

Implementing Co-Teaching Models in University Settings to Enhance Teacher Candidates' Self-Efficacy towards working within Inclusion Settings

Regina Rahimi, Ed. D

Armstrong State University
United States of America

Toni Franklin, Ph.D.

Columbus State University
United States of America

Current educational mandates in the U.S. such as the Individuals with Disabilities Act (IDEA) 2004 and No Child Left Behind (NCLB) 2001 have set high standards that require all students have exposure to and become proficient in grade level standards. The Individuals with Disabilities Act (IDEA) 2004 requires that students with disabilities be educated to the maximum extent possible in the least restrictive environment with non-disabled peers. NCLB requires that all students be included in school accountability measures. As a result of this current direction, many schools are including students with disabilities into the regular education classroom for at least part of the school day. In 2011, 80% of all students ages six to 21 served under IDEA spent 40% or more time inside the regular education classroom (Institute on Disability, 2013). This highly significant change in instructional delivery for special needs students has had major implications for both general and special educators and their students.

In order to ensure that students with disabilities continue to receive the specialized instruction they are entitled to while receiving access to the general education curriculum at the same time, co-teaching has become a widely used instructional model in regular education classrooms (Brinkmann & Twiford, 2012). Within this model, teachers in the general education classroom are expected to share the responsibility with special education teachers for ensuring that students with disabilities have access to and achieve the same grade level standards as grade level peers. This is done by both teachers working together to plan lessons and share instructional duties for all students within the general education setting. For this model to be successful, general education and special education teachers must collaborate and work together so that students with disabilities can become proficient in the general education curriculum.

Collaboration and Co-Teaching

Collaboration and co-teaching are terms that are used widely in the field of education today. They are often used interchangeably with each other; however they are not the same thing. Collaboration is the process of working together, while co-teaching includes the actual act of working together. When teachers collaborate, they develop a plan for what should be done. The actual implementation of that plan can be done either separately or together. Co-teaching, on the other contrary, requires teachers to not only develop a plan together but to also implement the plan together.

Friend and Cook (2013) define collaboration "as a style for direct interaction between at least two coequal parties voluntarily engaged in shared decision making as they work toward a common goal" (p.6). Collaboration amongst teachers can happen in many forms in a school. Teachers can collaborate by planning lessons together or simply by working together on school wide projects. Collaboration happens whenever two professionals work together towards a common goal. Although collaboration is key to the success of students with disabilities in the general education classroom (Griffin & Warden, 2006), it is just a part of an effective co-teaching model.

For the purpose of this study, co-teaching is defined as two or more certified professionals who contract to share instructional responsibility for a single group of students primarily in a single classroom or workspace for specific content or objectives with mutual ownership, pooled resources and joint accountability (Friend & Cook, 2013). Co-teaching is the act of delivering instruction to a diverse group of students. Friend and Cook (2013) describe six approaches to implementing the co teaching model:

- 1) one teach, one assist- one teacher leads the instruction while the other circulates among the students offering help as needed to individual students.
- 2) one teach, one observe one teacher leads large-group instruction while the other observes and collects data
- 3) station teaching- students rotate through stations where each teacher is responsible for instruction within one station
- 4) parallel teaching- the class is divided into two groups and they are simultaneously taught the same material
- 5) alternative teaching- one teacher instructs a large group while the other works with a small group on an alternative lesson
- 6) team teaching- both teachers lead large-group instruction

Although there are several approaches to co-teaching, the one thing that remain consistent throughout the approaches is that both teachers are actively working together within the regular education classroom.

For collaboration and co-teaching to be successful both the general education and special education teachers must know what roles and responsibilities they will be expected to assume as well as what skills and knowledge they bring to the collaboration. There has been research revealing several skills that both general education and special education teachers must be proficient in for co-teaching to be successful. Those skills include: effective communication including conflict resolution, the general education curriculum, curricular and instructional adaptation, inclusion strategies, classroom management, and effective lesson planning (Brinkmann & Twiford, 2012; Graziano & Navarrete, 2012). These skills do not come naturally to many people; they are things that need to be taught and nurtured in order to develop. However, pre-service teachers often do not receive the training or necessary experiences they need on these prerequisite skills for successful collaboration and co teaching in the general education classroom (Sobel, Iceman-Sands, & Basile, 2007).

