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Margaret Erin Keene

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Co-teaching in Inclusion Classrooms: An Investigation of Secondary Inclusion Practices

By
Margaret Erin Keene

A Dissertation Submitted to the
Gardner-Webb University School of Education
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Education

Gardner-Webb University
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Approval Page

This dissertation was submitted by Margaret Erin Keene under the direction of the persons listed below. It was submitted to the Gardner-Webb University School of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Gardner-Webb University.

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Abstract

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This study was an investigation of co-teaching and inclusion practices at the secondary level. In the explanatory sequential mixed-methods study, regular education co-teachers as well as special education co-teachers offered insights by their participation in a survey and focus groups. This study investigated co-teacher perceptions of inclusion and how their perceptions of inclusion and co-teaching influenced the extent of teacher use of elements of Dr. Friend's co-teaching models. The study also investigated and identified the needs of co-teachers.

Co-teaching is defined as “two or more professionals delivering substantive instruction to a diverse, or blended, group of students in a single space” (Cook & Friend, 1995, p. 1). The development and implementation of co-teaching came as a response to the 1990 revision of the Individuals with Disabilities Education Act and the requirement that students be educated in the Least Restrictive Environment (Shoulders & Krei, 2016). Co-teaching has allowed students with disabilities the opportunity to be supported by an additional teacher as they are educated in regular education classrooms alongside their typically developing peers (Hang & Rabren, 2009). If teacher attitudes and perceptions in the area of inclusion and co-teaching can be identified and articulated and those perceptions can be brought to the attention of principals and district personnel, the learning and instruction of all students in inclusion classrooms may be impacted.

This study found that both regular and special education co-teachers had a favorable view of co-teaching and inclusion. They agreed that it is effective, and co-teaching provided more instructional intensity than teaching alone. This study also found that while One Teach/One Assist was the most used co-teaching model, Team Teaching was identified as the most ideal model for effective co-teaching. In addition, co-teachers cited content knowledge of co-teachers, compatibility of co-teachers, common planning, positive perspectives of inclusion, and training as needs for successful co-teaching.

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Chapter 1: Introduction

Overview

Since the 1990 revision of the Individuals with Disabilities Education Act (IDEA), inclusion classes taught by co-teachers have been the method of choice for educating students with disabilities in the least restrictive environment (LRE). Prior to federal legislation mandating the education of students with special needs in the LRE, students with special needs were rarely educated alongside their typically developing peers (Shoulders & Krei, 2016).

Co-teaching. Defined as “two or more professionals delivering substantive instruction to a diverse, or blended, group of students in a single space” (Cook & Friend, 1995, p. 1), co-teaching was developed as an instructional strategy to allow students with disabilities to receive support in general education classrooms (Hang & Rabren, 2009). Co-teaching is intended to make a wider range of instructional alternatives available to all students, including those with disabilities, than would be possible in a classroom with just one teacher. The delivery of special education services in an isolated setting is considered less desirable than general education and is seen as a last resort that must be justified (Zigmond, 2001).

Inclusion. Inclusion occurs when students with special needs are not excluded from the general education classroom. For example, students with Individual Education Programs (IEPs) may have educational needs that can be met within the general education classroom, if they receive support from a special educator. Co-teaching is one method utilized as a part of an inclusion model (Cook & Friend, 1995). When co-teaching is used in an inclusion classroom, two teachers of equivalent professional status, typically general and special educators, work together in the same classroom and deliver

substantive instruction to a diverse group of students. This diverse group of students includes students who have a range of disabilities and their typically developing peers (Friend, 2007; Hang & Rabren, 2009; Shoulders & Krei, 2016). In a successful co-teaching model, the general education teacher is expected to be a master of content knowledge, and the special education teacher is expected to be the master of understanding academic and behavioral accommodations for students with special needs (Green, 2015).

Challenges. With the shift in focus on educating students with disabilities in the LRE and subsequent addition of students with disabilities to general education classes, the need for effective co-teaching has evolved (Green, 2015); however, the move to inclusion has not been without controversy. As schools work to include students with disabilities in the LRE, significant challenges can occur (Klingner, Vaughn, Schumm, Cohen, & Forgan, 1998).

While some educators boast inclusion as a way for students with disabilities to build social skills, friendships, and relationships, these students are often identified as the least popular or most rejected in the regular education classroom environment (Klingner et al., 1998). Other educators expressed concerns that including students with special needs in the general education classroom may cause the performance of other students to decline due to the focus of the teacher on the few with disabilities (Klingner et al., 1998).

Critical issues. Keefe and Moore (2004) noted that teachers identified major critical issues surrounding co-teaching: the nature of collaboration, roles and responsibilities of co-teachers in the classroom, student outcomes, and professional development. Concerning the issue of collaboration, forming positive relationships between co-teachers and engaging in frank discussions are both important in establishing

effective collaboration. Co-teachers who are identified as collaborative have greater success with students (Cook & Friend, 2010). An issue of roles and responsibilities of co-teachers is roles and responsibilities can have great variability across the teams within settings. According to Keefe and Moore (2004), discussions about roles and responsibilities between co-teachers serve to increase satisfaction in co-teaching partnerships and reduce resentment. The third issue concerning student outcomes is the differing perspectives between regular and special education teachers. While regular education teachers report no negative outcomes for regular or special education students in inclusion classes, special educators sometimes disagree. Special educators express concern that students need to be looked at as individuals, and some special educators believe that some students with special needs need too much extra help to be included in the general education classroom (Keefe & Moore, 2004).

Professional development is an additional critical issue in inclusion and co-teaching. Without adequate and continuous professional development, general education teachers and special education teachers are not able to reach the expectations of being masters of one another's content or specialty; therefore, an overall commitment in schools to listen to teachers and students in inclusion classrooms and support the needs of teachers in order to foster success in inclusion classrooms is paramount (Keefe & Moore, 2004).

Benefits. While there are challenges to inclusion and co-teaching, there are also benefits. Klingner et al. (1998) noted that the general education classroom is more like the real-world experience that the students with disabilities must live in, so inclusion helps prepare them for life outside of school. A large body of research exists regarding co-teaching models used to educate students with disabilities in inclusion classrooms.

Zigmond (2001) asserted, “special education is first and foremost, instruction focused on individual need” (p. 73).

Educational opportunities. Friend (2008) explained that four components make up the rationale for co-teaching. Each component illustrates the benefits co-teaching has on students with disabilities as well as students without disabilities. One benefit to co-teaching is the increased educational opportunities extended to students with mild to moderate disabilities as they are exposed to the traditional curriculum. Additionally, inclusion benefits those students who struggle but do not qualify for special education, as they are exposed to the supports they need to succeed (Friend, 2008). The last group to benefit from co-teaching is the average learner who may be overlooked in a one-teacher classroom. In a co-taught classroom, the average learner has more opportunity to be a part of small learning groups benefiting that student through peer collaboration and support (Friend, 2008).

Reduced fragmentation. Decreasing educational fragmentation is also an added benefit of co-teaching (Friend, 2008). When students leave the regular education classroom to receive special services, instructional time is lost with travel time to the other classroom and set-up time before instruction begins (Friend, 2008). Additionally, when students leave the classroom to receive services, they are missing instruction in the regular education classroom resulting in the special education student being behind in what was taught while they were out of the classroom (Friend, 2008). “The impact of moving students between settings is that those who need the most instructional time receive the least time among all the students in the school” (Friend, 2008, p. 48).

Reduced stigma. Co-teaching also has the benefit of reducing the stigma surrounding special education, as students are not pulled out for instruction but are

educated alongside their peers (Friend, 2008). “One goal of co-teaching is to reduce or eliminate this stigma by making education seamless and the disability part of the learning variations that can be found in any classroom” (Friend, 2008, p. 49).

Professional support. The fourth rationale for co-teaching is creating a professional support system. In a profession that can be isolating, co-teaching offers the benefit of camaraderie in a co-teaching partnership. Other benefits for the co-teachers include providing added perspective on teaching practices, reaching diverse students, classroom management, and instruction (Friend, 2008).

Statement of the Problem

The candidate served as a general education teacher in co-taught secondary math courses in both the school district studied as well as in a high school in Maryland. During this research study, the candidate was in her sixth year of co-teaching. At both schools, co-teaching was assigned to the candidate by administration, yet no training in co-teaching was offered. The candidate embraced co-teaching, even in the absence of a real understanding of the processes needed for effectiveness.

The candidate came to realize through conversations with both special education and general education co-teachers that there was quite a bit of variance in the amount and type of training co-teachers in East School District (pseudonym) received. An expectation existed for teachers in East School District to co-teach, despite inadequate training. In addition, there were wide differences in how co-teaching was implemented from classroom to classroom.

This mixed-methods study of co-teaching in East School District’s two high schools was needed to gain a better understanding of teacher perceptions of co-teaching and inclusion and how teacher perceptions influence the way in which co-teaching

models are implemented in inclusion classrooms. In addition, it was important to identify and understand what teacher needs are concerning effective co-teaching. An investigation of perceptions of co-teaching and inclusion in East School District offered insight into how the co-teaching program was implemented in East School District high schools.

The basis of all evaluation is to determine merit, worth, and effectiveness. It seeks to examine and describe to ultimately determine value (Fitzpatrick, Sanders & Worthen, 2011). This study sought to determine teacher perceptions concerning merit, worth, and effectiveness. The study offered an understanding of multiple cases of inclusion and how they were implemented in the district. Since the data were limited to East School District, district leaders, administrators, teachers, and counselors stood to gain an understanding of processes needed for improving co-teaching and inclusion effectiveness in East School District. Collected data may be used to make decisions concerning co-teaching and inclusion in the two high schools.

