particularly those undertaken together with peers in general and special education, may have a profound and positive impact on pre-service teachers developing conceptions of co-teaching and inclusion (Austin, 2001, Van Laarhoven, et al., 2007). Yet Griffen and colleagues (2006) reported that exposure to collaboration at the pre-service level is quite limited with less than 50% of special education and less than 33% of general education majors experiencing course content related to collaboration in the teacher preparation coursework. This may be due in part to the fact that there is great heterogeneity in teacher preparation for work with students with disabilities (Goe, 2006). While there are individual efforts within teacher preparation programs for collaboration and co-teaching through a variety of methods including dual endorsement programs, most preparation for collaboration and co-teaching through dual endorsement programs, most efforts remains fragmented, and general education pre-service teachers report feeling unprepared for working with students with disabilities (Fennick & Liddy, 2001; Welch, 1996).

Given the likelihood general and special education teachers will at some point in their careers find themselves in a co-teaching partnership in K-12 settings, researchers assert a more

aggressive approach is needed for preparing general and special educators for collaboration (Arthaud, Aram, Breck, Doelling, & Bushrow, 2007; Pugach & Blanton, 2009; Shippen et.al., 2005; Snyder, 1999). Our research is in response to the need to purposefully prepare pre-service teachers for collaborative settings and study these outcomes (Brownell et al., 2010; Pugach & Blanton, 2011). In the sections that follow we describe our effort to prepare general and special education pre-service teachers for the co-teaching partnerships they are likely to enter upon induction into teaching and the subsequent outcomes of these experiences on their understandings of collaboration and co-teaching.

Method

Context

The context for this research is a large, urban university in a major metropolitan city in the southeast. Recognizing the importance of early exposure to inclusion and co-teaching for pre-service teachers, faculty in the Department of Special Education and the Department of Elementary Education at one college of education conceptualized a cross-departmental collaborative experience between pre-service teachers in their respective programs. A project team consisting of two faculty (one from each department) and two support graduate assistants (one from each department) formed to explore collaborative and co-teaching possibilities.

We designed the final project around two key features: our co-teaching of a joint classroom management course with a linked field experience from the respective programs at a common time, and the formation of co-teaching partnerships for the elementary and special education pre-service teachers. In an attempt to have curricular coherence within these two features, we met prior to the beginning of the semester to develop the syllabi for both the course and field experience. Pre-service teachers from the two majors were combined during

management course instruction into one classroom co-taught by the two lead faculty. We identified and used instructional methods and co-teaching structures (Friend & Cook, 2009) that demonstrated the use of collaborative practices which allowed us to scaffold pre-service teachers' experiences in co-teaching in a common learning space—the university setting.

Co-teaching partners (one special education and one elementary education pre-service teacher) were placed together for a field experience in inclusive elementary (K-5) classrooms. This provided general education students opportunities to work with students with disabilities. It also created a forum for acknowledging the expertise that each major brought to the field experience: elementary educators' knowledge of curricular and management techniques and special educators' knowledge of specific strategies and interventions. Finally, we purposefully embedded a field component linked with the management course to create opportunities for pre-service teachers' to co-construct theory-to-practice connections in terms of behavior management, instructional planning, inclusion, and co-teaching.

The Collaborative Project

The co-teaching project began in Spring 2009. Our initial class meetings were a series of day-long introductory seminars. For the first two weeks these seminar meeting days mirrored the days that the pre-service teachers would spend in elementary classrooms for the remainder of the semester. The purpose of these initial seminars was to provide time for the two cohorts of pre-service teachers to get to know each other and the faculty via team-building and goal setting activities and to assess initial understandings of co-teaching and inclusion. During these seminars faculty introduced the project and the concept of co-teaching using research literature and video-based activities.

On Wednesday evenings all of the pre-service general and special education students came together for the 3-hour classroom management course co-taught by the two faculty members on the project team. Weekly course topics included classroom management, Positive Behavior Supports, instructional planning, differentiated instruction, co-teaching, Response to Intervention, and students with disabilities. The model of teaching most frequently used by the faculty was team teaching; however we also used station teaching, parallel teaching, and alternative teaching (Cook & Friend, 1995). On several occasions, we divided the class by major (elementary or special education) to address assignments or course objectives specific to the two distinct groups.