Teacher Preparation

While the p-12 classroom setting has changed drastically with the implementation of the inclusion model, this change has been slow to impact the teacher education programs. Today's general education teachers have to be prepared to collaborate and co-teach to meet the educational needs of a diverse group of students (Levine & Education Schools, 2006). Unfortunately, with the current structure of teacher preparation programs, teachers are graduating unprepared to meet the diverse needs of everyone inside a typical American classroom (Levine & Education Schools, 2006). While it will be an almost certainty that general education teachers will be directly working with special education teachers, many have not had any such experience in their pre service preparation. In a 2002 study by Carlson, Brauen, Klein, Schroll, and Willig, it was reported that only 53% of special education teachers and 29% of general education teachers indicated having college coursework in collaboration.

Currently, there is a mismatch between the reality of today's schools and traditional teacher preparation programs (Brownell, Ross, Colón, & McCallum, 2003). Research studies over the past 40 years have shown that collaboration across general and special education is critical to the improvement of educational opportunities for students with disabilities (Blanton & Pugach, 2007). However, institutes of higher education have not been fully aligned with the research. When looking at how often special education majors and general education majors actually engage in direct, shared coursework, we found this is rarely the case. In fact, the academic programs of study are often vastly distinctive for each major. General education programs typically provide extensive instruction in pedagogy and practice teaching in one area of specialty. On the other hand, special education programs provide teacher candidates with extensive training on laws and procedures. For special education majors, there is often limited exposure to discipline specific curriculum and content pedagogy.

While current accreditation standards for teacher preparation programs require general education programs to prepare pre service teachers to provide instruction to diverse populations, including students with disabilities, many traditional general education programs only require candidates to take only one disability-focused class (Levine & Education Schools, 2006). Such a typical course would introduce the concept of collaboration and co-teaching, but the main focus of this general special education course would be to teach about disability categories and the law, not specifically about the practices of co-teaching and collaboration. While research has shown that introductory courses are successful in improving teachers' attitudes towards students with disabilities, changing the attitudes of teachers does not necessarily prepare them to effectively instruct students with disabilities in an inclusive setting (Sobel, Iceman-Sands, & Basile, 2007).

The practice of only requiring one disability-focused course has been shown to be ineffective in preparing general education teachers for the realities of collaboration and co-teaching in the classroom (Darling-Hammond & Bransford, 2005; Holmes Group, 1986; National Commission on Teaching and America's Future, 1996; Pugach, 2005).

On the other side of the spectrum, special education candidates typically do not have any exposure to general education courses, which characteristically focus on teaching strategies for specific content and in depth study of discipline specific standards. Conversely, preparation for special education candidates focus on knowledge of effective interventions, assessments, and collaboration. This preparation leaves candidates feeling less than well prepared to meet professional challenges in content area instruction.

This lack of preparation in collaboration results in ineffective co-teaching and misunderstanding with regard to the respective roles each co-teacher has within the inclusive classroom. It is important to note that general education teachers' skills and attitudes have been identified as important factors to the success of the inclusion of students with disabilities in the general education classroom (D'Alonzo, Giordano, & Cross, 1996). Studies have shown that general education teachers who are willing to work with students with disabilities in the classroom fear that their lack of training and preparation makes their potential impact on special needs students inadequate (Conderman & Johnston-Rodriguez, 2009; Graziano & Navarrete, 2012). Researchers agree that teacher preparation programs are responsible for changing teacher attitudes and skills about collaboration and co-teaching in order to enhance student achievement (Conderman & Johnston-Rodriguez, 2009).

Providing pre-service teachers with the knowledge and skills needed to meet the diverse needs of students with disabilities in an inclusive setting is essential for teacher preparation programs. This is especially true if the goal of teacher preparation programs is to produce teachers ready and willing to assume the roles and responsibilities that will be expected of them once they enter the classroom.

Preparing teachers to effectively collaborate and co-teach requires a joint effort on the part of those who prepare general and special education teachers. Students are taught and participate in collaborative activities throughout their educational careers. Yet, they are not experiencing collaboration among their instructors (Pace & Austin, 2003). Furthermore, teacher candidates rarely have the opportunity to model collaborative teaching behaviors themselves (Jones & Morin, 2000). It has been suggested that the best way to acquire the knowledge, skills, and dispositions needed to successfully collaborate is through facilitation in authentic collaborative structures and decision-making activities (Graziano & Navarrete, 2012). However, we question how much of these type of "authentic" opportunities teacher candidates have prior to their first teaching experience in inclusive settings.