Organization of this Chapter

Chapter 1 provides an overview of the East School District, followed by a review of the literature related to the topic of co-teaching in inclusion classrooms. Deficiencies in the literature will also be explained and will demonstrate how the study will add to the existing research. Next, the importance of the study will be described, and the problem statement and purpose statement will be given. The study design and research questions will follow. The theoretical framework that shapes the study will be previewed. Key terms will be defined, followed by a description of the scope, limitations, and delimitations of the study. Chapter 1 will conclude with a brief summary of the topic and purpose of the study.

Overview of East School District. East School District serves a suburban area in the southeastern portion of the United States. The town has been in a tremendous growth pattern over the past 20 years. The district has gone from having one elementary school, one middle school, and one high school to having eight elementary schools, five middle schools, and two high schools with plans to add a new high school and a new middle school in the near future. ABCHS was the original high school in the district and was split in 2008 to create a new high school and alleviate overcrowding. The current principal has been at ABCHS for 10 years and was an important part of making the transition to two high schools. XYZHS opened in 2008 and has seen high administrative turnover throughout its existence with the current principal being in his third year at XYZHS.

Students. At the time of this study, ABCHS served 2,223 students. Caucasian students made up 78.5% of the school population, while 8.5% of students were African-American, 5.8% were Hispanic, 3.3% were Asian or Asian/Pacific Islander, and 3.6% were two or more races. Of the 2,223 students, 15% received free or reduced price lunch. XYZHS served 2,112 students. Caucasian students made up 68% of the school population, while 14% of students were African-American, 9% were Hispanic, .0009% were Asian or Asian/Pacific Islander, and 5% were two or more races. Of the 2,112 students, 21% received free or reduced price lunch. Both high schools employed inclusion and co-teaching as an instructional strategy. ABCHS had 115 students with special needs who received instruction in one or more inclusion classrooms. XYZHS had 262 students with special needs who received instruction in one or more inclusion classrooms.

Administrators and teachers. At the time of this study, ABCHS's administration

was made up of one principal and five assistant principals. There were four male Caucasian administrators, one female Caucasian administrator, and one female African-American administrator. ABCHS had 119 teachers, 66% of whom had advanced degrees. XYZHS's administration was made up of one principal and four assistant principals. There was one male Caucasian administrator, three female Caucasian administrators, and one male African-American administrator. XYZHS had 115 teachers, 70% of whom had advanced degrees. At each school, administrators were assigned a particular grade level and list of administrative duties.

Daily operations schedule. High schools in East School District were run on a 4x4 block schedule, and classes were 90 minutes each. Students attended four classes per day during each semester.

Related Literature

Inclusion classrooms gained popularity and support as the No Child Left Behind Act (NCLB) and IDEA legislation influenced the demand for LREs for students with disabilities. One result of the implementation of inclusion classrooms is the expectation that students will receive better instruction and experience greater success as they receive more individual attention and varied teaching strategies (Hassall, 2007).

Models of co-teaching. Dr. Marilyn Friend, an expert in co-teaching, described six different co-teaching models. The six co-teaching models are summarized in Table 1 and discussed in greater detail in Chapter 3.

Table 1

Six Co-Teaching Models (Friend, 2008)

Co-teaching models	Description
Station teaching	Teachers provide instruction to individuals at stations as students rotate through.
Parallel teaching	Students are divided into two groups and each teacher works with a group to present material in the same way or in two different ways.
Team teaching	Students remain in a single group and teachers co-instruct.
Alternative teaching	Most students remain with one teacher while the other teacher works with a group of students for enrichment, re-teaching, etc.
One Teach/One Assist	One teacher leads instruction to the entire group while the other teacher interacts briefly to answer questions, offer assistance and focus student attention.
One Teach/One Observe	One teacher presents the lesson while the other teacher observes and assists students as needed.

Friend (2008) asserted that One Teach/One Assist should be the least often employed co-teaching approach. Additionally, Friend (2008) indicated that while team teaching is the most complex, it is also the most satisfying model in which to teach.

Collaboration. Collaboration and the relationship between co-teachers is important when examining effectiveness of co-teaching. Teachers need to know how to foster effective inclusion classrooms and co-teaching relationships in order to promote a successful learning environment (Cook & Friend, 2010). They need to be able to teach and interact seamlessly within a visible partnership. Should either teacher see something needing to be addressed or improved, he or she should take the responsibility to improve it immediately (Murawski & Deiker, 2004). Co-teachers should also be able to speak constructively to one another and make improvements and adjustments to procedures

(Hassall, 2007). Meaningful collaboration binds a successful inclusion classroom program together. Administrators, general educators, school psychologists, etc. should collaborate to ensure students are well served (Worell, 2008).

Deficiencies in the Literature

The literature provides educators with a plethora of information regarding co-teaching best practices; however, there is a deficiency in the literature regarding teacher perceptions of co-teaching and inclusion and how teacher perceptions influence the way in which co-teaching models are implemented in inclusion classrooms. Researchers have taken steps to understand the dynamics of team teaching but have not consulted the teachers themselves on their attitudes concerning co-teaching; what they need, expect, or appreciate in their collaborative teaching relationships; and what perceptions they bring to the co-teaching partnership. Co-teaching is based on both teachers providing a substantial amount of the instruction in a general education setting. It is expected to give all students in the classroom the opportunity to experience a wider range of instructional strategies. It is also expected to improve outcomes for students with disabilities (Friend, 2007). This study focused on co-teaching in inclusion classrooms at the secondary level and added to existing research by identifying and analyzing teacher perceptions of effective practice and needs as related to co-teaching in an inclusion classroom.

Purpose Statement

The purpose of this mixed methods sequential explanatory study was to explore methods identified and used by general and special education co-teachers. This study investigated how their perceptions of inclusion and co-teaching influenced the extent of teacher use of elements of Dr. Friend's co-teaching models. The study also investigated and identified the needs of co-teachers.

Importance of the Study

If teacher attitudes and perceptions in the area of inclusion and co-teaching can be identified and articulated and those perceptions can be brought to the attention of principals and district personnel, the learning and instruction of all students in inclusion classrooms may be impacted. An investigation of several cases of secondary inclusion practices offered teacher perceptions of co-teaching and what effective supports were already in place and what supports might still be needed to add to the success of inclusion and co-teaching. As a result of the study, co-teaching across the district could become more effective in reaching general education students as well as students with disabilities in the inclusion classroom.

This study included an identification of needs within inclusion classrooms, identified by regular and special education co-teachers. By identifying needs, teacher leaders and school administrators can reflect on the findings to evaluate inclusion classrooms at their site to ensure effective practices.

Research Questions

This study analyzed data collected from surveys and interviews of regular education and special education co-teachers. Survey and interview data sought to answer the following research questions.

1. What are co-teacher perceptions of co-taught inclusion classes?
 - a. What are special education co-teacher perceptions of co-taught inclusion classes?
 - b. What are regular education co-teacher perceptions of co-taught inclusion classes?
2. To what extent are elements of Friend's co-teaching models being used in co-

taught inclusion classes?

3. What needs do co-teachers identify as important to the success of co-teaching?

Data were triangulated through the use of a survey and a focus group in order to answer and make recommendations related to the research questions and the overall investigation of co-teaching practices and teacher perceptions of co-teaching.

Overview of Methodology

Quantitative and qualitative data were first collected using a survey. All 27 co-teachers (regular and special education) at both high schools were contacted and invited to participate in the study. The survey was sent to teachers via an email that included a link provided by SurveyMonkey. The survey was followed by focus groups with a sample of both special education co-teachers and regular education co-teachers in order to clarify and explain survey data.

Theoretical Framework

Research was based on the co-teaching theory of Dr. Marilyn Friend. Friend's six co-teaching models were used to assess which models study participants at the two high schools put into practice. Cook and Friend (1995) offered guidelines for creating effective co-teaching practices. Their framework is based on 10 questions that guide co-teaching program development and will be presented in Chapter 2. The candidate also used Friend's (2008) work on training and professional development to shape survey and interview questions and to evaluate data results. The three research questions were developed and aligned to the theoretical framework of Cook and Friend (1995). Research questions were answered through research of teacher perceptions of inclusion and co-teaching for this research study. Friend's (2008) six co-teaching models as well as Cook

and Friend's (1995) guidelines for creating effective co-teaching practices will be explained in more detail in Chapter 2. The use of the Cook and Friend's (1995) framework throughout the study will be further explained in Chapter 3.

Nature of the Study

This study investigated teacher perceptions of co-teaching and inclusion, the extent to which Dr. Friend's co-teaching models were utilized, co-teachers' rationale for using identified co-teaching models, and the needs of co-teachers. An explanatory mixed-methods design was used involving collecting quantitative data in the first phase and then explaining the quantitative results in the second phase with in-depth qualitative data (Creswell, 2014). The mixed-methods design used the qualitative data to interpret and add understanding to the quantitative data. Creswell (2014) stated that the qualitative data in the second phase serves to add depth to the quantitative results. Tools discussed by Butin (2010), including surveys and focus groups, were used in research. Ravitch and Riggan (2017) stated, "because conceptual frameworks are closely linked to research design, development in one leads to development in the other" (p. 76). The theoretical framework was linked with the research questions and design.

In the first phase of the study, quantitative survey data were collected from both general and special education co-teachers from two high schools (Grades 9-12) in the district being studied. The survey assessed teacher perceptions of co-teaching in an inclusion classroom, co-teaching models identified by co-teachers as being used for instruction, and needs as identified by co-teachers. The second, qualitative phase was conducted as a follow up to the quantitative results. In this exploratory follow-up, teacher perceptions of inclusion and co-teaching identified in the survey were further explored as well as the extent to which co-teaching models were implemented with

subject area and special education teachers at the high school level.

Surveys. By giving a survey, the candidate was able to ask several questions of a larger number of people which helped to give a big picture of teacher training, experience, methods used, selection as a co-teacher, and perceptions of inclusion and co-teaching. The entire population of 27 co-teachers at the two high schools were invited to participate in the study.