Pre-service teachers from both majors began their field experiences at local elementary schools during the third week of the semester. These elementary schools volunteered for participation in the co-teaching project; however this did not necessarily mean they were exemplars of collaboration. Rather, these schools expressed interest by responding to an invitation from the district to participate in the project. The district pre-selected these schools for several reasons, including the fact that they had a number of appropriately credentialed teachers able to serve as supervisors and there was some indication that co-teaching was being implemented with some success in these settings. It is important to note that due to programmatic differences, the special education majors were in the field experience two days a week (Monday and Tuesday) and the elementary education majors were in the field one day a week (Tuesdays).

The nature of the field placements varied greatly as a result of the availability of classrooms that were labeled inclusive at the participating elementary schools. Although the original intention was to place all co-teaching partnerships in elementary classrooms where they would interact for some portion of the school day, this did not come to fruition. As a result, some

pairs were in full-day inclusive settings where the special education and elementary education majors spent the entire school day together in one general education classroom. In other situations, the special education partner visited the elementary education major's classroom for a portion of the day—ranging from 30 minutes to several hours. Finally, a few of the co-teaching partners were in the same school, but not in the same classroom. The special education major was in a self-contained special education classroom and the elementary education major was in a general education classroom. This was due to a lack of credentialed special education teachers in one particular setting. As a result, these pairs did not interact in the same classroom at any point during the school day. All of the partnerships were randomly created based on the geographic preferences of the students for their field experience.

Regardless of the nature of their placement, all co-teaching pairs were initially required to make arrangements to plan and teach three lessons together. As the semester progressed, it became clear this was not feasible for several pairs, and both the special education and general education pre-service teachers were allowed to co-teach with their supervising teacher or another pre-service teacher in their program in lieu of the original expectation (authors, 2010). As such, they experienced 'co-teaching' in the field experience in a different sense than originally intended. Finally, all of the pre-service teachers attended three one-hour seminars spread throughout the semester to debrief their overall experiences.

Participants

A total of 58 pre-service teachers, 33 elementary education majors and 25 special education majors, enrolled in the course and linked field experience. Of these 46 pre-service teachers (21 elementary education majors and 25 special education majors) consented to

participate in the study. These were typical-aged students and were representative of the demographics of pre-service teacher education students.

The elementary education majors were part of a large K-6 certification program that enrolls approximately 100 new students each semester. For most, this was their first semester in the program and their first field experience. However they did not follow a structured course sequence as they progressed through the program. The elementary education majors took courses at various paces (part-time/full-time) and multiple sections of each course were offered each semester. For this project they were all registered for a Level 1 (first) field experience and a classroom management course. These two were purposefully linked for this project.

In contrast, the special education majors progressed through their certification program as a single cohort that formed during the fall semester prior to the project's implementation in January. These special education students took all of their courses together and followed a structured course sequence. Upon graduation, the special education majors were eligible for certification to work with students who have mild and moderate disabilities in grades K-12. For this project, they were all registered for a linked course and field experience, their second, which required them to be in K-5 schools two consecutive days per week.

Data Collection

The data presented in this paper are one facet of a larger study examining elementary and special education pre-service teachers' perceptions toward inclusion, co-teaching, and collaboration. For this particular aspect of the study, data included reflective statements collected across one semester in the co-teaching project previously described. As part of a regular course assignment, participants electronically submitted weekly reflective investigations describing their experiences with an assigned topic that intersected both the course and field experience.

Fifteen reflections were completed in all. No length minimums were established. Participants also posted two follow-up responses to their peers' reflective investigations each week. These follow-up responses were intended to extend the conversation about the assigned topic for the week. The reflective investigations prompted students to consider a variety of specific topics, including classroom context, management systems, standardized testing, and parent involvement. Two of these reflective investigation topics (Week 3 and Week 15) overtly directed students to discuss their experiences with and perceptions of co-teaching.

Data Analysis

Analysis of the data consisted of thematic analysis as described by Fereday and Muir-Cochrane (2006). All of the reflective responses from the participants were included for analysis. Through an iterative process consisting of multiple readings, codes were identified. The reflections were first independently read and coded manually. We met to review the results of the first iterative process and reach consensus on any discrepancies. Codes were then categorized based on common elements. We employed several of the quality indicators identified by Brantlinger, Jimenez, Klingner, Pugach, and Richardson (2005) that increase credibility of qualitative research. Investigator triangulation was achieved as four researchers worked together to analyze the data. Our collaborative work allowed us to ensure inter-rater reliability through independent coding following by peer debriefings in order to reach consensus. Finally, the semester-long field experience and data collected over time provided opportunities to obtain substantive information allowing for the presentation of findings such that readers are able to determine the extent to which findings are applicable to their degree of transferability to their own setting (Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005).

