

Are Pre-Service Teacher Candidates Prepared to Co-teach in Today's Classroom?

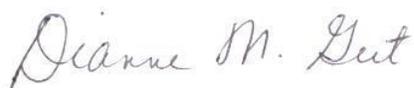
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## **Abstract**

Co-teaching has become one of the most popular methods of including students with disabilities into general education classes. There is an abundance of research regarding what co-teaching is or what it is not, the benefits and limitations, and how it should be implemented. What the research lacks, however, is information regarding the preparedness of pre-service teacher candidates to engage in co-teaching. The literature reports how co-teaching should be presented at the in-service level, but fails to adequately show how pre-service teachers are preparing for this method of inclusion. This study surveyed pre-service teacher candidates with the intention of gaining perspective on their preparedness to co-teach in today's classroom.

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To investigate the preparedness of pre-service teacher candidates, this researcher chose to explore the literature on co-teaching using Internet searchers to find online journals. After researching co-teaching and fully grasping the concept, the researcher chose to examine effective teacher education programs, and to review literature regarding pre-service teachers and whether field experiences contained co-teaching. The review of literature revealed many articles related to co-teaching, but little regarding the education pre-service teachers receive in preparation for co-teaching in today's classroom.

## **Literature Review**

### **History of Co-teaching**

Co-teaching has become the most frequently used method for inclusion classrooms according to National Center on Educational Restructuring and Inclusion (Kloo & Zigmond, 2008). This model has emerged from shifts within the educational system. During the school reform movements in the 1980s, it was suggested that pullout programs were ineffective and did not meet the needs of students with exceptionalities (Volvino & Zigmond, 2007). It was also widely believed that the needs of students who were at-risk and exceptional learners were not having their needs met while in the general education classroom (Volvino & Zigmond). This was the start of moving the special educator into the general education classroom.

Another reason for the popularity of co-teaching lies within the Individuals with Disabilities Education Act (IDEA) of 2004, which emphasizes the importance of inclusive instruction and availability of the general education curriculum for students with disabilities (Kloo & Zigmond, 2008). It was mandated that students identified as needing special education services have access to services and highly qualified teachers

(Friend & Hurley-Chamberlain, 2008). IDEA of 2004 also supports placing students into the least restrictive environment (LRE). IDEA requires that each public agency must educate students with disabilities with their non-disabled peers, and that special schools, special education classes, home schooling or other segregated placements must occur only when the disability is severe enough that alternate uses of accommodations and supplementary aides are not appropriate (United States Department of Education, 2004). The model of co-teaching, then, seems a logical response.

Friend and Cook (1995) provided the rationale for co-teaching to: increase instructional options for all students, improve the program intensity and continuity, reduce stigma for students with special needs, and increase the support for teachers and related school personnel. Other researchers agree that the reasons are to: increase access to the general curriculum, increase educational opportunities for students with disabilities or at-risk, and enhance the participation and performance of students with disabilities (Kloo & Zigmond, 2008; Mastropieri, Scruggs, Graetz, Norland et al., 2005; Murawski, 2008).

### **Definition of Co-teaching**

Co-teaching is a service-delivery option that utilizes two or more professionals, one special educator and one general educator, delivering instruction to a blended group of students in one physical space (Cook & Friend, 1995; Friend & Hurley-Chamberlain, 2008; Scruggs, Mastropieri, & McDuffie, 2007). The teachers are to share responsibility in planning the curriculum, teaching the lessons, classroom management and ongoing evaluation of the co teaching method (Gately & Gately, 2001; Kloo & Zigmond, 2008).

In a co-teaching situation, typically, general educators are responsible for content as they understand the structure and content, and special educators are responsible for facilitating the learning process, identifying individual needs of students and augmenting the curriculum and instruction (Friend & Hurley-Chamberlain, 2008; Kloo & Zigmond, 2008).

Although the Friend and Cook (1995) definition is widely accepted, Muller, Friend and Hurley-Chamberlain (2009) found that some states have chosen to adopt their own definition:

- *Virginia*—Co-teaching means a service delivery option with two or more professionals sharing responsibility for a group of students for some or all of the school day in order to combine their expertise to meet student needs.
- *Iowa*—Co-teaching is defined as two teachers physically present in a heterogeneous classroom with joint and equal responsibility for classroom instruction.
- *Oklahoma*—Co-teaching implies a partnership in the classroom of a teacher with general education credentials and a special education teacher with special education and/or content credentials. This partnership creates a qualitatively different classroom than one with only a single teacher. A change of instructional intensity is also often noted in descriptions of this type of classroom that is operated by two teachers and meets the instructional needs of all students in the classroom.

- *New York*—Integrated co-teaching services means the provision of specially designed instruction and academic instruction provided to a group of students with disabilities and nondisabled students. (p. 2 )

To further complicate matters, different states employ different terminology and definitions for co-teaching: Collaborative teaching, consultative content teaching, shared instructional responsibility, collaborative special education, instructional consultation, and team teaching (Muller, Friend, & Hurley-Chamberlain, 2009).