Focus groups. From the surveys, the candidate was able to establish themes that help to shape focus group questions. The three research questions were thoroughly examined through focus groups in order to further understand regular and special education co-teacher perceptions of inclusion and co-teaching practices.

Key Terms

Collaboration. A vehicle for achieving shared goals in which two or more individuals work together to accomplish a goal that could not have been accomplished with the same quality individually (Friend, 2000).

Co-teach. Two teachers who share responsibility for teaching a content class. Co-teachers jointly conduct instruction in a coordinated fashion to ensure success of all students (Murawski & Deiker, 2004). In this study, one of the teachers is the regular education teacher (content specialist). The other teacher is the special educator.

General education students. Students who are described as typically developing. Students who do not have not been identified as having a specific learning disability (Center for Inclusive Childcare, 2017).

General education teachers. Teacher who is licensed to teach a particular content area (Center for Inclusive Childcare, 2017).

Inclusion. The inclusion of students with disabilities in the regular education

classroom setting (Klingner et al., 1998).

Inclusion classroom. A regular education classroom in which regular education students are taught alongside students with disabilities. The same curriculum and standards are covered with all students (Klingner et al., 1998).

Special education teachers. Teacher who is licensed to teach students with disabilities (Center for Inclusive Childcare, 2017).

Students with disabilities. Students who have a specific learning disability. A specific learning disability is demonstrated by a significant discrepancy between a pupil's general intellectual ability and academic achievement in one or more of the following areas: oral expression, listening comprehension, mathematical calculations or mathematical reasoning, basic reading skills, reading comprehension, and written expression; demonstrated primarily in academic functioning but may also affect self-esteem, career development, and life adjustment skills (Center for Inclusive Childcare, 2017).

Assumptions, Scope, and Delimitations

Assumptions. An assumption for this study was that co-teaching and inclusion classrooms will continue to be important in the high school program. NCLB in 2001 and the reauthorization of IDEA in 2004 set two requirements for the education of students with disabilities. The first requirement allowed students with disabilities access to the general curriculum. The second requirement of NCLB and IDEA specifically supports the assumption that co-teaching and inclusion will continue to be important as it allowed students with disabilities access to the general curriculum in the LRE. The LRE has been increasingly determined as the general education classroom (Cook & Friend, 2010). Another assumption was that co-teachers who take part in the survey would answer

questions honestly. Anonymity and confidentiality were preserved throughout the survey process. Participation in the survey was voluntary, so the assumption was likely met.

Scope. Two secondary schools located in a suburban town in the southeast were selected for the research study. The voluntary participation of all regular and special education co-teachers was solicited for this research study.

Delimitations. The research study was restricted to co-teachers at two high schools in one district. The study was limited by the absence of perspectives of administrators and district personnel pertaining to inclusion and co-teaching. While school administrators and district personnel do not provide direct instruction to students in inclusion classrooms, they do make program decisions that are then implemented by teachers. Their perception of inclusion in general can shape those program decisions and the fidelity with which inclusion and co-teaching are implemented; however, the study aimed to understand teacher perceptions of inclusion and co-teaching and focused heavily on the practice of co-teachers. Since administrators do not provide daily instruction in inclusion classrooms, they were excluded from the study. In addition, the study involved high schools in only one school district in the southeast U.S. that incorporated the use of co-teaching. Due to the geographic region, demographics, and socioeconomics of the region, the level of generalizability was not as desired.

Limitations

The study took place with a relatively small population of teachers. Two high schools in a suburban town in the southeast U.S. were examined. The use of only two high schools limited the scope of data collected and imposed several threats to external validity.

Internal validity was threatened since the entire population of co-teachers did not

participate in the research survey. Creswell (2014) described participants dropping out of a study as “mortality.” When participants drop out of a study, “the outcomes are thus unknown for these individuals” (Creswell, 2014, p, 175). The entire population of co-teachers at the two high schools was invited to participate in the research survey. Thus, co-teachers who decided not to participate affected the internal validity and generalizability of the research findings at the district level.

Summary

NCLB and IDEA legislations have influenced the demand for LREs for students with disabilities. Inclusion of students with disabilities in regular education classrooms has been the response to this legislation, and students with disabilities are now learning alongside regular education students. In addition, special education teachers are now teaching alongside regular education teachers in co-taught, inclusion classrooms.

While there is extensive literature on best practices for co-teaching, many teachers in the chosen district have alluded to needing more professional development in the area of inclusion and co-teaching. Additionally, in the general population of teachers, there are teachers who oppose or resist inclusion and co-teaching because of the additional time it might require of them or their feelings of inadequacy (Scruggs & Mastropieri, 1996). This study sought to examine teacher perceptions of the effectiveness and needs of inclusion and co-teaching.

Chapter 2: Literature Review

Introduction

Co-teaching is a practice that affects students with disabilities as well as the regular education students who are a part of inclusion classes (Hang & Raben, 2009). In a co-taught inclusion class, the general education teacher is expected to be a master of content knowledge, and the special education teacher is expected to be the master of understanding academic and behavioral accommodations for students with special needs (Friend, 2007; Green, 2015). In addition, students with disabilities at the secondary level who are enrolled in inclusion classes are expected to meet the same high academic standards as their peers who do not have disabilities (Murawski & Dieker, 2004).

Co-teaching involves teachers jointly planning and conducting instruction in a coordinated fashion in order to ensure the success of all students in the class (Friend, 2007; Murawski & Dieker, 2004). True co-teaching involves cooperation between teachers in the planning of instruction, the delivery of instruction to students, and the assessment of students. Co-teachers must work together to determine what instructional techniques will be most effective as well as most efficient in helping all students meet the standards being taught (Murawski & Dieker, 2004).

IDEA of 2004 stated that any student who is entitled to an IEP must receive specially designed instruction that connects directly to the student's IEP goals and documented needs. Co-teachers in inclusion classrooms are responsible for providing specially designed instruction to students with IEPs while also providing content knowledge according to the standards (Friend, 2015). In addition to seeking good co-teaching practice, administrators and instructional coaches should be looking for evidence that co-teachers know and are familiar with student IEP goals and are

implementing strategies and techniques that will lead to students achieving those goals. “The aim of co-teachers is to create a classroom culture of acceptance in which learning variations and strategies to address those variations are the norm” (Friend, 2015, p. 21).

Organization of this Chapter

This chapter includes a literature review of inclusion and co-teaching, beginning with an historical background of the education of students with disabilities. The evolution and addition of inclusion and co-teaching to education will be explored. The theoretical framework for this study, based on Cook and Friend’s (1995) guidelines for creating effective co-teaching practices, will be described. Next, barriers to effective co-teaching will be explained. Finally, current literature concerning teacher perspectives of co-teaching will be presented.

Historical Background

The latter part of the 19th century in the United States brought about the expression of concerns for the welfare of children and adolescents (Bullock & Gable, 2006). In 1902, at a meeting of the National Education Association, the term special education was introduced for the first time (Osgood, 2005, as cited by Green, 2015). In the United States, prior to the mid-20th century, family members were responsible for the education and primary care for individuals with disabilities. Individuals with disabilities were excluded from the public and from community activities. Beginning in 1907, individuals with disabilities in the United States were subjected to involuntary sterilization. Involuntary sterilization was done in an effort to prevent the passing of unfavorable human traits to the next generation. As many jobs were left vacant during World War II, the war brought about the first demonstration of how individuals with disabilities were beneficial to the workforce and had valuable competencies. They filled

vacant jobs and performed well in the workforce (Karten, 2008).

The National Employ the Physically Handicapped Week was established in 1947 to increase awareness of individuals with disabilities and their value in the workplace. National Employ the Physically Handicapped Week was updated in 1962 when Kennedy removed “physically” from the name in recognition of the fact that disabilities reach beyond physical ones (Karten, 2008).

In 1954, *Brown v. Board of Education of Topeka* formed the basis for two major court cases as it impacted integration as well as other civil rights movements both in education and outside of education; however, segregation of students with special needs was still commonplace in education as educators believed that it was in the best interest of regular students as well as disabled students to be educated separately (Karten, 2008).

While civil rights for all individuals were part of a national agenda moving into the 1970s, Itkonen (2007) asserted parents were a catalyst for change and were at the center of advocacy. Change had the potential for direct impact on their children’s well-being, so parent groups formed and mobilized to support one another in advocating for change and the services their children needed. Precursors to P. L. 94-142 were two court cases in which parents challenged the school systems and fought for their children to have access to public education (Itkonen, 2007).

Up until this time, schools had the freedom to turn down enrollment to students with disabilities. According to Itkonen (2007), these court cases argued that denying access to education was a violation of the U.S. Constitution’s due process law. The passage of P. L. 94-142 was not without hurdles. President Ford had concerns about the financial costs of a national special education policy and thus opposed it before being persuaded by his aides to pass the law in 1975 mandating a free, appropriate public

education in the LRE possible to all children with disabilities (Bullock & Gable, 2006; Itkonen, 2007; Karten, 2008).

In 1990, P. L. 94-142: The Education for All Handicapped Children Act was retitled and became IDEA (Bullock & Gable, 2006). NCLB was proposed by President G. W. Bush in 2001 and signed into law in 2002. NCLB included educational improvements through increased accountability for students and teachers, more effective teaching methods, and access to promising futures regardless of socioeconomic levels. IDEA was revised and reauthorized in 2004 to become Individuals with Disabilities Education Improvement Act of 2004 (IDEIA; Karten, 2008). “With the recent reauthorization of Individuals with Disabilities Education Improvement Act of 2004 and NCLB, special education is slowly being re-framed from a civil rights statute to an education law” (Itkonen, 2007, p. 13). IDEIA included increased participation of parents in student IEPs and periodic (quarterly) progress monitoring of students with disabilities based on IEP goals. IDEIA also advocated for teachers to have better preparation, knowledge, and skills for teaching students with disabilities. Before IDEIA, there was a focus on compliance with law concerning students with disabilities. Since IDEIA, a focus on outcomes for students with disabilities has become a priority rather than simply compliance (Karten, 2008).