Purpose of the Study

Our study has sought to examine how modeling co-teaching within our own university classroom could impact teacher candidates' preparation. This paper examines an experimental course model in a teacher education program in a mid size public four year institution. Offered in the College of Education, the course was structured as a co-taught class with a special education literacy course taught by a faculty in the Special Education program and an English methods course taught by a faculty in the Secondary Education program. The course was cross-listed and was designed to be an "authentic" co-taught environment. This paper details the structure of the class as well as the outcomes for the General and Special education majors. It also discusses the recommendations the faculty members have for the continuation and further development of this instructional model.

Many factors underscore the need for the implementation of this model in teacher preparation programs. First, the increased emphasis on accountability for public schools mandated by NCLB and the reauthorization of IDEA which mandate that students with special needs have access to the general education curriculum in the least restrictive environment has resulted in more and more schools relying on co-teaching to meet those requirements.

Secondly, there is increasing accountability for institutes of higher education. In 2011 the Council of Chief State School Officers revised their standards, the Interstate Teacher and Assessment and Support Consortium (InTASC), which outlines the core knowledge base and skills all new teachers should possess when entering into the classroom. The updated standards emphasize the need for all new teachers to be able to work with a diverse group of learners and collaborate to increase student achievement. The standards have been adopted by the Council for the Accreditation of Educator Preparation (CAEP), which serves as the national accreditation body for teacher preparation programs.

Thirdly, we underscore the point that despite the popularity of the co-teaching model and the number of students being served in this way, teachers are often ill prepared to work within this environment. The US Department of Education (2001) reported that only one third of general education teachers feel prepared to work with students with disabilities in an inclusion setting. We found through our own teaching experience prior to this course that many graduates express anxiety about their skills and ability for teaching students with disabilities in the general education classroom. Additionally, they remain wary of “sharing space” with another adult. We designed this course to address students’ apprehensions. Need another line

Importantly, solid preparation can positively impact teacher efficacy. Teachers’ efficacy is described as a “teacher’s belief that he or she can help even the most difficult or unmotivated students” (Gibson & Dembo, 1984, p. 570). Teachers with high self-efficacy behave differently from their colleagues by being open to new ideas, more willing to experiment with different instructional practices, less likely to refer students to special education. These teachers are more likely to persist and invest more time and effort when faced with students with diverse learning or behavioral needs (Gibson & Dembo, 1984; Brown, et al., 2008). A teacher’s sense of efficacy is increased when exposed to training techniques that address inclusion of students with disabilities in the general education classroom (Brown, et al., 2008). We designed this course to support and encourage our teacher candidates’ sense of self-efficacy.

Structure and Design of the Course

We met during the summer prior to the course offering and began our own process of co-planning. During this time we developed a survey that we used to determine the overall impact of the course on candidates’ learning.

The survey asked questions related to: their current definitions of co-teaching, what they hoped to gain from this experience, perceptions of inclusion, any previous experience in courses with co-teaching, level of preparation to work in an inclusion setting, and then an opportunity for the candidates to provide open ended feedback.

From their early responses on the survey, it became apparent that they had limited knowledge and/or experience with the co-teaching model.

“I have rarely seen it because the schools that I have been in can’t afford it. When I did see it, it was the regular education teacher doing most of the work every time.”

- *“Most of my classes have talked about collaboration in the classroom, while this will be the first to model it”*
- *“This will be my first experience with co teaching”*

Given responses such as those above and through hearing our students in less formal settings discuss with us their angst about co-teaching, we confirmed our assumptions that a course such as this was desperately needed in our programs.

To begin, it should be noted that the two courses that we chose to cross-list lent themselves to this particular structure well. Since both of the courses focused on literacy skills, neither of our classes would be compromised in terms of standards or content. Rather, it was clear that we would be able to enhance each other’s class while meeting our own distinct course requirements. Certainly, finding courses that ‘marry well’ is important to this particular course offering.