Results

Data analyses suggest two broad categories emerged from the elementary and special education teacher reflections: 1) developing understanding of co-teaching as a complex construct and the 2) role of the field experience as essential in shaping their perceptions of co-teaching. The findings are reported using direct quotes from the reflective statements of pre-service teachers in both elementary and special education.

Developing Understandings of Co-Teaching as a Complex Construct

One category emerging from the data was the sense that pre-service teachers were grappling with a developing understanding of the complexities of co-teaching as a result of their experiences as students in a college classroom, as observers in a field placement, and as teachers in a K-5 classroom. This category included the codes initial conceptions, varied models, parity, lack of parity, perceived benefits, and potential hurdles. Of particular importance in their developing understandings was the wide array of co-teaching partnerships they were observing and experiencing. The vast majority of partners described their supervising teachers as relying heavily on the one teach (general education) and one assist (special education) model. The second most frequently described model was parallel teaching with the general education teacher working with the larger group and the special education teacher working with a small group of students with disabilities at a table in the same classroom.

Initial conceptions. Reflections indicate that many of the pre-service teachers from both majors had limited, if any understanding of co-teaching at the beginning of the project. For example, pre-service teachers from both majors expressed uncertainty or described misconceptions regarding the practice of co-teaching. They used words such as “apprehensive,” “a bit unsure,” “never heard of it,” and “anxious” to describe their initial feelings about co-

teaching. One elementary education major stated, " I am very skeptical to have someone always near me or observing me when I teach." A special education major noted concerns that "co-teaching might take away from the teacher having the main control and power." The initial reflections also revealed the pre-service teachers' misconceptions regarding co-teaching. Several elementary majors noted that they thought the role of special educators was solely pulling "only children that needed special help" from the general education setting for resource time. Similarly, a special education major wrote, "I was unaware that general education teachers and special educators collaborated in a classroom together…I was unaware that I could end up a "floater" or "co-teacher". Interestingly, while the elementary education teachers described what they thought the role of special educators was in K-5 classrooms none of the special education majors stated the anticipated role of elementary educators in co-teaching.

Both general and special education pre-service teachers entered the project with the understanding of the teacher as a solitary figure working in isolation in her own classroom. Their initial reflections reveal their grappling with the assimilation of a new construct, co-teaching, into their existing understanding of what it meant to be a 'teacher.' In addition, the field experience provided a valuable 'real world' setting for the pre-service teachers to further consider what co-teaching looked like in practice. This suggests that participation in a structured co-teaching experience at the very least raised awareness about the construct.

Parity. The pre-service teachers' developing perceptions of effective co-teaching was also a result of the varying degrees of collaboration they observed in K-5 classrooms. Teacher parity, the equality of classroom roles and the supportive relationship exhibited in their interactions, was visible to the pre-service teachers in the way supervising teachers demonstrated

joint ownership of the classroom, students, and the overall planning. An elementary major, describing an example of teacher parity, wrote:

> When I first got in my classroom, I didn't even know which teacher was the Elementary teacher and which was the Special Education teacher. I had to ask. The students acknowledge them both as teachers, and they both work equally as much with the students.

The reflective statements were replete with examples of parity. One pre-service teacher in illustrating support stated, "These two teachers tag team the students on discipline and behavior to make all students accountable for their behaviors. When one teacher is unsure about something she consults the other for her input on what to do or vice versa." Several participants described how supervising teachers modeled the sharing of space, students and tasks. For example one pre-service teacher wrote, "Both teachers in this room share the instruction and plan lessons together, it is very cohesive." Another noted, "Also throughout the day especially during the reading the teachers each have a small group that they work with and the groups constantly rotate so that a teacher meets with all of them."

For pre-service teachers from both majors, parity was described via examples of positive communication skills, agreement of tasks, collaborative planning and acknowledgement of each other within the context of the classroom. Their reflections revealed they were able to see parity when manifested in ideal partnerships on a co-teaching continuum; however, they did not readily recognize parity in settings that were less than perfect.

Lack of parity. On the other end of the spectrum, a number of pre-service teachers described dysfunctional co-teaching partnerships with inequality in teacher roles (i.e., general education versus special education supervising teachers). This lack of parity was reflected in pre-

service teachers' comments indicating that their supervising teachers engaged in tasks in a separate fashion, unaware of each other, which often resulted in power differentials within the classroom. One pre-service teacher summarized lack of parity when she indicated, "I don't really see much co-teaching taking place in my 4th grade classroom with Mr. X. Miss Y is the ESE professional that comes in to work with some of the students but it's more of a one-on-one basis." Another described her experience as follows:

> My only experience with co-teaching thus far in my internship has been a loose rendition of the one teach/one assist model. Mrs. Z (general education) teaches the majority of the subjects…Mrs. C (special education) comes in every other day or so to make sure the fuse is successful...To me, co-teaching implies shared effort, shared responsibility, shared goals. I feel like sitting at one's desk, grading papers while Mrs. C teaches a lesson is like cheating—it cheats the students.