The Evolution of a Need for Co-teaching

The proposal of NCLB in 2001 and the reauthorization of IDEA in 2004 set two requirements that fostered collaboration between teachers and other professionals for the benefit of students with disabilities. The first requirement allowed students with disabilities access to the general curriculum. The second requirement allowed students with disabilities access to the general curriculum in the LRE, most often determined as

the general education classroom (Cook & Friend, 2010). IDEA specifically defined LRE:

To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. (IDEA, §300.114(a))

From 1975 until 2001, questions concerning how a child received services, what services they were entitled to, and what strategies were used for instruction were dictated by federal special education law; thus, Friend (2008) asserted “one area in which NCLB has had a significant impact is co-teaching” (p. 37). Friend (2008) suggested that special educators suggested co-teaching long before the NCLB or IDEA, “proposing that students with disabilities could succeed in general education classrooms if their teachers forged partnerships so that both high expectations and individualized support could be addressed there” (p. 46).

As more students moved to the regular education classroom to meet the requirement of LRE, special education teachers experienced smaller and smaller class sizes. With budget and funding issues, it became necessary to move special educators from their own classrooms where they served only students with disabilities into regular classrooms to teach with regular educators (Green, 2015; Shoulders & Krei, 2016).

The LRE has led to widespread implementation of inclusion and co-taught classrooms. “A special benefit of inclusion is that it teaches disabled children to grow up as members of a non-disabled society and function with the rest of their peers the way

they normally would” (Green, 2015, p. 35). Another bonus is that it helps to foster appreciation of disabilities for the students who do not have disabilities (Green, 2015). A school that effectively integrates co-teaching welcomes all students no matter their strengths or weaknesses. These schools are committed to helping all students learn and all teachers in the school contribute to an inclusive school culture (Friend, 2007).

Theoretical Foundation

In co-teaching, two teachers of equivalent professional status are responsible for a diverse group of students. This partnership typically involves a classroom teacher and a special education teacher who instruct a group of students that includes several students with disabilities or other special needs (Friend, 2007). Co-teaching partnerships also allow for a greatly reduced student-teacher ratio. Instead of one teacher for 25 students, co-teaching allows for two teachers in a class of 25 students. Another advantage of co-teaching is that it allows one teacher to focus on content and the curriculum while the other focuses on the learning process. Each teacher brings unique areas of emphasis to the classroom (Friend, 2007). This section will explore Cook and Friend’s (1995) guidelines for effective co-teaching as guided by 10 questions answered by the authors. The theoretical framework will serve to support each of the research questions presented in Chapter 1.

Cook and Friend’s framework of effective co-teaching. Co-teaching has been implemented in schools as a part of inclusive practices in which students with special needs are included in the regular education classroom. When considering the implementation and design of co-teaching in their schools, teachers and administrators question how to set up programs that are effective and responsive to student needs while being perceived by teachers as feasible (Cook & Friend, 1995). Cook and Friend (1995)

provided 10 questions to use as a guide for co-teaching program development.

1. What do we mean by co-teaching?
2. What is the rationale for co-teaching?
3. When is co-teaching the appropriate instructional strategy?
4. What does co-teaching look like?
5. Who should be involved in co-teaching?
6. How much co-teaching should take place?
7. How can co-teachers maintain a collaborative working relationship?
8. What do co-teachers need to be successful?
9. How does one plan for a co-teaching program?
10. How should co-teaching be introduced?

Through the use of questions, professionals planning to co-teach can reflectively make deliberate choices about their options for service delivery. Cook and Friend (1995) did not provide a single set of “right” answers but a set of questions that spur reflections and careful, deliberate consideration for the implementation and evaluation of co-teaching. In the next section, each question is elaborated upon including explanations and considerations to make when using co-teaching in inclusion classrooms.

What do we mean by co-teaching? Cook and Friend (1995) asserted that, first, it is important for co-teachers to have a similar understanding of what co-teaching is. Co-teaching is defined as “two or more professionals delivering substantive instruction to a diverse, or blended, group of students in a single space” (Cook & Friend, 1995, p. 1). Cook and Friend added that there are four key components to the definition of co-teaching.

First, co-teaching involves at least two educators. For the purpose of this study,

the candidate will limit the definition to specifically include a special education teacher and a general education teacher as the two educators. “General educators who specialize in understanding, structuring, and pacing curriculum for groups of students are paired with special educators who specialize in identifying unique learning needs of individual students and enhancing curriculum and instruction to meet those needs” (Cook & Friend, 1995, p. 2).

Second, the definition of co-teaching specifies that both educators in the classroom deliver a substantive amount of instruction. Both teachers are active in their role of instructing students (Cook & Friend, 1995). Meeting the needs of individual students in a diverse classroom is the purpose of co-teaching. In order for true co-teaching to occur, co-planning, co-instructing, and co-assessing should take place within the classroom (Murawski & Dieker, 2008).

Third, co-teachers teach a diverse group of students that includes students with special needs. In this situation, students with IEPs who are in the general education classroom have needs that can be met within the general education classroom if they receive support. As a result, their support in the form of a special education teacher is moved to the general education classroom, utilizing co-teaching as an instructional arrangement (Cook & Friend, 1995).

Fourth, co-teaching instruction takes place primarily in a single setting or classroom space. While, at times, groups might be separated for instructional activities, the majority of instruction is done in the same physical space (Cook & Friend, 1995).

What is the rationale for co-teaching? Cook and Friend (1995) provided four explanations as rationale for using co-teaching to deliver instruction.

First, co-teaching increases instructional options for students. Co-teaching

provides the opportunity for students to benefit from a lower student-teacher ratio while also benefitting from an expanded set of instructional strategies provided by two teachers (Cook & Friend, 1995; Scruggs & Mastropieri, 2017).

Second, co-teaching improves program intensity and continuity. Co-teaching “provides opportunities for greater student participation and engaged time” (Cook & Friend, 1995, p. 4). NCLB and LRE “set the conditions for which the logic of co-teaching was a perfect match” (Scruggs & Mastropieri, 2017, p. 285).

Third, there is a reduction in stigma for students with special needs. The co-teaching framework described by Cook and Friend (1995) stressed that students with disabilities in co-taught, general education classes are taught the general education curriculum with necessary modifications and support. Students with disabilities are included in the general education classroom and are not pulled aside to receive instruction (Cook & Friend, 1995).

The last rationale for co-teaching as described by Cook and Friend (1995) is an increase in professional support experienced by co-teachers. Co-teachers are there for one another through the best and worst lessons. They can “work together to more sensitively gauge student needs at any particular moment of instruction” (Cook & Friend, 1995, p. 5).

When is co-teaching the appropriate instructional strategy? A number of factors play a role in determining if co-teaching is an appropriate instructional strategy. “The instructional strengths and needs of special needs students and typical students alike should be examined and deemed to be compatible and manageable by two teachers within a single classroom” (Cook & Friend, 1995, p. 5). One factor to consider is whether the general education curriculum is appropriate for the student(s). The nature

and intensity of support the student will need in order to benefit from general education curriculum should be considered when determining if a co-taught setting is appropriate. The basic content of the curriculum should be preserved as modifications and/or accommodations are made. If direct instruction is necessary and substantial changes to the curriculum need to be made, a co-taught, general education classroom is not appropriate (Cook & Friend, 1995).

When considering co-teaching, the ecology of the classroom should be considered as well as the personality and demeanor of the classroom teacher. An attempt to use co-teaching as a remedy for poor teaching should not be considered and is a misuse of the co-teaching model (Cook & Friend, 1995). In addition, a co-teacher should not be an assistant in the room whose function is to help or tutor one or two students.

Unfortunately, co-teachers often complain that this situation is what is happening in the classroom. Instead, co-teaching by sharing responsibility, instruction, and accountability should be used to provide services to students in the LRE (Murawski & Dieker, 2008).

What does co-teaching look like? Each teacher in a co-teaching partnership brings important knowledge and skills to the classroom. Their unique contributions mean that they are not interchangeable but are equally valued for their contributions (Friend, 2015). Teachers need to know how to foster effective inclusion classrooms and co-teaching relationships in order to promote a successful learning environment (Cook & Friend, 2010). They need to be able to teach and interact seamlessly with a visible partnership. Should a teacher see something that needs to be addressed or improved, they should take the responsibility to improve it immediately (Murawski & Dieker, 2004).

There exists an array of classroom arrangements that can be utilized for co-teaching. These arrangements allow for instructional strategies that could not be

incorporated with just one teacher in the classroom (Cook & Friend, 1995). In Chapter 1, six co-teaching methods were described in Table 1. Those models include station teaching, parallel teaching, team teaching, alternative teaching, one teach/one assist and one teach/one observe. Cook and Friend (1995) argued that no one approach is better or worse than the others. Rather, each one is appropriate at different times.

Who should be involved in co-teaching? Co-teachers must consider how comfortable they are with letting someone else teach and carry out tasks at which they are particularly skilled. They also have to consider how comfortable they are with exposing their weaknesses in teaching to their colleague. Additionally, co-teachers should be open and mindful to the fact that there is more than one way to do things and be willing to discuss, compromise, and reach a consensus with their co-teacher. They must also be willing to respectfully approach disagreements or concerns with their co-teacher (Cook & Friend, 1995). Volunteering is also important in deciding who should be involved in co-teaching. According to Thompson's study in 2001, teachers indicated it was important that co-teachers volunteer to teach with one another (Scruggs, Mastropieri & McDuffie, 2007). Those individuals who volunteer to co-teach experience more satisfaction and effectiveness than those who do not volunteer (Cook & Friend, 1995). "Co-teaching is not a comfortable arrangement for all professionals. The issues of sharing responsibility, modifying teaching styles and preferences, and working closely with another adult represent serious challenges for some educators" (Cook & Friend, 1995, p. 9).