### **Co-teaching Models**

There are a variety of co-teaching models. Cook and Friend (1995) designed one of the first models. Cook and Friend (1995) and Kloo and Zigmond (2008) share insights into these variations of co-teaching. One teaching-one assisting is a variation in which one teacher maintains the instructional lead as one floats through the room and provides supports as needed. Station teaching divides the physical space into stations where the teachers present content and the students rotate around the room. Parallel teaching divides the students and the teachers deliver instruction within each heterogeneous group. Alternate teaching allows one teacher to work with a smaller group as the other provides instruction to the larger group. In team teaching, there is equality between the teachers, where each takes turns with roles. However, to be successful, there must be trust and commitment between the teachers.

Despite the variety of models, each should employ the following components: Two certified educators, instruction delivered by both, a heterogeneous group of students, and one single classroom where students with disabilities are taught with their peers without disabilities (Friend & Cook, 2007).

## **Benefits and Barriers of Co-teaching**

There is a need for continued research regarding the benefits of co-teaching (Friend & Hurley-Chamberlain, 2008; Lawson, 1999; Mastropieri, Scruggs, Graetz, Norland, et al., 2005; Murawski, 2006; Murawski & Swanson, 2001; Volvonino & Zigmond, 2007; Weiss, 2004). Despite the call for further research, some benefits have been noted. The students, whether they are already identified as needing special education services or are considered at-risk, are supported by extra attention from the special education teacher (Lawton, 1999). Due to the increased teacher time and attention, it was found that the social skills of low achieving and identified students improved, and relationships with others improved and/or developed (Walther-Thomas, Bryant, & Land, 1996). The ratio of student to teacher also "facilitated better progress monitoring, individual assistance, and re-teaching opportunities." (Walther-Thomas, Bryant, & Land). Additionally, students may be identified at an earlier age and can receive an enriched version of the curriculum (Lawton, 1999). Students have reported that they enjoy school more, learned more, felt better about themselves and others, and were more motivated (Walsh & Jones, 2004; Walther-Thomas, Bryant, & Land, 1996).

Geneseo Central School District implemented co-teaching in 1997 after providing the staff with professional development covering models of co-teaching, co-planning, and grading. Evaluation of the program found that students with disabilities achieved scores that enabled them to continue to the next grade level (Wischnowski, Salmon, & Eaton, 2004). According to grade cards, students with disabilities in co-taught classes were achieving grade level scores when classroom accommodations and

test modifications as defined in their Individual Education Plan were followed (Wischnowski, Salmon, & Eaton, 2004).

Although co-teaching is commonly used in schools, sufficient data is not available to suggest that this model is effective for improving the academic achievement levels of students (Mastropieri, Scruggs, Graetz, Norland, et al., 2005). Hang and Rabren (2009) studied a class of students that had not been in a co-taught class the year prior. They compared data and found that within the year the students were in the co-taught class, there was an increase in students' absences, tardiness, and discipline referrals. They also found there were no significant differences in the academic achievement rate of the students (Hang & Rabren, 2009).

Many problems exist with the research on co-teaching. Researchers have found there is a need to clearly define co-teaching and to further study the effect on student outcomes (Murawski, 2006; Piechura-Couture, Tichenor, Touchton, Macisaac, & Heins, 2006). Additionally, important information on outcome measures is not included, the interviews are primarily with teachers who consider co-teaching successful, teacher personality is a major factor in the success of co-teaching, the definition of co-teaching is unknown or not shared between the teachers, outcomes are frequently qualitative in nature and are therefore considered subjective, and finally, there is a lack of studies that clearly define the exact roles of the special educator (Mastropieri, Scruggs, Graetz, Norland, et al., 2005; Murawski & Swanson, 2001; Scruggs, Mastropieri, & McDuffie, 2007; Weiss, 2004).

The various ways that co-teaching is carried out is also a barrier. Because there is not a standard one-size-fits-all model, there are factors that can impact its effectiveness.

These factors include: age/grade level of students, content, instructional strategies, teachers' knowledge, teachers' commitment to the co-teaching relationship, time available for shared teaching, length of time spent in the partnership, students' placements within classes, and administrative support (Friend & Hurley-Chamberlain, 2008). These differences across factors lead to improper implementation of co-teaching, and no standard for monitoring the practice (Muller, Friend, & Hurley-Chamberlain, 2009). A final barrier identified by Muller, Friend, and Hurley-Chamberlain (2009) is the practice and preparedness of teacher candidates at the pre-service level for co-teaching.

Despite an abundance of research on co-teaching, the many definitions, varied implementations, and benefits and barriers, co-teaching is a popular method for including students with disabilities into classrooms of peers without disabilities. Pre-service teacher candidates complete their teaching degrees having learned theory, behavior and classroom management techniques, positive behavioral supports, and other relevant information. They spend hours observing in the classroom, and finally, practicing their skill during their Professional Internship (Student Teaching). However, during those first job interviews, when the pre-service teacher candidate is asked about experience with co-teaching, and/or if s/he is prepared to co-teach a class, what will the response be? This research paper seeks to answer the question, Are pre-service teacher candidates prepared to co-teach in today's classroom?