In addition to separation of tasks, lack of parity also included power differentials, preparation and planning time, tension and contextual factors. For example one pre-service teacher, when describing the relationship between the two supervising teachers, related, "She usually comes in about three or four times during the day and works with her students. I don't think that the two teachers have the best relationship." Several pre-service teachers described difficulties in how special education teachers were scheduled to provide services as contributing to the lack of parity. One noted, "The ESE teacher hops back and forth from our room to the other 4th grade room next door." Yet another stated, "It is so confusing with the ESE teacher [going] back and forth [from classroom to classroom]."

Both elementary education and special education pre-service teachers described scenarios in which the in-service co-teachers teachers functioned separately and/or at varying levels of

perceived power in the classroom. Their reflective statements varied as to what they felt attributed to the lack of parity. In some instances they noted the existing school structures such as case load and administrative demands, while in others incompatibility of the partnerships and comfort levels of the co-teaching partners were to blame. The real-world context of the course and field experience allowed pre-service teachers to observe and identify instances in which co-teaching partnerships were not ideal.

Perceived benefits. During their experiences with co-teaching as students, observers, and teachers, the pre-service teachers from both majors noted student benefits in terms of academic, behavioral, and social skills. One participant illustrated student benefits by stating, "There is more opportunity for small group work and more intimate instruction." Another described co-teaching as a method that "enhances students learning because they have two different teachers with different perspectives, strategies, and outlooks." One pre-service teacher described one exemplary model of effective co-teaching explaining how the teachers in her room structured instruction so that each assumed responsibility for all students learning. She expressed:

> The students do not see the difference between the ESE students and the non-ESE students because the groups get switched up depending on subject and the ESE teacher does not just work with the ESE students for individual work.

Pre-service teachers from both majors included the benefits of co-teaching for the teachers. Typical comments included "the idea of strength in numbers," "two minds are better than one," and "like parenting—you have two sets of eyes." Indicative of these, one elementary education major noted, "You have a second person to support you in decisions, bounce ideas off of and help develop things you may not have been able to do on your own." The pre-service teachers also noted that co-teaching appeared to increase the variety of instructional approaches.

An elementary education major stated, “You feed off of each other’s ideas and concepts before, during and after a lesson.” Similarly, a special education major wrote, “Students will benefit from having two teachers in the classroom, each with different skills and areas of expertise.”

Part of pre-service teachers developing understandings of co-teaching was recognizing the potential benefits of collaboration with a colleague. They identified these benefits in terms of both the students and their professional development. This included a recognition that they could capitalize on the area of expertise that each individual teacher brought to the partnership. The course and field experience provided a real world opportunity for the pre-service teachers to observe and experience these benefits.

Potential hurdles. While the pre-service teachers’ reflections indicated largely positive perceptions of and experiences with co-teaching, the elementary and special education pre-service teachers also recognized concerns about co-teaching. With the exception of three pairs who were in full-day inclusion models, a primary concern was the quantity of time special educators spent in particular elementary classroom. An elementary major stated, “I think it would be best if there were two co-teachers in the room all day.” Another wrote, “The little time ESE teachers spend in one particular classroom…can make it difficult to establish quality co-teaching partnerships. Continuity and consistency are important.” Similarly, a special education major noted, “I think it is harder to grasp all of the concepts of co-teaching when you are only in each classroom for 30 minutes.” Another suggested, “ESE teachers should not have to be spread so thinly. It doesn’t make sense that they are supposed to co-teach with three different general education teachers.”

The pre-service teachers from both groups also identified the importance of fit and compatibility as critical elements in effective co-teaching experiences for both their partnerships

as well as those of their supervising teachers. One elementary education major observed, “I have heard it (co-teaching) is really a catastrophe when the teachers don’t get along.” In fact, many suggested that it was the most important component of successful co-teaching partnerships. An elementary education major stated, “My two supervising teachers worked so well together and had such great chemistry.” Another wrote, “My co-teaching partner and I got along extremely well, and I can’t imagine a better person with whom I could have shared this experience.” Another wrote, “Working together with her became such an asset. We would play off each other with ease and gain such positive responses with the students that came so naturally.” Finally, an elementary education major stated “you really need to have a partner that you get along with, someone who will support you, finish your thoughts if you are forgetting something, help you along the way…” A special education major noted that differences are not always problematic, “We have different teaching styles and different teaching backgrounds, but were able to use our differences to create a positive learning environment.” In many instances, the pre-service teachers described feeling “lucky” to have found a partner with whom they were compatible. Regardless, the pre-service teachers perceived compatibility as essential to a successful co-teaching partnership.