How much co-teaching should take place? There is no definitive answer for the amount of co-teaching that should take place. The decision to incorporate co-teaching depends on several factors and is ultimately a decision that should be made by the local school district and at school levels (Cook & Friend, 1995). A few factors to consider

include the size and grade levels of the schools, class distribution of students with IEPs and how many are in each class, the number of disciplines in which specialists are available to co-teach, how much administrative support is offered, the responsibilities of co-teachers and other roles they may hold, the stability of school enrollment as it pertains to caseload, and relevance of individual IEPs to general education curriculum (Cook & Friend, 1995). The availability of teachers as resources plays a large role in the number of co-teaching partnerships that can be formed.

How can co-teachers maintain a collaborative working relationship? At the heart of co-teaching is collaboration. Friend (2000) asserted, “collaboration is a vehicle for achieving shared goals” (p. 131). She warned, though, that not every shared effort within schools is true collaboration. As special educators often serve as co-teachers for several different classes, there is a pressing need to set priorities about what is worth collaboration and when it should be done. Collaboration should lead to results that can be documented, not simply a feeling of positivity which is often a by-product of collaboration (Friend, 2000). According to Cook and Friend (2010), schools identified as collaborative have greater success with students. The experience of greater success due to collaboration holds true even when students with disabilities are included (Cook & Friend, 2010). In their metasynthesis, Scruggs et al. (2007) indicated that time to plan was a negative issue frequently noted by co-teachers. Co-teachers felt that their planning and collaboration time was sacred, though often scarce (Scruggs et al., 2007).

In order to maintain a collaborative working relationship between co-teachers, there are several topics the participating teachers need to discuss and come to a consensus on prior to entering a co-teaching relationship and then again periodically as they work together. Creating a working co-teaching partnership involves teachers discussing topics

such as getting to know one another by sharing their hopes for the co-teaching situation, sharing their attitudes and philosophy regarding teaching students with disabilities, discussing responsibilities, and discussing expectations in the classroom. It is best to address matters while they are still small rather than waiting until they become major issues (Cook & Friend, 1995). Co-teachers must also create a workable schedule for co-teaching and for planning (Murawski & Dieker, 2004).

If partners of co-teaching do not agree on their beliefs about the ability of all children to learn, the rights of children to experience success in their classroom, regardless of their ability level, and their own role in student learning, they are likely to encounter difficulties when they share a classroom. (Cook & Friend, 1995, p. 13)

Topics for co-teachers to discuss and come to a consensus on include planning time, ways to signal parity to parents and students, confidentiality and an understanding of what can be shared outside the classroom, classroom noise level, classroom routines, student discipline, feedback to students, and individual pet peeves. Opinions and preferences need to be shared with one another. Co-teachers should also realize that there is usually no one way that is either right or wrong. There are only differences that need to be addressed before becoming a source of annoyance for one co-teacher or the other (Cook & Friend, 1995).

What do co-teachers need to be successful? Cook and Friend (1995) cited two things that co-teachers need to be successful: professional preparation and administrative support. Professional preparation for co-teachers includes both preservice and in-service preparation for teachers. Teachers should be trained prior to implementing co-teaching, as co-teaching is not intuitive to teachers. “Although this appears to be an obvious action

step, it seldom occurs” (Nierengarten, 2013, p. 75). While teachers are often formally prepared to work in isolation from one another, co-teaching involves additional skill development. Co-teachers must be trained with the skills to collaborate, communicate, and plan instruction as a team. Additionally, special education teachers might need the opportunity to learn more about specific curriculum, while regular education teachers might need the opportunity to learn more about students with disabilities. As teachers participate in co-teaching, these opportunities might take place through the co-teaching experience (Cook & Friend, 1995).

Co-teachers also need administrative support in order to be successful. Support, commitment, and motivation of the administration causes a ripple effect as teachers are influenced and become more willing to take on the risk of attempting a new strategy (Nierengarten, 2013). Administrative support is needed in the areas of scheduling and planning programs, reflection about changes that need to be made to enhance the way services are provided, and support in setting priorities in order to preserve co-teaching time. “Committing resources to enhancing the preparation of co-teaching partners, participating with them in training activities, and scheduling additional planning time for co-teachers also are valued signs of administrative support” (Cook & Friend, 1995, p. 16). According to research completed by Thompson in which 11 co-teachers spoke on behalf of a group of co-teachers, the primary need for co-teaching to be successful is administrative support (Scruggs et al., 2007). In the study, picking the right teacher was number two after administrative support for ensuring successful co-teaching (Scruggs et al., 2007).

How does one plan for a co-teaching program? Appropriate, advanced planning has the benefit of reducing frustration and stress that often results from poorly planned

implementation. “Planning not only is useful in preparing for implementation, but also is important in clarifying, for all involved, the specific expectation and changes the program entails” (Cook & Friend, 1995, p. 16). Establishing a planning structure is an important part of planning for co-teaching. Part of the planning should involve the training of administrators to make them aware of the demands of inclusion and co-teaching as well as the skills required for successful implementation of co-teaching. After training, administrators can then provide vision, goals, and support to co-teachers (Nierengarten, 2013).

Schools should have a committee or task force who will be most involved in making decisions about co-teaching. Also important is an agreed-upon description of the program. In order to discover points of confusion and ambiguity in their understanding of co-teaching, co-teachers should come together to discuss and agree upon a general description of what their co-teaching efforts entail. Additionally, they should specify goals and objectives that will, in turn, indicate outcomes expected from the co-teaching partnership (Cook & Friend, 1995). The committee or task force should also decide who is eligible to receive services in a co-taught, general education classroom. Outlining and clarifying services to be offered is an important step in planning for a co-teaching program. As eligibility for the program is established, guidelines should be made clear to stakeholders (Cook & Friend, 1995).

Attention to detail should be given when preparing student schedules, and appropriate ratios of students with disabilities to students without disabilities should be considered. Reliance on computer-generated schedules is not advised. Hand scheduling students maximizes the opportunities for serving students appropriately (Nierengarten, 2013).

Specification of roles and responsibilities is important in planning a co-teaching program. “Listing distinct responsibilities for all individuals affected by the co-teaching program will help everyone involved to understand the nature of the program and its potential impact for them” (Cook & Friend, 1995, p. 18). It is important to discuss shared responsibility for all students including who is responsible for discipline, lesson planning, etc. It is also important to identify roles and responsibilities that will be shared by co-teachers and those that will be individual responsibilities (Scruggs & Mastropieri, 2017).

Also important is the need for evaluation strategies to gauge the effectiveness of the co-teaching program. “Meaningful evaluation data have numerous sources. Quantitative measures of students’ academic and social outcomes are important to many stakeholders in evaluating co-teaching. Formal and informal measures of achievement, social relationships, and student behaviors are also useful” (Cook & Friend, 1995, p. 18). Scruggs and Mastropieri (2017) further asserted that co-teachers should evaluate personal effectiveness by identifying areas to work on through self-assessment. Co-teacher self-assessment should lead to goal setting and implementation steps in order to monitor, discuss, and adjust instruction (Scruggs & Mastropieri, 2017).

How should co-teaching be introduced? When introducing co-teaching, it is important to anticipate areas of concern that may arise from parents, teachers, and other stakeholders. “What information is shared and how it is communicated influence significantly how others view, and subsequently respond, to the co-teaching effort” (Cook & Friend, 1995, p. 19). One area of concern for teachers and parents is the impact co-teaching will have on nondisabled students in the classroom. At first, it may seem to others that lower standards and less instruction will be the result of co-teaching. This concern needs to be addressed with teachers and parents. Additionally, the purpose of

co-teaching and the extent to which it will be implemented is important to address with teachers and parents. Third, teachers will be concerned with scheduling and the time needed for co-teaching and joint planning. This concern is important to discuss and establish with teachers (Cook & Friend, 1995). One truth to consider when introducing co-teaching is “people are more likely to accept and decide to participate in a new program or approach when they have been involved in its development at some level” (Cook & Friend, 1995, p. 20).

Barriers to Effective Co-teaching

The reality exists that all schools contain students with disabilities needing carefully planned instruction to learn what their typically developing peers are able to learn from less deliberately planned instruction (Zigmond, 2001); thus, co-teaching is undertaken in order to meet the instructional needs of students with IEPs who are included in the general education classroom. According to Zigmond (2001), IDEA 1997 places an emphasis on access to general education for students with disabilities. Inclusion of students with disabilities and co-taught classrooms have been implemented as a way to provide education in the LRE to students with disabilities, granting them access to general education curriculum; however, several barriers exist to effective inclusion and co-teaching.

Seven sins. Worell (2008) identified seven “sins” that act as barriers to inclusive practices. Worell, citing U.S. Department of Education data, stated that around 76% of students with disabilities are educated in regular education classrooms for at least part of the school day. In light of that statistic, it is important to identify and explore barriers to effective inclusion and co-teaching that exist.

Negative teacher and/or stakeholder perspectives. The first “sin” is negative

teacher and/or stakeholder perspectives. When there is a negative perspective about inclusion from administration, teachers, parents, etc., those who teach in inclusive classrooms find it very difficult to achieve a high level of success (Worell, 2008). The attitudes of teachers and their expectations have a direct effect on the performance of students in the classroom (Mcleskey & Waldron, 2007, as cited by Gill, Sherman & Sherman, 2009). Strong mentoring partnerships are essential in supporting teachers to better handle the inclusion of students with disabilities and to curb negative attitudes toward those students (Gill et al., 2009).