This class was offered in the fall. We, the two faculty involved in the course, began our preparations in the summer. Having not worked together before, we began our initial meeting by having lunch and getting to know each other a bit personally, a recommendation that we encourage co-teachers to pursue. Our second meeting was our initial planning meeting for the course: we felt it necessary to examine our own teaching philosophies and determine how we ourselves viewed “co-teaching”. While there are several definitions of co-teaching found in the literature, for the purpose of this course, we used the following understanding of co-teaching to frame our design of the course: Co teaching is “two or more professionals delivering substantive instruction to a diverse or blended group of students in a single physical space” (Friend & Cook, 2013, p.34). To further elaborate, we committed to the idea that co-teaching results from educators possessing distinct sets of knowledge and skills working together to teach academically heterogeneous groups of students in the general education classroom, considering the general education teacher as the expert in the curriculum while the special education teacher is the expert in the process of learning and the individualized needs of special needs students (Friend & Cook, 2013). We discussed our own “expertise” and the way in which that knowledge and experience could be utilized within this model.

With one of us with a background in secondary English instruction and the other with k-12 experience in Special Education, we were clear and excited about the contributions both of us would be making within this course. It is with this conceptualization of co-teaching that we began to develop the experience.

Perhaps the most important aspect of co-teaching is co-planning. Without co-planning there is no sharing of expertise and teachers tend to teach the way they normally do, thus negating one of main benefits of co-teaching (Friend & Cook, 2013). This underscores the necessity for co-teachers to be given *time* to co-plan if the model is to be indeed effective. While we spoke numerous times throughout the week, time for co-planning became our priority, and as such we scheduled a formal weekly meeting for our collaborative planning. We chose the morning after our co-taught evening class. This meeting time gave us a chance to reflect on the previous night's class as we made plans for the following week. Those weekly planning meetings were essential to our course success, a point we reiterated throughout the course with our students. We discussed curriculum, made plans for our general education students as well as our special education majors. We were careful to consider the needs of both groups in planning the instruction for each class, just as we instructed our students to do when they are in their co-planning experiences. Additionally, we used our co-planning meetings to reflect on our approach, and we had honest evaluations of our own teaching strategies.

As mentioned previously, our two courses were well suited for a co-taught model. Both courses had shared instructional goals and student learning outcomes related to literacy and expression. We were able to mirror various assignments in the courses and co-teaching material, offering multiple perspectives. So, for example, when we focused on direct reading instruction, we would explore the reading curriculum for grades 6-12, discuss content pedagogical approaches for that curriculum and then we would focus on specific strategies for addressing that curriculum with students with specific learning needs. It was an incredibly educational experience to discuss "real-time" accommodations. Our lessons throughout the semester were planned in such a way that "content" and "accommodations" were featured each class period.

In addition to the student learning outcomes that we had in the courses concerning literacy, we also developed learning outcomes related to the practice of co-teaching. These learning outcomes were measured by informal observations as well as by candidates' responses on an open-ended survey created by us. The outcomes we hoped to measure related to candidates': Understanding the co-teaching model as applied to ELA classrooms; understanding the roles of general and special educators in co-teaching environments; cultivation of professional dispositions for collaboration; development of knowledge of content/pedagogy for ELA students in inclusion classrooms; and perceived preparation and self-efficacy for teaching in inclusive settings.

Also during our meetings in the summer prior to the first class, we randomly assigned co-teachers from our class rosters, with a student from the ELA methods course paired with a student in the Special Education course. We were fortunate to have nearly the same number of students enrolled in each, making these pairings relatively easy. The random assignment of partners was intended to replicate a professional situation in which a co-teacher is assigned. We used no defining characteristic or experience to assign co-teachers; it was entirely random. As we will discuss in the recommendations section, this random assignment proved to be somewhat challenging during course itself.

Importantly, we designed a shared "key assessment" for the courses. This shared assignment consisted of a 20 day ELA instructional unit. The candidates were given a group of students with specific special needs such as: learning disabilities, visual challenges, emotional behavior disorders, Autism, homelessness and ESOL. The candidates were instructed to co-plan the unit throughout its entirety. The lessons were required to be original work, and the candidates were required to address each strand of ELA as well as provide adequate accommodations for each lesson. This was the on-going project in the course and one that was given the most attention and time from the candidates. We consider this experience to be the most valuable for addressing the co-teaching outcomes within this course. This unit was intended to engage the candidates in the authentic work of co-planning, with them articulating the role that both would have during each lesson. The candidates were asked to include all of the accommodations and modifications as well as any and all activities included as part of the unit.