### **Teacher Education Programs**

Despite the fact that co-teaching is the most common method of inclusion (National Center on Educational Restructuring and Inclusion, 1995), few institutions of higher education teacher candidate programs provide specific instruction on co-teaching

for general or special educators (Murawski, 2002). It is even less common for teacher education programs to use co-teaching in the college classroom, model the experience, or emphasize the importance of collaboration between special educators and general educators (Murawski, 2002). In one study, 70% of participants reported that their institution of higher education did not offer any co-taught classes (Harvey, Yssel, Bauswerman, & Merbler, 2010). In the same study, it was found that more collaboration among departments would benefit pre-service teachers who may be entering school systems that use co-teaching, and that more emphasis on collaboration and inclusion was needed (Harvey, Yssel, Bauswerman, & Merbler, 2010).

Within this researcher's teacher candidate program, one class focused exclusively on collaboration and many of the other classes emphasized the importance of collaboration and possibilities of working within a co-taught class. No classes modeled the co-teaching experience. This researcher presumes there are various reasons why modeling co-teaching is not used at the university level. As school budgets continually get cut, it may not be economically feasible to have two professors co-teaching in a class. In the current structure, for an instructor to receive credit for teaching the class, a minimum number of students must be enrolled. So then, if co-teaching were to occur, would each instructor only receive partial credit, or shared credit, thus indicating a reduction in salary for at least the equivalent amount of work? Additionally, an important component of co-teaching is to have common planning time. With the many responsibilities instructors have beyond teaching, it may be quite challenging to coordinate common planning time.

## **Field Experiences**

Field experiences are an important element in a pre-service teacher candidate's professional preparation. In the field, candidates gain practice teaching and experience working in an actual classroom. At this researcher's university, there are multiple opportunities for field experience culminating with student teaching, or the Professional Internship (PI). Many pre-service teacher candidates will enter their PI confident of the knowledge acquired from their coursework. But, if their PI placement occurs in one of the increasing number of co-taught classrooms, will the pre-service teacher candidate have the background on co-teaching to be successful within this placement?

We tend to learn best by doing. The ancient Chinese proverb reminds us: "Tell me and I'll forget; show me and I may remember; involve me and I'll understand." In order to produce teachers who are prepared to co-teach and have a positive attitude about co-teaching, the field experiences offered in teacher candidate programs need to include co-teaching placements. Pre-service teachers need actual experiences co-teaching with another in order to fully understand the complexities of the method.

Kamens (2007) studied how student teachers learned about co-teaching and found that student teachers construct their knowledge of co-teaching from practicing the experience. The study involved four student teachers, their four cooperating teachers and two supervisors from the university. Participation was voluntary. Data was gathered from a variety of methods: Researcher field notes, university supervisor notes and observation reports, student teacher journals, student teaching observation reports, cooperating teacher notes and feedback, and email communications amongst all participants (Kamens). When the participants were asked for comments regarding their

experience with co-teaching, many stated that co-teaching and collaboration should be introduced earlier in their teacher education programs (Kamens). Kamens (2007) concludes that teacher education programs should imbed co-teaching and collaboration more fully into their education curriculum for general educators and special educators (Kamens).

Pre-service teachers, general educators and special educators, need ample opportunities to co-teach. It takes practice to learn how to collaborate with others and pre-service teachers should be afforded the opportunity to practice and refine this skill. Further, there are nuances within the co-teaching relationship that can be addressed and identified by pre-service teachers during practice.

### **Examples of Effective Pre-service Models**

Brownell, Ross, Colon, and McCallum (2005) identified seven elements of effective teacher education programs. When further examined, these elements can be associated with the inclusion of more intense co-teaching preparation to pre-service teacher candidates.

1. *A coherent program vision.* As previously outlined, co-teaching has many different definitions and implementation models. When a teacher candidate program chooses to employ one language when disseminating information on co-teaching, the pre-service teacher may be less confused about the practice.
2. *The conscious blending of theory, disciplinary knowledge, subject-specific pedagogical knowledge and practice.* Pre-service teachers need to make connections from coursework to practice. When professors model

practices, such as co-teaching, pre-service teachers are able to make that connection and observe how the practice is applied in a real-world setting.

3. *Carefully crafted field experiences.* Field experiences need to be meaningful and offer pre-service teachers the opportunity to practice current methods of teaching, including co-teaching. The relationship, then, between the field experience placements and the teacher education program is important in that placement should offer diverse settings and use a common language regarding co-teaching in the classroom.
4. *Standards for quality teaching.*
5. *Active pedagogy.* The pre-service teacher candidate will be at the helm of their learning. Professors support pre-service teachers as they engage in diverse co-teaching opportunities. Modeling co-teaching and offering opportunities to reflect on the practice of co-teaching will be encouraged.
6. *Focus on meeting the needs of a diverse student population.* When pre-service teachers enter the workforce, they will be expected to support diverse needs such as cultural, gender, and disability. Teacher education programs should support diversity by employing co-teaching in their programs.
7. *Collaboration as a vehicle for building professional community.*  
  