Lack of knowledge. The second “sin” cited is lack of knowledge regarding special education issues and laws as well as regular education content knowledge (Keefe & Moore, 2004; Worell, 2008). “For inclusion to be successful, teachers need adequate professional development opportunities” (Shoulders & Krei, 2016, p. 24). While regular educators lack knowledge of special education policies, special educators lack specific content and curriculum knowledge. For successful inclusion and co-teaching, general education teachers as well as special education teachers must be well versed in attributes of students with special needs, IEPs, and laws pertaining to special education; assessment procedures for identifying students with special needs; and effective strategies for instruction of individual students (Shoulders & Krei, 2016). As a result of a lack of knowledge from both partners, there can be struggles with the roles of co-teachers in the classroom (Keefe & Moore, 2004). In their research, Keefe and Moore (2004) found that there is great variability in the roles of co-teachers from classroom to classroom. Shoulders and Krei (2016) found that the “amount of hours spent in professional development in co-teaching is directly correlated to teacher efficacy in student engagement” (p. 27).

Poor collaboration. Poor collaboration is “sin” three. Meaningful collaboration is what binds a successful inclusion classroom program together, and it should include administration, general educators, school psychologists, etc. to ensure students are well served (Worell, 2008). Additionally, teachers recommend that those interested in co-teaching should have input in selecting their co-teaching partner. Further, co-teaching should be voluntary in order to ensure teachers have a desire to teach in a co-taught classroom (Keefe & Moore, 2004). If teachers have difficulty collaborating, students, especially students with special needs, are adversely affected (Friend, 2008). Frank discussion and communication early on in the co-teaching relationship are necessary for maintaining a partnership.

Lack of administrative support. The fourth “sin” is lack of administrative support. Administration must establish trusting relationships and foster professional development activities. Under the umbrella of administrative support, teachers cite support in planning time, training of co-teachers, and ensuring compatibility of co-teachers as barriers to co-teaching that are related to administrative support (Keefe & Moore, 2004). As a result of their research, Mastropieri and Scruggs (2001) stated, “all successful inclusion efforts observed were associated with administrative support, at the district and building level” (p. 266).

Limited instructional repertoire. “Sin” five is limited instructional repertoire. The author stressed that educators cannot teach all students the same way and that every teacher must meet each student at their point of need. This idea includes making appropriate modifications and accommodations (Worell, 2008). Effective inclusion starts with effective teaching skills. Teachers who lack competence are not appropriate for a co-taught, inclusion classroom (Mastropieri & Scruggs, 2001). Teachers must accept the

challenge to create curriculum that is appropriate for accommodating students with a diverse set of learning needs (Mastropieri & Scruggs, 2001).

Inappropriate assessments. Inappropriate assessments are the sixth “sin” to inclusion. It is stated that assessments, just like instruction, should be individualized. (Worell, 2008). Modifications in instruction and assessment are often made by the special educator in partnership with the regular educator. These modifications in instruction are made to meet the needs of special education students in the general education classroom (Keefe & Moore, 2004). Modifications to assessments should provide students alternative ways to demonstrate mastery of the objectives (Worell, 2008); however, most states incorporate high stakes testing to monitor student learning and, in some cases, determine eligibility for graduation. As a result, high stakes testing can cause teachers to abandon modifications to instruction and assessments in order to increase the amount of content taught that might appear on the test (Mastropieri & Scruggs, 2001).

Conflicting scheduling and time management. Finally, “sin” seven is conflicting scheduling and time management. Careful scheduling is important so that students with disabilities receive the level of instruction they need (Worell, 2008). The number of students in a classroom and the extra time it takes to collaborate and work in a co-teaching environment act “as a disincentive to teachers to co-teach” (Keefe & Moore, 2004, p. 82). There is a logistical challenge in finding time for collaboration and planning during the regular school day. Teachers cite a lack of time and a lack of training as the two biggest barriers to effective co-teaching (Keefe & Moore, 2004).

Research Concerning Teacher Perspectives of Co-teaching

Several studies have been conducted showing that co-teachers have overall

positive perspectives of co-teaching. In a study by Hang and Rabren (2009), participants showed agreement in perception that students with disabilities benefitted from co-taught instruction. As student confidence increased, they learned more, had sufficient teacher support, and exhibited better behaviors and classroom conduct (Hang & Rabren, 2009).

Scruggs and Mastropieri (1996) conducted a research synthesis of teacher perceptions of mainstreaming and inclusion. They reviewed studies that took place between the years 1958 and 1995 and concluded that, overall, teachers indicated support of inclusion/mainstreaming. This support of inclusion/mainstreaming varied, though, based on the severity of the disability of students who were included in co-taught classes. As teacher perceptions of additional responsibilities associated with inclusion increased, the level of willingness of teachers to teach inclusion decreased. Teacher willingness to teach inclusion classes was also connected to the severity of the disabilities of students placed in the classes. Teachers were more willing to support inclusion for students with mild physical, sensory, or medical disabilities that required little or no assistance from the teacher. Teachers were much less willing to support inclusion for students who had more serious behavioral, intellectual, or physical disabilities. Another conclusion reached by Scruggs and Mastropieri (1996) was special educators perceived co-teaching to be beneficial to students more frequently than general education teachers.

In her dissertation, Sparks (2009) explored the reasons that general education teachers resist teaching in inclusion/co-taught classrooms. She stated that the problem researched was the unwillingness of general education teachers to teach inclusion in a Virginia elementary school. Sparks asserted in her statement of the problem that teacher resistance to co-teaching might impact student achievement and that attitude and unwillingness is significant when considering whether to place a student with special

needs in an inclusion classroom. While general education teachers are the key to successful education of students with special needs in the inclusion classroom, they are overall unwilling to teach inclusion classes (Sparks, 2009).

In her summary of findings, Sparks (2009) stated the study found that teachers are, in fact, willing to teach in inclusion classrooms. The teachers feel, though, as if they need inclusion training through professional development or college courses in order to more effectively meet the needs of students. Teachers also feel that class size can be prohibitive to effectively teaching in an inclusion classroom. Sparks concluded, “understanding the relationship between inclusion training, class size and willingness to teach in an inclusion classrooms will inform leadership decisions regarding inclusion effectiveness” (p. 97).

Summary

In this chapter, research on co-teaching in inclusion classrooms was presented. The way students with special needs are educated has changed dramatically in the United States since the passage of Public Law 94-142 in 1975 and its reauthorization as IDEA in 1997. Students must now receive instruction alongside students without disabilities to the maximum extent appropriate (Gill et al., 2009). Overall, the research pointed to co-teaching as an effective strategy for educating students with disabilities in the LRE.

While this chapter focused on presenting information on co-teaching that is available in current bodies of literature, Chapter 3 will present the research methods and will align research methods to the research questions. In the study, the candidate investigated co-teacher perspectives of co-teaching and effective co-teaching models from the point of view of regular educators as well as special educators. The research questions and study instruments were aligned to Cook and Friend’s (1995) framework

which provided guidelines for effective co-teaching.

Chapter 3: Methodology

Introduction

The purpose of this explanatory sequential mixed-methods study was to investigate co-teaching and inclusion practices in the two high schools in East School District with respect to Cook and Friend's (1995) essential questions to guide co-teaching. This study investigated teacher perceptions of co-teaching and inclusion, the extent to which Dr. Friend's co-teaching models were utilized, co-teachers' rationale for using identified co-teaching models, and the needs of co-teachers. The co-teaching models developed by Dr. Marilyn Friend were utilized throughout the study as the researcher established the extent to which co-teaching models were used and co-teaching took place.

Access to the curriculum is one fundamental aspect of IDEA and NCLB. Under these laws, each child is afforded as much involvement as possible in the curriculum, as outlined by the state, for all students. Further, access to that curriculum should occur in the LRE. General educators are part of the team that prepares IEPs for students with disabilities and gives input on the alignment of IEPs with curriculum. NCLB and education in accordance with LRE have had a significant impact on co-teaching as students with special needs are educated in regular education classrooms (Friend, 2008). According to the National Center for Education Statistics, in 2014-2015, approximately 13% of all public-school students received special education services. This is up from 11.4% in 1990. Students who spent most of the school day (80% or more) in general education classes rose from 33% in the fall of 1990 to 62% in the fall of 2014. According to 2013-2014 data, approximately 66% of students served under IDEA exited school with a regular high school diploma (Children and Youth with Disabilities, 2017).

Since 1990, inclusion and co-teaching have become more widespread strategies for educating students with disabilities in the LRE (Friend, 2008). Recent data seem to support the conclusion that inclusion and co-teaching have a positive impact on educating students with disabilities. As a result, it was important to investigate and understand how co-teaching was being put into practice in East School District.

This chapter outlines the research methods the researcher used to investigate co-teaching practices used in inclusion classes in East School District. The research setting is introduced as well as the researcher's role in the district and participation in the research study. The research questions are presented and are supported by a description of the research design and rationale. Research methodology, participant selection, and instrumentation are described. In addition, the use of statistical analysis is explained. Last, this chapter addresses steps taken to ensure validity of research and data.

Setting

This research study was conducted in the two high schools in East School District. East School District serves an affluent suburban area in the southeastern portion of the United States. During this study, ABCHS served 2,223 students, while XYZHS served 2,112 students. The percentage of students who received special education services at ABCHS was 6%. The percentage of students who received special education services at XYZHS was 14%. While XYZHS can be compared to the national average, overall, East School District's high schools have fewer students who receive special education services than the 2014-2015 national average of 13% (Children and Youth with Disabilities, 2017).

The two high schools being studied offered inclusion classes in which a regular educator and a special educator co-teach the class. The inclusion with co-teaching

approach was used in the subject areas of math and English in the two high schools being studied. Therefore, students with disabilities placed in an inclusion class had specifications in their IEPs indicating the need for extra support from a special educator in the area of math, English, or both.