The Role of ‘Real World’ Experiences

A second category emerging from the data was the field as a vital context for pre-service teacher learning. This category included the codes theory-to-practice connections, developing understandings of special education, and opportunities for reciprocal learning.

Theory-to-practice. Regardless of major, the field component represented a real world context for the pre-service teachers to experiment with and apply what they learned at the university about co-teaching. In fact, they explicitly described the value of observing and

applying learning in a field-based setting, with many noting the connections and disconnects between university classroom learning and their field experiences. An elementary major stated, "There is so much that you can learn from actually being in the classroom and being able to do stuff rather than just observing behaviors." Another wrote, "I really feel like I learned so much through this internship that I definitely would not have gotten out of a class." A special education teacher summarized her experiences, "I was able to learn more in this semester spent in the classroom than I could have ever learned sitting in a lecture. I enjoyed the support that our class gave to our practicum setting, and found myself often times using what we learned [in the university classroom] in my classroom."

The variability of their field experiences and partnership structures appeared to impact the pre-service teachers' overall depth of understandings of co-teaching and the extent to which pre-service teachers embraced co-teaching. The enthusiasm was clearly strongest in the co-teaching pairs who were placed in classrooms where they were co-teaching for the majority, if not all, of the school day. One participant in such a partnership described the impact of her experience on her attitude towards collaboration:

I really like the experiences of co-teaching. I wasn't so sure about the concept at first but [I] am warming up to it. There is more opportunity for small group work and more intimate instruction. Both teachers in this room share instruction time and plan lessons together, it is very cohesive...from these experiences I have become a large supporter of co-teaching.

The experiences of participants who were placed in inclusive classrooms with less intensive and/or poorly functioning co-teaching environments exhibited attitudes ranging from tempered enthusiasm to disappointment. In many, they wrote as to how they hoped co-teaching to be more than what they observed. One pre-service teacher remarked,

When I first learned about co-teaching I wasn't very excited about it. Being in the classroom and seeing it in action has changed my mind a bit, I'm still not completely sold on the idea. From what I've seen, it serves more as a convenience than anything else.

Another admitted,

I want to believe in co-teaching but I haven't seen an example of it that has inspired me or made me think very highly of it. I spoke with my mentor teachers about their feeling about and experience with co-teaching, as well as how it has gone at their school and I was really disappointed with what I heard.

The nature of the collaboration and co-teaching occurring in the field experience setting was in shaping the pre-service teachers' attitudes and understandings. Pre-service teachers from both majors felt most strongly about co-teaching when it was enacted in a way that allowed time for highly compatible teachers to work together in a single classroom.

Supporting understandings of special education. The field experience also provided a context for pre-service teachers from both majors to acquire and practice the 'language' of special education. For example in our first course meeting, the issue of 'person-first' rather than 'disability-first' language emerged after one of the elementary education majors unknowingly used the phrase 'autistic child.' The ensuing conversation revealed the importance of recognizing the person first, rather than the disability, and represented an important first milestone in the collaboration between the general and special education pre-service teachers. This lesson carried over into their reflections on the field experience. In fact, in their course reflections, each of the elementary education majors wrote in person first language as did the special education majors.

Additionally, the elementary and special education majors adeptly used terms associated with special education (IEP, 504 plan, accommodations, modifications) in their reflections on the

field experience as they progressed through the semester. The pre-service teachers from both majors reflected with frequency during the field experiences on the importance of recognizing the 'uniqueness' of all learners—a concept emphasized throughout the university course. As one elementary education major noted, "I have learned that every child is different. What works for the majority of the children in the classroom does not work for ALL the children. In noticing this, it is necessary to make accommodations in all areas of a child's education." Similarly, a special education major wrote, "Regardless of the acronyms used to describe a child, that child still has the ability to learn, and it is our job as teachers to do our best no matter what." The pre-service teachers were also able to recognize and reflect on specific accommodations they observed in the field experience. One pre-service teacher noted, "The accommodations (in my classroom) include help with organizational strategies, small group direction and work, visual and verbal cues, direct instruction, more time completing assignments, more instructional time, manipulative use, pacing adjustments, proximity control, reminders of rules, and prompting."