When co-teaching is used in teacher education programs, collaboration among differing programs is inevitable. Pre-service teachers should be prepared to collaborate with a variety of individuals as is expected once in the classroom. (pp. 242-243)

**Project ACCEPT.** Project ACCEPT (Achieving Creative and Collaborative Educational Preservice Teams) is an example of an attempt at designing an effective program. The model was developed in response to a need to prepare pre-service teacher candidates to work within inclusive settings and with a diverse population of students, and to support collaboration (VanLaarhoven, Munk, Lynch, Wyland, Dorsch, Zurita, et al., 2006). Participation was voluntary and included 84 pre-service teachers from elementary, secondary, and special education programs. One requirement was for pre-service teachers to be enrolled in the course, Collaborative Teaching in Inclusive Settings.

The main characteristics of the ACCEPT program include "...a shared course and clinical experience for pre-service special and general educators, instructional modules on critical competency areas for teachers in inclusive classrooms, and hands-on experience and assessment with assistive technologies" (VanLaarhoven, Munk, Lynch, Wyland, Dorsch, Zurita, et al., p. 209). After participating in the program, which included field experience, collaboration and co-teaching responsibilities with another pre-service teacher, 91% of the participants reported positive co-teaching experiences (VanLaarhoven, Munk, Lynch, Wyland, Dorsch, Zurita, et al.). Findings revealed that many of the participants felt that having an opportunity to practice co-teaching before entering the workforce was beneficial, more so than learning through coursework (VanLaarhoven, Munk, Lynch, Wyland, Dorsch, Zurita, et al.).

**The Power of Two.** Another example of an effective program was designed by a general educator and special educator. After graduating and entering the classroom, the general educator felt unprepared for the inclusive classroom, and working with her

special educator, so they designed a workshop entitled The Power of Two to share with others how co-teaching and collaborative teaching can and should work in the classroom. They worked with the university to incorporate this workshop into The Exceptional Learner, a class mandated for all pre-service teachers. The workshop occurred during two two-hour classes and was offered to 23 pre-service teachers.

During the workshop, teachers used effective strategies such as modeling and active pedagogy of having students' role play co-teaching. Upon completion of this workshop, 100% of the respondents agreed that they would be able to co-teach and co-plan in a classroom, when pre-survey results indicated that "...less than 50 percent of the students strongly agreed that they would feel competent and comfortable co-planning and co-teaching..." (Sprague & Pennell, 2010, p. 170).

Murawski (2002) shares the following strategies for establishing co-teaching relationships in preservice education:

- Talk about your pet peeves early in the relationship
- Include signals that both instructors are equal partners by having both instructors' names on the board in the beginning of school and using "we" instead of "I". Do not allow students to feel that one instructor is responsible for general education students and one is responsible for special education students.
- Determine a regularly scheduled time each week for planning and reflection. If that cannot be a common planning time during office hours, consider regular lunch dates. Email is also a wonderful option for ongoing communication.

- Be open about your own strengths and weaknesses related to teaching, grading, organizational practices, planning, etc. Try to maximize each person's strengths by breaking up work by personal preferences.
- Talk to the students about this relationship and discuss the fact that, even if the instructors may have different opinions about something, students are never allowed to play "mother against father." Support one another in front of students--and then feel free to discuss the issues when you are in a private office until you come to a reasonable understanding, or until you agree to disagree.
- Use different instructional activities to model how teachers can avoid getting stuck in the same old-same old routine. Regroup students frequently, emphasizing the importance of having different students in different groups each time so that no one is stigmatized as being with a "special ed" group. By trying new things with your class, you will be modeling how teachers can do the same with their students.
- Encourage students to read Cook and Friend (1995) and Bauwens, Hourcade, and Friend (1989) for more strategies on how to regroup students into different models that can work with co-teaching. A helpful text on Collaboration (to include Co-teaching) is by Friend and Cook (2000).
- Every week, openly discuss what is going well and what is frustrating. If one instructor is taking over too frequently, it is important to address

it early on. The more open the communication, the better the relationship and the more smoothly classes will run.

- Feel free to bring in other speakers. If students see that you are willing to accept others' opinions and expertise, as well as willing to collaborate with multiple people, they too will begin to consider doing the same with their classes. (Murawski, para. 11).

In summary, co-teaching is a popular method of service delivery intended to include students with disabilities into the least restrictive environment in accordance with IDEA. Through researching online publications and journals, this researcher found much regarding the confusion of co-teaching. Different states employ different definitions for what co-teaching is and how it should be implemented. Similarly, there is conflicting research on the benefits of co-teaching for students. Many barriers do exist to making co-teaching a successful option for the classroom. One of which is the preparation of pre-service teachers to co-teach in the classroom. To address this need, some universities have developed courses or workshops to help both special educators and general educators for this method of inclusion. Field experiences have proved to be invaluable for the teaching and preparing of co-teaching. Further, modeling of co-teaching has been an effective means of teaching the method, but may be difficult to do at the university level. Throughout the review of literature, there remained to be seen studies of current pre-service teacher candidate's perceptions of co-teaching and their preparedness for it within a classroom. This study aims to investigate this in order to help guide future university programs as they consider including co-teaching more integrally and purposefully into their pre-service teacher education programs.