In order to assess the outcomes concerning the co-teaching model, we created a survey instrument that we administered before and after the course. For the protection of candidate anonymity, we asked another faculty member to administer the surveys that were coded by number.

The surveys were open ended and sought to gauge candidates' understanding of co-teaching, perception of preparedness to work within an inclusive setting, and an over all reflection on this course model.

Findings from the Survey

With regard to the candidates' understanding of co-teaching as an instructional model, one shift of notable importance was the candidates' articulated recognition of the goal of co-teaching to impact the learning of ALL students. As can be seen from the comments below, prior to this course, candidates' iterations of co-teaching focused largely on the sharing of physical space rather than an emphasis on a shared responsibility for instruction.

- From "when an educator works with another in one classroom" to "*co-teaching is where two teachers one general education and one special education work together to provide a healthy learning environment for all students*"
- From "co-teaching is when more than one teacher works together in order to instruct one class" to "*co-teaching is when two or more teachers work together using a variety of strategies for instruction in order to instruct students on every learning level*"
- From (co-teaching requires) "teamwork to teach a lesson to students. Both are equals and they share a room" to "*Each teacher puts in advice and suggestions to alter or modify a lesson, project or task so that all students can learn and succeed*"
- From "SPED teachers and content teacher working simultaneously with different groups of students in the same classroom" to "*co teaching looks like the general and special education teacher working together in various models to deliver appropriate instruction to all students*".

This alteration in the candidates' understandings needs to be emphasized because it speaks to one of the most important goals of an inclusion classroom and that being that all students can learn and benefit from more a co-taught classroom.

Another important finding from this course structure was the impact the course had on students' understanding of the roles that special and general education teachers have in a co-taught classroom. Through modeling co-teaching together as instructors and by pairing the general education and special education teacher candidates to collaborate together, the candidates were able to more clearly articulate each other's contributions to the co-teaching environment. This is an important outcome we had for the course as it speaks to the professional relationship that needs to be cultivated in the inclusive classroom. The candidates' responses indicate a shift to a much more sophisticated understanding of the roles of co-teachers.

- From "two teachers working together to education same class" to "*teachers working, planning, and teaching together*".
- From "co teaching means to teach cooperatively with another teacher in the same classroom" to "*co-teaching means to form lesson plans, ideas for classroom management, and dual instruction. It is multiple teachers working together to better the learning environment and experience for their students together*".
- From "(co teaching is) "*collaborative, positive, enjoyable- if both parties/teachers embrace the opportunity to co-teach*" to "*two teachers communicating, listening and engaging in academic planning*"
- From "it means two teachers team up to teach a course or class at the same time, one teacher takes the lead role and the other teacher may interject for clarity and more detail" to "*co-teaching is two teachers working together to plan and teach a lesson. For example, a SPED teacher and an ELA teacher can plan and teach a lesson on writing*".
- From "co teaching can either be both instructors sharing the responsibility of instruction, breaking up the small groups or one instructor teaching and the other helping to reinforce those practices" to "*co teaching looks interchangeable. Both teachers are outfitted with the knowledge and materials to teach and accommodate each lesson*".

One of the most important outcomes for this course was to impact candidates' preparedness or perceived preparedness for working in an inclusion setting. Speaking to candidates' perception of self-efficacy, their perceived preparedness was impacted positively from this course model as can be seen in the shift in candidates' responses to the survey before and after. When asked if they felt prepared to work in an inclusion setting, comments such as those listed below indicated that candidates felt better prepared as a result of this course.

- From “no I do not feel ready to co teach because I am not prepared to teach yet” to “*yes because I welcome another set of eyes*”.
- From “no. I am more prepared in the content of ELA” to “*yes, I have always worked well with others and consider myself to be a team player. I am most prepared to work with peers and collaborate ideas and come up with effective lessons and teaching tools and strategies*”

In addition to specific learning outcomes, we also asked the students to provide their overall reaction to this course model and working with a “co-teacher” throughout this semester. While there were a few mixed reviews, most candidates found the model to be effective and beneficial.