Teachers who participated in the study included regular educators and special educators who served in one or more co-taught, inclusion classes at the time of the study. Each teacher who participated in the study was a full-time employee of East School District. Both general educators and special educators who participated in the study were certified by the state in their respective area and were considered highly qualified.

Research Questions

This research study was an investigation of secondary inclusion practices at the two high schools in East School District. The research questions were constructed not only to investigate and understand inclusion practices but to align with several of Cook and Friend's (1995) essential questions to guide co-teaching, presented in the theoretical framework in Chapter 2.

In order to investigate inclusion and co-teaching practices in the two high schools in East School District, three research questions were examined.

1. What are co-teacher perceptions of co-taught inclusion classes?

(Quantitative/Qualitative)

- a. What are special education co-teacher perceptions of co-taught inclusion classes? (Quantitative/Qualitative)
- b. What are regular education co-teacher perceptions of co-taught inclusion classes? (Quantitative/Qualitative)

2. To what extent are elements of Friend's co-teaching models being used in co-

taught inclusion classes? (Quantitative/Qualitative)

3. What needs do co-teachers identify as important to the success of co-teaching? (Quantitative/Qualitative)

Research Design and Rationale

The study used a sequential explanatory mixed-methods approach that was both qualitative and quantitative in nature. Creswell (2014) stated that the mixed-methods approach allows one to take the strengths of both qualitative and quantitative research and combine them in order to develop a stronger understanding of the research questions. The mixed-method design allowed for focus group narrative to explain numerical survey data as meaning is added to numbers. As numbers receive new meaning and explanation through narrative, the results can be further generalized (Hesse-Biber, 2014). The explanatory sequential approach was used as quantitative and qualitative (QUAN → Qual) data were collected.

The first phase of the study utilized a survey made up of 17 quantitative and two qualitative items. The survey had the advantage of providing the researcher with data from a larger sample of the population than the focus group used in the second phase. The survey offered convenience to participants and provided the opportunity for rapid turn-around in data collection (Butin, 2010; Creswell, 2014). The second phase involved qualitative data collected through the use of focus groups. Data from the second phase were used to explain the quantitative results from the first phase in order to deepen understanding of teacher perceptions. Creswell (2014) explained that the qualitative data in the second phase serve to add depth to the quantitative results. In reference to conducting focus groups with study participants, Butin (2010) further explained, “You want them to talk about their experiences, their feelings, and their intuitions surrounding

the issue you are examining” (p. 97). In order to more thoroughly investigate the extent to which co-teaching models were utilized in inclusion classrooms and the needs for inclusion and co-teaching success as identified by co-teachers (Research Questions 2 and 3), qualitative data were collected using a focus group to conclude the sequential explanatory mixed-methods approach.

Role of the Researcher

During the study, the researcher was an employee of East School District and served as a regular educator and inclusion co-teacher at ABCHS in a tenth-grade math (algebra) classroom; however, the researcher was not included in the population of inclusion co-teachers invited to participate in the research survey. By excluding herself from the survey, the researcher avoided bias in answering as the developer of the survey and related research questions. Additionally, the researcher maintained anonymity for survey participants in order to ensure confidentiality in participants and their responses.

In conducting the focus groups, the researcher served in the role of questioning and recording conversations. Each of the focus groups were made up of teachers from ABCHS. As a result, the researcher had personal knowledge of and daily collegial interactions with members of each of the two focus groups. To minimize this effect, an audio recording was utilized to capture questions and discussions. The researcher coded the transcription of the audio recording to look for themes that emerged in discussions. Two colleagues who had experience with the process of coding qualitative data crosschecked the coding of the data and the developed themes. Both colleagues have earned their doctoral degrees and are well versed in qualitative research. The audio recording was made available to the two colleagues to ensure there was no researcher bias in transcription or coding.

Research Methodology

The researcher obtained permission from school district personnel to study the inclusion program at district high schools. Each teacher who met the criteria of the study was contacted to participate in the study. The purpose of the study was explained and an invitation was extended to participate. Consent forms were presented to teachers who participated in the study.

Participant selection. The first phase of the research study involved a survey that was sent out electronically to participants (Appendix A). The researcher-authored survey collected data pertaining to co-teacher perceptions of co-teaching, what co-teaching models were being used in inclusion classrooms, and identified needs for successful co-teaching. Participants included all current regular education and special education co-teachers at both high schools in East School District. High school administrators, guidance counselors, and department heads assisted in ensuring all co-teachers were identified and compiled into a list. Survey results were disaggregated by teacher type. All participation in the survey was voluntary. In order to protect survey participants, no identifying information was collected from survey participants, ensuring anonymity. The Inclusion and Co-Teaching Survey invitation was sent via email. Survey participants were invited to complete the online survey and were provided an informed consent, outlining the purpose of the survey and their rights as participants (Appendix B).

In the second phase of the study, the researcher conducted two focus groups with co-teachers. Focus group questions added to survey data as they delved further into understanding and identifying co-teaching models being utilized in co-taught classes as well as needs identified by co-teachers. Both focus groups were presented with the same

questions. One focus group targeted special education co-teachers. An invitation was sent out via email to invite special education co-teachers to participate in the focus group (Appendix C). The second focus group targeted regular education co-teachers from both high schools in the district. Regular education co-teachers were invited via email to participate in the focus group (Appendix D). Focus group participants were presented with an informed consent prior to participating in the focus group. The informed consent outlined the rights of focus group participants (Appendix E). Each focus group was recorded and transcribed by the researcher. Participant names and identifiers were not included in the focus groups transcriptions.

Instrumentation

In order to conduct the study, a quantitative/qualitative survey was given to gain initial information concerning the research questions. All inclusion co-teachers at both high schools were invited to complete the survey. Following the survey, focus groups with selected teachers were scheduled. Focus group questions helped to add meaning and clarity to the survey responses. Fitzpatrick et al. (2011) pointed out that surveys to a large group or population “are often supplemented with more detailed interviews with a smaller sample of program deliverers” (p. 427). The survey helped to shape focus group questions that were used to clarify understanding and effectiveness of the program.

Instrument alignment. The alignment of research questions with data collection methods is outlined in Table 2.

Table 2

Alignment of Research Questions with Data Collection Methods

Research Questions	Tools/Instruments	Data to be Collected	Method of Analysis
RQ1. What are co-teacher perceptions of co-taught inclusion classes?	Survey Items 7, 8, 9, 10	Quantitative: Likert Scale 1-5	Descriptive Statistics using statistical software: measures of central tendency, frequency distribution
	Survey Items 11, 12, 13	Qualitative	Descriptive analysis of themes
a. What are special education co-teacher perceptions of co-taught inclusion classes?	Survey Items 7, 8, 9, 10	Quantitative: Likert Scale 1-5	Descriptive Statistics using statistical software: Chi-square test
	Survey Items 11, 12, 13	Qualitative	Descriptive analysis of themes
b. What are regular education co-teacher perceptions of co-taught inclusion classes?	Survey Items 7, 8, 9, 10	Quantitative: Likert Scale 1-5	Descriptive Statistics using statistical software: Chi-square test
	Survey Items 11, 12, 13	Qualitative	Descriptive analysis of themes
RQ2. To what extent are elements of Friend's co-teaching models being used in co-taught inclusion classes?	Survey Items 14, 15	Quantitative	Descriptive Statistics using statistical software: measures of central tendency, frequency distribution
	Focus Group 2, 2a, 3	Qualitative	Descriptive analysis of themes.
RQ3. What needs do co-teachers identify as important to the success of co-teaching?	Survey Items 16, 18	Quantitative	Descriptive Statistics using statistical software: measures of central tendency, frequency distribution
	Survey Items 17, 19	Qualitative	Descriptive analysis of themes.
	Focus Group 4, 5, 6	Qualitative	Descriptive analysis of themes.

As shown in Table 2, data collection involved the use of two tools. Survey items using a Likert scale offered data to answer Research Question 1. Research Question 2

was answered through the use of quantitative survey items as well as qualitative data in which themes were analyzed from focus groups. Research Question 3 involved the use of quantitative and qualitative survey items as well as qualitative data from focus groups.

Survey. Surveys allow for the researcher to make statistical inferences about the population being studied (Butin, 2010; Creswell, 2014). Butin (2010) asserted surveys should be driven by the research questions. In this study, survey questions developed for the first phase of the research study have been explicitly linked to each of the research questions. The survey was sent to the population of current inclusion co-teachers at the two high schools in East School District. The 19-question survey was administered in an online format using the subscription services of SurveyMonkey. Seventeen of the survey items were quantitative in nature, and five asked for qualitative responses.

Survey development and validation. The Co-Teaching and Inclusion Survey items were created based upon research study questions as well as candidate research and reading concerning inclusion and co-teaching (Appendix A). Survey items 7, 8, 9, 10, 14, and 15 were adapted from Friend's (2008) *Co-Teach: A handbook for creating and sustaining effective classroom partnerships in inclusive schools*. Friend's handbook offered multiple worksheets and surveys teachers can use and reproduce to explore co-teaching components at their site. The remaining 13 survey instrument items were created by the researcher and contain quantitative and qualitative items aligned to the research questions. Participant answers to item 1 allowed for disaggregation of data between regular education co-teachers and special education co-teachers. Items 2-6 provided demographic information and context for the perceptions, methods utilized, and needs for successful inclusion and co-teaching questions that followed. Research Question 1, pertaining to perceptions of co-teaching, was addressed with survey items 7-

10 using a five-point Likert scale with the following ratings: strongly agree, agree, neutral, disagree, strongly disagree. Qualitative survey items 11-13 added to Research Question 1 with anecdotal data that were analyzed for themes.