## **Method**

After reviewing existing literature regarding co-teaching, it seems the practice will continue to be a popular and widely used method of inclusion. However, to successfully include students with disabilities using this method, teachers need to be prepared and ready to use co-teaching upon graduating from their institute of higher learning. To explore the preparedness of pre-service teacher candidates to co-teach and to gain insights of pre-service teachers' perceptions of co-teaching, this investigator conducted an anonymous Internet survey at this researcher's university.

### **Participants**

The participants in this study were all undergraduate teacher candidates involved in their Professional Internship (Student Teaching). Candidates varied in age and field of study but all were currently near completion of their Bachelor of Science in Education at a mid-western university. Subjects asked to participate in the survey were from the following undergraduate education programs: Early Childhood Education, Middle Childhood: Social Studies, Language Arts, Science, Mathematics; Adolescent-to-Young Adult: Integrated Language Arts, Integrated Math, Integrated Science, Earth Science, Life Science, Physical Science, Integrated Social Studies; Special Education/Intervention Specialist- Mild to Moderate needs, and Moderate to Intensive needs.

### **Instrumentation**

To collect data, the researcher designed a survey of eleven questions that consisted of five questions requiring a 'yes' or 'no' response and six open-ended questions that required short answer responses. The researcher chose this type of questioning to

gain both qualitative and quantitative information regarding participants' experiences and opinions

The researcher chose to conduct this survey online. Participants were sent an email to their university email account describing the nature of the study and a link on LiveText, a web-based online data collection tool. By clicking on the link in the email, participants gave consent to participate and results were anonymously aggregated in a LiveText account. Each participant was assigned a code number, providing and ensuring anonymity. Using the Internet to dispense the survey was done as a means of efficiency and objectivity.

### **Data Analysis**

The data from the survey respondents was aggregated and descriptive statistics were calculated for all quantitative data. Qualitative data was analyzed and coded for common themes. Relevant background information includes:

- whether students have taken a co-teaching class
- whether students have engaged in activities that provide expertise on co-teaching
- whether students feel prepared to co-teach
- students' major of study

Further analysis of the data is explained in the results section below.

The study participants completed an anonymous Internet survey regarding their preparedness to co-teach and their perceptions of co-teaching. The survey utilized meaningful questions to extract both qualitative and quantitative data in the hopes of providing the researcher with broad and detailed information regarding co-teaching and the pre-service teacher candidate.

## Results

The results of the survey yielded a wide array of data. Eleven participants responded to the online survey providing a small but meaningful sample size. Table 1 displays the number of respondents and their corresponding major area of study. This data resulted in both qualitative and quantitative information that was analyzed separately and will be reported in the sections below.

Table 1

### *Licensure and Respondents*

Area of Licensure	Number of Participants
Early Childhood Education (PreK-3)	3
Family and Consumer Science Education	1
Integrated Social Studies (7-12)	2
Special Education	1
Middle Childhood Math and Science	3
Integrated Language Arts	1

### Qualitative Analysis

**Definition.** A qualitative analysis of the responses from all participants involved a comparison of participants' explanation of co-teaching with the following formal definition:

Co-teaching is a service-delivery option that utilizes two or more professionals, one special educator and one general educator, delivering

instruction to a blended group of students in one physical space (Cook & Friend, 1995; Friend & Hurley-Chamberlain, 2008; Scruggs, Mastropieri, & McDuffie, 2007). The teachers are to share responsibility in planning the curriculum, teaching the lessons, classroom management and ongoing evaluation of the co teaching method (Gately & Gately, 2001; Kloo & Zigmond, 2008).

First, direct comparison of the above definition and students' explanation was carried out, resulting in none of eleven participants correctly describing co-teaching, identifying all key components. None of the respondents mentioned the use of a licensed special educator and general educator. For this reason, the researcher chose to search the definitions for key concepts that respondents employed to explain co-teaching.

**Key concepts.** Next, key concepts from the above definition were chosen and identified in the participants' explanations. These key concepts included: 'shared responsibility in planning, teaching, and classroom management', 'same authority', and 'equality'. All eleven participants included in their definition of co-teaching that it involved the collaboration of two or more teachers indicating their understanding that co-teaching was an instructional method that involved more than one teacher. When asked to, 'Please explain co-teaching in your own words, one participant responded, "Teaching with another teacher." While another responded, "Co-teaching is when you are basically partnered with another teacher to teach in the same classroom, or classrooms next to one another." Both were aware that co-teaching involved two or more teachers.

Three respondents mentioned that co-teaching occurred in a shared space.

*Co-teaching is when there are two teachers in a classroom together, sharing responsibilities, teaching and planning together. Co-teaching refers to the ability to coordinate and communicate with another person to teach children.*

*Sharing a classroom with another teacher and working together to instruct the class.*

*Co-teaching is when you are basically partnered with another teacher to teach in the same classroom, or classrooms next to one another.*

None of the respondents mentioned educating students with disabilities alongside peers without disabilities. Transcriptions of all other participant responses are provided in Appendix A.