The field provided an authentic context for pre-service teachers from both majors to acquire and practice professional language. For elementary majors, this included use of special education language in a real world setting. Simultaneously, special education majors were applying their specialized knowledge in the context of the general education classroom.

Reciprocal learning. The field experiences provided a context for a developing notion of reciprocal learning among both elementary and special education pre-service teachers. One elementary pre-service teacher reflected, "we all came to the table with different experiences, opinions, and plethora of information, and we were able to work together collaboratively..." Similarly, another elementary major reflected about her co-teaching partner, "We collaborated on all of our lessons and I learned a lot from her [special education partner]; she was always

willing to teach me new things." A special education pre-service teacher wrote, "I enjoyed having an elementary counterpart to work with and I benefitted from working with him as well."

In other words, an important realization for many of the participants was that their counterparts in inclusive classrooms have an expertise to share. The field experience provided a context for experiencing reciprocal learning across majors, which is also a critical component of co-teaching partnerships.

Conclusion

This study highlights the outcomes of our efforts to design collaborative activities for pre-service teachers in order to better prepare them for future partnership in K-12 classrooms. Elementary and special education pre-service teachers' reflections indicated developing understandings of the complexities of co-teaching as a result of their experience in this project. They applied course learning to field settings, recognized co-teaching structures, identified positive outcomes, and voiced concerns about potential hurdles. These findings support the existing literature that suggests exposure to co-teaching and inclusion prior to induction may positively shape pre-service teachers' developing conceptions (Giangreco, Edelman, & Dennis, 1991 as cited by Shade, Steward, 2001; Shippen, et al., 2005). The power of the field experience and the paired general and special education pre-service partnerships also appeared to inform their learning regarding co-teaching. The pre-service teachers in this study recognized the field experience as vital for making connections to course constructs including co-teaching, special education language and reciprocal learning. Their reflections lend voice to the research literature indicating the vital role of contextual field experience learning for strengthening pre-service teachers' understandings of co-teaching (Austin, 2001; Van Laarhoven, et al., 2007).

The results of this study yield several findings that advance the literature on co-teaching

and as such, warrant further interrogation. First, issues of parity or lack of parity seemed to be of utmost importance. This is not surprising considering most, if not all, initially viewed teaching as a solitary endeavor – one teacher in one classroom. Faced with having to share their classroom in this collaborative field experience, many questioned the possibility of losing their autonomy as *the* teacher. In many instances, the pre-service teachers identified 'successful' partnerships as those in which the two teachers worked simultaneously 'co-teaching' all students. In contrast, they characterized models such as one-teach/one-assist and consultation as inferior enactments of co-teaching. This left us to ponder to what extent did we predispose the pre-service to view these models as dichotomous. Did our weekly modeling of co-teaching hinder the students from seeing or valuing other models? Did it subtly give them permission to value only one form of collaboration? As teacher educator explore collaborative activities as a mechanism for preparing pre-service teachers for K-12 classrooms, a heightened awareness of the subtle messages we are sending about collaboration is essential. From our results, we suggest that perhaps we needed to do more to scaffold the pre-service teachers' understandings of all models of co-teaching and recognize why certain models may or may not be appropriate in K-5 classrooms at any given time. We needed to be more overt in our connections to what was happening in their field experiences. In fact the differences the pre-service teachers were observing exemplify the realities of how co-teaching is implemented in diverse ways in schools. By asking the pre-service teachers to critically examine issues of planning, scheduling, and implementation of a wide array of co-teaching models we would have developed a richer understanding of co-teaching.

Our results also highlight the critical importance of a quality field placement on pre-service teachers' professional development. Again, as teacher educators explore collaborative

activities in preparing elementary and special education teachers, connecting the university work to the field is essential. If we are truly trying to transform pre-service teacher learning, the nature and quality of the field experience matters (Kamens, Loprete, & Slostad, 2000). The context in which new teachers find themselves is also instrumental in the likelihood they will implement what they have learned (Kamens et al., 2000). As teacher educators we have less control of these contextual factors that may impede the extent to which neophyte teachers, either general education or special education, engage in collaboration or welcome students with disabilities in their classrooms. Teacher educators must be aware of contextual factors (e.g. lack of parity, lack of common planning time, scheduling difficulties, etc) that may support stereotypical views of the role of special educator and the relationships between general education and special education thus reaffirming existing negative attitudes towards collaboration. Explicit instruction on how to problem solve situations that may result in lack of parity is necessary at the pre-service level. Also as part of instruction pre-service teachers must understand that a positive effective collaborative relationship is not accidental but rather consciously constructed. In this regard skills that contribute to the development of positive relationships with others (e.g. communication, reflection, self-awareness, etc.) must be developed and practiced.