- Citing their comments on what they learned this semester: “learning about new technologies that can be used in the classroom and getting a first hand general education perspective”,
- “strategies for understanding how to teach in an ELA classroom”,
- “getting to know others in education and learning their perspective on how they view education”,
- “working with students from another class”,
- “the experience of working with another teacher and having them accommodate the lesson. It taught me a lot”,
- “although it was tough and occasionally stressful, I loved working with other educators to produce effective lessons”,
- loved working with my co-teacher. I learned a lot from her about special education which I have been able to use in other courses”,
- “the processes we had to go through to get the lessons and the presentations together.
- The information about ELA was very important for me so I can help my students with disabilities”.

The overall response from our students was that this was a beneficial experience for them and they felt the course was worthwhile offered in this fashion. We were also offered feedback concerning how to improve the experience as there were some students who were less than completely ‘satisfied’.

Additionally, the work from their units exhibited a great deal of effort and time spent with their co-teacher in planning lessons. Overall, the students were able to provide provoking, challenging units of instruction that addressed common core ELA standards while also addressing the accommodations needed for each special education student assigned. Our teacher candidates co-presented lessons during course meetings and were able to articulate how each teacher would be providing instruction throughout the class period.

Importantly, our general education teacher candidates were able to articulate particular strategies, assistive technologies and overall thoughtfulness for working with special needs students. They developed tools for working with students with specific disabilities and were able to clearly articulate the needs of particular students. Equally interesting, the special education teacher candidates throughout this course began to develop their understanding of particular content pedagogy and the research-based practices for teaching content, in this case, English. The conversations that took place between our candidates demonstrated their mutual commitment to developing the units and the commitment each had for addressing student diversity.

Recommendations for Future Courses

Of course, teaching in this model, we learned a great deal as instructors ourselves. First, undoubtedly, we both agree this is a model of instruction that should be *strongly* encouraged in teacher preparation. The learning outcomes and the overall benefits of this course provide value to candidates’ experience, impact their self-efficacy, and better prepare them for professional settings to positively impact their students’ learning. Certainly through this model general education candidates benefit from working with special education majors and learning hands-on, direct strategies for accommodating and modifying their content for special needs students, while special education candidates get immersed in discussion of particular content standards and pedagogical approaches for the general curriculum. As cited in candidates’ comments, these were immensely important educational experiences for those involved.

While the experience was largely positive, through reflection, there are some recommendations that we make regarding offering this model in the future. As mentioned earlier, we made the decision to pre assign co-teaching pairs through random assignment.

Our rationale for this approach was that it mirrors the actual professional world with the assignment of colleagues. However, we found that in a few cases, the pairs of students had conflicting schedules and were unable to find time to meet outside of class. Given that we had so much content to cover within the course, we did not assign any considerable amount of meeting time within class. Candidates therefore had to schedule meetings with one another outside of class, which made it difficult for them to effectively plan if their schedules did not permit them to meet regularly together. One or two of the teams admittedly did their co-planning through email with one person, usually the general education candidate, writing the majority of the lesson. In the future, our recommendation is that we attempt to “match” co-teachers with similar schedules so that they will be able to meet more easily to co-plan. Additionally, we will consider adding a period to each course meeting where the co-teachers are able to meet, albeit briefly. The addition of this in class meeting time would allow us to further model and make recommendations for the co-planning structure.

The second recommendation that we would make based on candidate feedback is that we would arrange more time to meet with our respective classes. Our classes were structured as two and half hour meetings weekly. We scheduled “de briefing” meetings with our classes at the end of each session. Many of our candidates expressed that they wanted more time with us individually.

Our last recommendation would be that we provide a stronger link to the course and the required field experience. All students enrolled in this course had to complete a 50-hour field experience. In the future, we will make efforts to have our students placed together in an inclusion classroom. During this semester, they were placed in separate classrooms. Allowing the students to be placed in the same field experience setting will allow them to further examine theory and practice through a common experience.

We hope to continue this model and will encourage other content areas to consider embracing this design. Given the outcomes of this course we feel strongly that we can continue to develop this model to strengthen the preparation and experiences for both general and special education teacher candidates.

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