**Authentic co-teaching experiences.** Next, participant responses were evaluated to determine whether pre-service teachers had engaged in any authentic co-teaching experiences. The key terms identified earlier were used to determine if participants had an 'authentic' co-teaching experience. Nine described what they considered a co-teaching experience in their life. However, only two of the nine had what the researcher would consider an authentic co-teaching experience.

*My teacher and I co-teach all of the time. She gives me responsibilities and she has responsibilities that she fulfills. Our planning is done together and we are team-teachers. In pre-primary, I co-taught with the other professional intern. We planned all of our lessons together and worked as a team.*

*During my partnership experience, I worked with another partnership student. Together we co-planned as well as co-taught on teaching days. We decided upon goals for the students together and thought of ways in which we could set the children up for success and help them achieve those goals.*

The student with the first response had a correct definition of co-teaching, whereas the student with the second response did not. Exact transcriptions of students' descriptions of co-teaching experiences are provided in Appendix B.

Although most students could not explain co-teaching or describe an authentic co-teaching experience, all eleven of them reported they knew what co-teaching is and ten responded they felt prepared to co-teach.

### **Quantitative Analysis**

The data was re-coded in order to carry out a quantitative analysis of the data. A categorical variable was created to represent co-teaching. A value of 1 was assigned if the participant's explanation of co-teaching included at least one key word and 0 if it did not.

**Relationship between co-teaching and licensure.** Table 2 shows a cross-tabulation between the variables co-teaching and licensure. Licensure is a categorical variable classifying participants' majors into four groups, depending on the children's age they are licensed to teach. The first group included majors focused on pre-school to 3<sup>rd</sup> grade (n = 3). The second group included majors focused on grades 4<sup>th</sup> through 9<sup>th</sup> (n = 3). The third group included majors focused on grades 7<sup>th</sup> to 12<sup>th</sup> (n = 4). Finally, the fourth group was comprised of those being licensed to teach Special Education.

The researcher chose to exclude the final (special education) group from cross tabulations for two reasons. First, it seemed inappropriate to compare future special educators with other majors because co-teaching is an essential element in the special education curriculum and is embedded in many of the required classes. Second, even if they were to be compared, there was only one participant receiving this licensure, which would make comparison inappropriate.

Results indicate that only 4 of 10 participants were able to provide a key term included in the definition of co-teaching. See Table 2 for details. When analyzing the responses by licensure, a differentiated pattern is observed; while half of the students focused on 7<sup>th</sup> to 12<sup>th</sup> grade were able to provide at least one key term included in the co-teaching definition, no participants focused on 4<sup>th</sup> through 9<sup>th</sup> grade included a key term in their own definition. One third of those focused on preparing to teach pre-school through 3<sup>rd</sup> grade included a key term in their own definition. Further, even though the special education major was not included in the cross-tabulations, this participant did not provide a correct definition for co-teaching according to the key terms chosen by the researcher.

Table 2

*Co-teaching vs. Licensure*

Licensure	Co-teaching	
	0	1
Pre-school to 3 <sup>rd</sup> grade	2	1
4 <sup>th</sup> to 9 <sup>th</sup> grade	3	0
7 <sup>th</sup> to 12 <sup>th</sup> grade	2	2
Total	7	3

**Relationship between coursework and licensure.** Table 3 represents the cross-tabulation analysis between licensure and coursework. A variable entitled *class* was created to represent whether the participant was able to recall the class where the concept(s) of co-teaching was covered, and assigned a value of 1. If the participant was unable to recall a specific course where co-teaching concepts were discussed, the variable *class* was coded zero. Table 3 shows a strong differentiated pattern. First, none of the participants focused on pre-school through 3<sup>rd</sup> grade and 4<sup>th</sup> to 9<sup>th</sup> recall the class where they learned about co-teaching. By contrast, all participants being licensed to teach 7<sup>th</sup> to 12<sup>th</sup> grade were able to recall the class where co-teaching was taught.

Table 3

*Licensure vs. Class*

Licensure	Class	
	0	1
pre-school to 3 <sup>rd</sup> grade	3	0
4 <sup>th</sup> to 9 <sup>th</sup> grade	3	0
7 <sup>th</sup> to 12 <sup>th</sup> grade	0	4
Total	6	4

Tables 2 and 3 taken together indicate that participants being licensed for grades 7 through 12 were able to provide at least one key term of co-teaching definition and at the same time could recall the class where they learned the concept.

**Relationship between experience and licensure.** The next analysis conducted was a cross-tabulation between the variables of licensure and experience. Experience is defined as whether or not the student has been engaged in any co-teaching experience. Responses were classified as valid or not valid to indicate whether a participant had engaged in a co-teaching experience.

Table 4 indicates that two of the 10 participants reported no co-teaching experience at all. Only two participants reported having a valid co-teaching experience. These two students were being prepared to teach pre-school through 3<sup>rd</sup> grade.