There are several limitations in this study. The pre-service teachers were working within our framework for co-teaching and within our desired structures for how it was to be enacted. Further they were responding to their perceptions of co-teaching in written reflections that they knew would be read by us, the course instructors. To what extent were the students writing based on what they thought that we wanted to hear? Also, given the frequency of reflecting required and the lack of specific guidelines for the reflections, the pre-service teachers' reflections became increasingly brief over time. We are left to wonder if there was more the students wanted

to (or could have) said about their experiences, but failed to do so. The limited data sources and the lack of more in-depth reflective assignments are a weakness that should be addressed in future research.

Despite the limitations, this study may resonate with teacher educators as it provides an example of how they might design collaborative activities to prepare pre-service teachers co-teaching, Furthermore, incorporation of collaborative activities is one of the three main approaches used currently in teacher education to prepare pre-service teachers for future collaboration (Pugach & Blanton, 2011). As a result understanding the impact of such experiences on pre-service teachers' understanding of co-teaching and collaboration is vital in furthering the field. The outcomes of this study may inform teacher educators as they consider designing similar experiences for their pre-service teachers. Because inclusion is an increasingly common practice in K-12 classrooms (U. S. Department of Education, 2008), teacher educators have an obligation to both model co-teaching and prepare general and special education teachers for the collaborative experiences they may have as in-service teachers in K-12 classrooms.

References

Arthaud, T. J., Aram, R. J., Breck, S. E., Doelling, J. E. & Bushrow, K. M. (2007). Developing collaboration skills in ore-service teachers: A partnership between general and special education. *Teacher Education and Special Education,* 30(1), 1-12.

Austin, V.L. (2001). Teachers' beliefs about co-teaching. *Remedial and Special Education, 22,* 245-255.

Boudah, D. J., Schumacher, J. B., & Deshler, D. D. (1997). Collaborative instruction: Is it an effective option for inclusion in secondary classrooms? *Learning Disability Quarterly,* 20, 293-316.

Brantlinger, E., Jimenez, R., Klingner, J., Pugach, M., & Richardson, V. (2005). Qualitative studies in special education. Exceptional Children, 71(2), 195-207.

Brownell, M. T., Sindelar, P.T., Kiely, M.T., Danielson, L.Cl, (2010). Special education teacher quality and preparation: Exposing foundations, constructing a new model. *Exceptional Children, 77*(3), 357-377.

Buckley, C. (2005). Establishing and maintaining collaborative relationships between regular and special education teachers in middle school social studies inclusive classrooms. In T.E. Scruggs & M.A. Mastropieri (Eds.), *Cognition and learning in diverse settings: Vol 18. Advances in learning and behavioral disabilities* (pp. 153-198). Oxford, UK: Elsevier.

Cook, L. & Friend, M. (1995). Co-teaching: Guidelines for creating effective practices. *Focus on Exceptional Children, 28*(3), 1-16.

Dieker, L.A., & Murawski, W.M. (2003). Co-teaching at the secondary level: Unique issues, current trends, and suggestions for success. *The High School Journal, 86*(4), 1-13.

Fennick, E. & Liddy, D. (2001). Responsibilities and preparation for collaborative teaching: Co-teachers' perspectives. *Teacher Education and Special Education, 24*(3), 229-240.

Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. *International Journal of Qualitative Methods,* 5(1), Article 7. Retrieved March 20, 2010 from http://www.ualberta.ca/~iiqm/backissues/5_1/html/fereday.htm

Friend, M. & Cook, L. (2009). *Interactions: Collaboration skills for school professional* (6th ed.). New York: Longman.

Giangreco, M.F., Edelman, S., & Dennis, R. (1991). Common professional practices that interfere with integrated delivery of related services. *Remedial and Special Education, 12*(2), 16-24.

Goe, L. (2006). *The teacher preparation, teacher practices, student outcomes relationship in special education: Missing links and next steps. A research synthesis.* Washington, DC: National Comprehensive Center for Teacher Quality. *Individuals with Disabilities Education Act [IDEA]*. (2004). Washington, D.C.

Kamens, M.W. (2007). Learning about co-teaching: A collaborative student teaching experience for preservice teachers. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children, 30*, 155- 166.

Kamens, M. ., Loprete, S. J. & Slostad, F. A. (2000). Classroom teachers' perceptions about inclusion and preservice teacher education. *Teaching Education, 11* (2), 147-158.

McKenzie, R.G. (2009). A national survey of pre-service preparation for collaboration. *Teacher Education and Special Education, 32*(4), 370-393.

National Center for Education Statistics. (2007). Digest of Education Statistics, Table 48. Retrieved July 7, 2009 from http://nces.ed.gov/programs/digest/d07/tables/dt07_048.asp

No Child Left Behind (NCLB) Act of 2001, 20 U.S.C.A. § 6301 *et seq.* (West 2003).

Pierangelo, R., & Giuliani, G. A. (2008). *Frequently asked questions about Response to Intervention: A step-by-step guide for educators.* Thousand Oaks, CA: Corwin Press, Inc.

Pugach, M.C. & Blanton, L.P. (2011). Interrogating the meaning of collaboration and its role in teacher education. *Teacher Education and Special Education: The Journal of the Council for Exceptional Children, 34*(3), 181-182.

Pugach, M.C., Blanton, L.P., & Correa, V.I. (2011). A historical perspective on the role of collaboration in teacher education reform: Making good on the promise of teaching all students. *Teacher Education and Special Education: The Journal of the Council for Exceptional Children, 34*(3), 183-200.

Pugach, M. C., & Blanton, L. P. (2009). A framework for conducting research on collaborative teacher education. *Teaching and Teacher Education,* 25, 575-582.

President's Commission on Excellence in Special Education. (2002). *A new era. Revitalizing special education for children and their families.* Retrieved July 2, 2009 from http://www.ed.gov/inits/commissionsboards/whspecialeducation/reports/pcesefinalreport.pdf

Rice, D. & Zigmond, N. (2000). Co-teaching in secondary school: Teacher reports of

developments in Australian and American classrooms. *Learning Disabilities Research and Practice, 15,* 190-197.

Scruggs, T.E., Mastropieri, M.A, & McDuffie, K.A. (2007). Co-teaching in inclusive classrooms: A metasynthesis of qualitative research. *Exceptional Children, 73*(4), 392-416.

Shade, R. A., & Steward, R. (2001). General education and Special education pre-service Teachers' Attitudes Toward Inclusion. *Preventing School Failure, 46*(1), 37-45.

Shippen, M., Crites, S., Houchins, D., Ramsey, M., Simon, M. (2005). Preservice Teachers' Perceptions of including Students with Disabilities. *Teacher Education and Special Education, 28*(2), 92-9.

Silverman, J.C. (2007). Epistemological beliefs and attitudes toward inclusion in pre-service teachers. *Teacher Education and Special Education, 30*(1), 42-51.

Snyder, R. F. (1999). Inclusion: A qualitative study of inservice general education teachers' attitudes and concerns. *Education, 120* (1), 173-180.

Study of Personnel Needs in Special Education. (2001). General education teachers' role in special education. *SPeNSE Fact Sheet,* retrieved June 1, 2009 from http://ferdig.coe.ufl.edu/spense/gened11-29.pdf

U. S. Department of Education, National Center for Education Statistics. (2008). Digest of Education Statistics http://nces.ed.gov/programs/digest/d07/tables/dt07_048.asp

Van *Laarhoven*, T., Munk, D., Lynch, K., Bosma, J., & Rouse, J. (2007). A Model for Preparing Special and General Education Preservice Teachers for Inclusive Education. *Journal of Teacher Education, 58*(5), 440-55. Retrieved 9 July 2009, from Education Full Text database.

Weiss, M.P. (2004). Co-teaching as science in the schoolhouse: More questions than answers.

Journal of Learning Disabilities, 37, 218-223.

Weiss, M.P. & Brigham, F.J. (2000.) Co-teaching and the model of shared responsibility: What does the research support? In T.E. Scruggs & M.A. Mastropieri (Eds.), *Advances in learning and behavioral disabilities: Vol 14. Educational interventions* (pp. 217-245). Oxford, UK: Elsevier.

Welch, M., (1996). Teacher education and the neglected diversity: Preparing educators to teach students with disabilities. *Journal of Teacher Education, 47,* 355-366.

Yoder, D.I. (2000). Teachers; perceptions of elements and competencies/characteristics that affect collaborative teaching at the secondary level. *Dissertation Abstracts International, 61*(12), 4735A (UMI No. AAI9996182).

The contents of this manuscript were developed under a grant from the US Department of Education, Cooperative Agreement #H325TH325T070022. However, those contents do not necessarily represent the policy of the US Department of Education, and you should not assume endorsement by the Federal Government. Project Officer, Tina Diamond