Table 4

*Licensure vs. Experience*

Licensure	Experience		
	none	not valid	valid
Pre-school to 3 <sup>rd</sup> grade	0	1	2
4 <sup>th</sup> to 9 <sup>th</sup> grade	1	2	0
7 <sup>th</sup> to 12 <sup>th</sup> grade	1	3	0
Total	2	6	2

Taken together, an analysis of the relationship between a candidate’s ability to define co-teaching, licensure area, and experience, indicate that those focused on the pre-school to 3<sup>rd</sup> grade are able to provide at least one key term of co-teaching definition have also had authentic experiences with co-teaching.

**Discussion**

A review of both qualitative and quantitative data indicates that none of the participants in this study were able to provide an accurate definition or explanation of co-teaching. When focusing only on key terms, half of the participants being licensed to teach 7<sup>th</sup> to 12<sup>th</sup> grade were able to provide an accurate definition of co-teaching. These participants reported to have learned about co-teaching from classes taken at the university level. Only one participant being licensed to teach pre-school through 3<sup>rd</sup> grade was able to define co-teaching according to key terms. It does appear the preK through 3<sup>rd</sup> grade participants have learned about co-teaching through co-teaching experiences rather than from university coursework. No participants being licensed to

teach 4<sup>th</sup> through 9<sup>th</sup> grade were able to provide at least one key term of co-teaching and none reported any instances of co-teaching experience.

Are pre-service teacher candidates prepared to co-teach in the classroom? From the data collected in this study, the answer is not clear. If an evaluation of candidates' knowledge is based upon the strictest method (being able to define co-teaching using the actual definition from the literature), none of the participants would be considered prepared. However, if the evaluation criteria are relaxed, half of students being licensed to teach 7<sup>th</sup> through 12<sup>th</sup> grade are prepared. Only one-third of those preparing to teach pre-school through 3<sup>rd</sup> grade would be considered prepared for co-teaching. No participants being prepared to teach 4<sup>th</sup> to 9<sup>th</sup> grade would be considered prepared for co-teaching. It is important to note that co-teaching is not learned only through classes. It seems that experience provides knowledge about and preparation for co-teaching for pre-school through 3<sup>rd</sup> grade teacher candidates.

### **Conclusions**

After reviewing the results from the data analysis, conclusions may be made. Because of the number of participants who accurately provided a definition of co-teaching taken with the number of participants who recalled which class they learned about co-teaching, a special educator may have a better chance of co-teaching with a 7<sup>th</sup> to 12<sup>th</sup> grade general education teacher than with pre-school to 3<sup>rd</sup> grade or 4<sup>th</sup> to 9<sup>th</sup> grade teachers. Further, 75%, or 3 out of 4 pre-service candidates responded they would volunteer to co-teach.

Alternatively, because of the inaccurate definitions of co-teaching and inability to provide key terms, attempts to increase co-teaching skills at this particular university

should be focused on pre-school to 3<sup>rd</sup> grade, and 4<sup>th</sup> to 9<sup>th</sup> grade teachers. Preparation for co-teaching for pre-service teacher candidates needs to be more strongly included in the curriculum of all teacher candidates in order to fully prepare them to co-teach in the classroom. Although all the survey participants responded they knew what co-teaching was, none of the participants in the sample, including the special educator, was able to provide an accurate, correct explanation of co-teaching, (i.e., that it involved the education of students with disabilities alongside students without disabilities). It was only after the researcher chose to examine the responses for key terms that a number of participants were coded as having a correct response.

Pre-service teacher candidates need to be made aware of what co-teaching is and how it is defined in order to be prepared to co-teach a class. Perhaps some of this confusion lies within the literature. Many states have adopted their own definition of co-teaching and there are a multitude of models of co-teaching. This undoubtedly leads to confusion. Schools and teacher education programs may want to use a similar language regarding co-teaching to ease this confusion.

### **Implications for Practice**

Today's classroom does not look like it did yesterday. Today, a student with cerebral palsy may be sitting next to a student with a 4.0 GPA. Today, a student with mild retardation may be building a science project with a typical peer, an English Language Learner and a peer with dyslexia. In today's classroom, students with disabilities will be included because today's classroom has two teachers, not one. Co-teaching has gained much attention in the education literature. What is it? What is it not? Does it work? The results from this survey lead to the question, how can we make it better? One answer appears simple--more preparation for pre-service teachers.

Teacher educators prepare teacher candidates for their field of study. They are required to have numerous field experiences before even entering their student teaching, or professional internship. Today's university teacher preparation programs strive to produce excellent teachers, and they do. Findings from this study reveal that one way to produce teachers that are prepared for today's classroom is by offering a curriculum in which co-teaching is imbedded. To return to the earlier question, how can we make it better? The answer seems to be with more co-teaching: more field experiences with co-teaching, more modeling of co-teaching, more practice, and in turn, more collaboration across fields of study.

There are many definitions of co-teaching. States have developed their own definitions (Muller, Friend, & Hurley-Chamberlain, 2009), according to the needs of their state. Similarly, states have also chosen to use different terminology when describing co-teaching (Muller, Friend, & Hurley-Chamberlain, 2009). This can be confusing for some. Institutes of higher learning should be clear in their teacher education preparation programs what terms and definitions are used in the surrounding districts, using a 'common language' with regards to co-teaching (Brownell, Ross, Color, & McCallum, 2005).

It was also revealed that, although there are different models of co-teaching, certain components should exist to be considered co-teaching (Friend & Cook, 2007). Pre-service teachers should be aware of these variations, and be able to identify what an authentic co-teaching relationship looks like.

Collaboration is a large part of co-teaching. Teacher education programs should emphasize the importance of collaboration by blending special educators and general

educators for more class work. If more classes were combined, co-teaching could be modeled by the instructors, and more practice could occur between the general and special educators. This would prepare pre-service teachers not only for co-teaching, but for the expectation of teachers to collaborate with other professionals.

The relationship of co-teaching is complex, and intricacies can be worked through by practicing co-teaching in meaningful field experiences. Murawski (2002) offers suggestions that would benefit pre-service teachers on how to deal with sharing space and responsibilities in a co-taught class. Pre-service teacher candidates should be encouraged to review these strategies before and during their field experiences.

Programs have been developed to address the need for more pre-service co-teaching training. Teacher education programs should collaborate with local school districts to develop their own pre-service program based upon what schools are already doing in terms of co-teaching. Doing this, schools are individualizing their program according to the needs of the local education community and partnerships already developed.

Further, as we learned, many school districts are using co-teaching, pre-service teachers should be placed within these classrooms in order to gain real world perspective on what co-teaching looks like and how to make it work in the classroom. Teachers already co-teaching can model procedure for the pre-service teachers and eventually those pre-service teachers can practice the method in their professional internship. Pre-service teachers should also be placed in a variety of placements in order to learn the spectrum of co-teaching relationships and models.

By implementing these, students with and without disabilities will benefit. The first year teacher will enter today's classroom, one in which co-teaching is the norm, and be prepared and able to educate young people alongside another teacher. The questions, concerns, and confusion regarding co-teaching will have been addressed in the teacher education program. If these recommendations are heeded by teacher education programs, the pre-service teacher candidate will be prepared to teach in today's classroom.

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## Appendix A

**Please explain co-teaching in your own words.**

1. Co-teaching is when there are two teachers in a classroom together, sharing responsibilities, teaching and planning together. Co-teaching refers to the ability to coordinate and communicate with another person to teach children.
2. Teaching with another teacher.
3. You and another teacher both have the same authority within a classroom. You can take turns teaching one lesson during one class period or switch the teaching responsibilities daily. Both teachers remain in the classroom and walk around the room to assist students.
4. Two or more teachers or aides working together to create a positive environment and help the students discover the wonderful world of learning.
5. Collaborating and working with another professional(s) to achieve goals agreed upon by both people, in regards to the education of children.
6. Teaching the same lesson with another teacher. Both teachers are involved in the lesson and share equal responsibilities, this allows students to benefit from both teaching styles.
7. Sharing a classroom with another teacher and working together to instruct the class.
8. Distribution of responsibilities across multiple educators for student learning
9. When two teachers collaborate on lessons to teach. Sometimes, it can be beneficial to combine subjects for deeper, more meaningful learning.

10. Co-teaching is when two or more teachers their subject area teaching responsibilities among themselves. This strategy allows each teacher to focus their efforts toward creating effective and engaging lessons.
11. Co-teaching is when two or more teachers their subject area teaching responsibilities among themselves. This strategy allows each teacher to focus their efforts toward creating effective and engaging lessons.

## Appendix B

**Please explain any experiences with co-teaching you have had (ex: in your Professional Internship)**

1. My teacher and I co-teach all of the time. She gives me responsibilities and she has responsibilities that she fulfills. Our planning is done together and we are team-teachers. In pre-primary I co-taught with the other professional intern. We planned all of our lessons together and worked as a team.
2. My cooperating teachers and I have co-taught together numerous times in my professional internship and it has been a great experience. We both brought different thoughts and ideas to the table and there was a lot more room for growth and creativity.
3. At the beginning of my Professional Internship, my cooperating teacher and I co-taught. She taught a few periods while I taught the others.
4. Have been placed in classroom with aides or multiple teachers.
5. During my partnership experience, I worked with another partnership student. Together we co-planned as well as co-taught on teaching days. We decided upon goals for the students together and thought of ways in which we could set the children up for success and help them achieve those goals.
6. I worked with my cooperating teacher in different aspects throughout the quarter. At first, I had more of an observing and assisting role. As time went on, I gradually took over more responsibility and was teaching the entire class on my own by the end of the quarter and just getting feedback from my cooperating teacher.

7. The only experience w co teaching I have is from 351. I had to make a lesson plan with a social studies education major about slavery on the US.
8. The only experience that I've had with co-teaching was the few weeks before I took on the full course load for my professional internship and the week following the internship when I was phasing back out.
9. My teacher and I have co-taught in the sense that one of us has lead a lesson and the other one has helped do other things in order to make the lesson run more smoothly.