Research Question 2, pertaining to utilization of co-teaching models as defined by Friend, was addressed through survey items 14 and 15. Research Question 3, which addressed teacher identified needs for successful co-teaching, was assessed using survey items 16-19. More details of survey alignment can be found in the Survey Alignment Matrix (Appendix B).

Survey development and validation was multifold. Survey items were developed based on the proposed research questions and Cook and Friend's (1995) guidelines for co-teaching as well as Friend's (2008) worksheet and surveys for co-teachers. After development of the survey, the researcher asked for input from two qualified colleagues. Both colleagues have earned their doctoral degrees and are well versed in research and survey design. These two colleagues helped to validate the survey instrument for use in this research study. Finally, the survey was piloted with former co-teachers who were asked to offer input on survey items.

Pilot test. Two former inclusion co-teachers were asked to pilot the Co-teaching and Inclusion Survey. One of the teachers was a special educator, and one teacher was a general educator. The two teachers were asked to provide feedback on the survey as a whole as well as individual survey items. Creswell (2014) discussed the importance of a researcher piloting a survey in order to further validate the survey items. Those who piloted the survey were asked to review the questions for understandability. They were asked to give feedback on whether questions needed improvement and if formatting needed revision (Creswell, 2014). Results of the pilot survey were analyzed, and the two

teachers provided the feedback in Table 3.

Table 3

Feedback and Recommendations from Pilot Survey

Reviewer	Feedback
#1	I think the survey is great. I don't see any issues.
#2	Looks good. Not too long.

As a result of the pilot test, no changes were made to the survey.

Data collection. Data for the quantitative/qualitative survey were collected using SurveyMonkey. The survey was custom designed using the subscription services. Using an online survey format had several advantages. Those advantages included lower cost to administer, immediate processing and storage of data in a database, lack of analyzing paper copies or scanning them for interpretation, and flexibility in the time respondents have to answer the survey (Bennett & Nair, 2010). Co-teachers were invited to complete the survey using a link sent via school email. Vicente and Reis (2010) provided information on how to fight the instance of nonresponse bias on web-based surveys, ensuring maximum survey response. In addition, Gehlbach (2015) stated that concise questions, clear directions, and labeled responses are all important when writing surveys. Best practices for survey design, as cited by Vicente and Reis and Gehlbach, were incorporated in designing the research study survey. The body of the email sent to survey participants included a paragraph explaining the purpose of the survey, the confidentiality intended, the approximate time necessary to take the survey, and a link to the survey. The purpose, confidentiality, and approximate time necessary to complete the survey as well as directions for completing the survey were reiterated on the first page of the survey. The survey window was open for 3 weeks to allow participants to complete the online survey. Reminders to complete the survey were sent via email on a weekly basis

until the window closed (Gehlbach, 2015; Vicente & Reis, 2010). The survey instrument used a Likert scale as well as open-ended questions in order to gain information that answered the research questions. In addition, survey questions collected quantitative data by inviting participants to check all that apply. Quantitative data were also collected as respondents were asked to rank levels of use on a scale of 1-6.

Data analysis. Survey items were analyzed using quantitative and qualitative analysis. All quantitative data were analyzed by a qualified statistics graduate student and then verified by his professor who has her Ph.D. in statistics. Likert scale survey items involved the use of descriptive statistics using statistical software. Measures of central tendency and frequency distributions were analyzed. In addition, a Chi-square test was used to compare responses between regular and special education teachers. A confidence interval of 95% was used when conducting the Chi-square test. Ranking survey items also utilized measures of central tendency and frequency distributions for analysis. Survey items prompting participants to answer open-ended questions were analyzed using descriptive analysis in which responses were coded and analyzed for themes.

Focus groups. After the survey was analyzed, focus groups took place in order to further develop themes that emerged in the survey. Focus groups assisted in clarifying responses to survey questions as respondents are able to further explain their rationale for the answers given (Fitzpatrick et al., 2011). The researcher acted as facilitator of the focus group as questions were asked to spark discussion. The goal of the focus group was to gain in-depth information from participants concerning inclusion and co-teaching in East School District (Fitzpatrick et al., 2011). Purpose and methods for ensuring confidentiality and accuracy in recording were reviewed with participants in order to

establish trust and credibility. Fitzpatrick et al. (2011) expressed the importance of “[t]hrow[ing] a broad net and learn[ing] from many possible sources” (p. 316). Focus group questions focused on clarifying survey responses and further answering research questions.

Question development. Focus group questions were developed after reviewing responses to the Co-Teaching and Inclusion Survey. The researcher found that Research Questions 2 and 3 needed to be explored further. The Co-teaching and Inclusion Survey was limited in its ability to fully answer what a typical day looks like in each co-taught classroom and the extent to which Friend’s co-teaching models were used (Research Question 2). Thus, focus group questions 2 and 3 were written so focus group participants could add further explanation to the limited qualitative data collected in the survey. In addition, the Co-teaching and Inclusion Survey was limited in its ability to answer what co-teachers found successful in their co-teaching partnership as well as what co-teachers needed in order to be more successful. Focus group questions 4-6 were written in order to gain further explanation on the successes and needs of co-teachers.

Data collection. Focus groups allowed for more in-depth probing of topics as they enhance quantitative data and help to answer research questions (Edmunds, 1999). In this research study, focus groups were scheduled at a time that was convenient for participants to attend (Edmunds, 1999). During the focus groups, the researcher followed a focus group questioning outline (Appendix F). The focus group began with an ice-breaker. The ice-breaker helped to familiarize focus group members with one another and helped to establish a feeling of comfort. Next, the researcher identified herself and explained the general purpose of the research study. Prior to questioning, the researcher re-emphasized the intended confidentiality of all focus group members. Then,

questioning began (Edmunds, 1999). During questioning, the researcher noted participant body language and expressions as they responded to questions and answers. The researcher also asked follow-up and clarifying questions (Butin, 2010). Each focus group lasted approximately one hour. Focus groups were recorded and transcribed by the researcher. Pseudonyms were used to ensure confidentiality for participants.

Data analysis. Transcriptions of responses of the focus groups, based on audio recordings, took place after the focus groups were completed. Tesch (1990), as cited by Creswell (2014), offered steps for the coding process that were followed. The researcher coded the transcription of the audio recording to look for themes that emerged in discussions by first reading the transcripts to gain an overall sense of the responses. Next, topics covered in the focus group (related to research questions) were identified and used as labels. Under each topic, the researcher identified categories that emerged from focus group discussions. Then, data were cut apart and hand coded to place in each category. Once data were sorted into topics and categories, they were analyzed for themes that emerged (Creswell, 2014). Two qualified colleagues reviewed transcriptions, coding, and themes as they helped to validate the data. Focus group participants were provided a copy of the themes that emerged from the transcription to review for accuracy.

Data Management

All research data were kept confidential. Survey results were downloaded from SurveyMonkey.com and kept on a password-protected computer. Interview recordings and transcripts were kept on the same password-protected computer. Back-up copies of survey results, interview transcripts, and interview audio recordings were also kept in a secure location. Pseudonyms were given to each participant in order to protect their identity. Study data and information were kept confidential and in a locked location.

After a period of 3 years, the information will be destroyed.

Threats to Validity

Threats to external validity are those threats that arise due to the characteristics or uniqueness of the environment and/or research study participants. These threats inhibit the ability of the researcher to generalize finding to other research settings (Creswell, 2014). External threats to the validity of this research included the demographics and characteristics of the school district. Research findings were generalizable only to school districts with a similar makeup of students with disabilities in co-taught inclusion classes. Additionally, the study was limited to the co-taught inclusion subject areas of math and English as those were the only subject areas that employ inclusion and co-teaching in East School District's high schools.

Threats to internal validity include threats that affect the researcher's ability to draw accurate inferences about the population being studied. Experimental procedures, treatment of data, and experiences of participants can threaten internal validity (Creswell, 2014). In this study, a threat to validity was participation of invitees. The entire population of inclusion co-teachers was invited to participate in the research survey; however, participation by all invitees was not guaranteed. There was a threat to generalizability in that there could be an uneven representation of regular or special education teachers. In this study, an equal number of regular and special educators participated in the survey, thus generalizability was strengthened.

In addition, considering that professional development and knowledge are barriers to co-teaching, self-reporting by co-teachers could be a limitation. The accuracy of respondent answers to survey items was affected by their knowledge of the co-teaching models and their ability to use them as intended.

Issues of Trustworthiness

In order to establish trust among participants, the researcher strove for transparency in communicating the purpose and possible uses of the study with participants and stakeholders. Those invited to participate in the survey were provided with a clear purpose of the study as well as clear guidelines for how the researcher would protect their ideas, responses, and personal information. Confidentiality was of the utmost importance as it is key to establishing trust and ensuring honest item responses. In addition, focus group participants were afforded the same protection as they were guided in focus group protocol. Procedures for storing, protecting, and destroying transcripts were explained to the focus groups. Discussions among focus group members remained in the group, and pseudonyms were used rather than personal identifiers when transcribing and analyzing data. Focus group participants were invited to review researcher interpretations of transcripts for accuracy.

Summary

This research study sought to investigate inclusion and co-teaching in East School District's two high schools by investigating teacher perceptions of co-teaching and inclusion, the extent to which Dr. Friend's co-teaching models were utilized, co-teachers' rationale for using identified co-teaching models, and the needs of co-teachers. As described in Chapter 3, an explanatory mixed-methods design was used. The explanatory mixed-methods study first involved collecting quantitative data through the use of a survey. Then, the quantitative results were explained with in-depth qualitative data obtained through focus groups. Alignment of research questions, participant selection, the role of the researcher, and ethical considerations were explained in detail in Chapter 3. Chapter 4 will present detailed explanations of data findings as they pertain to survey

and focus group items and address research questions. Chapter 5 will provide a summary of research and will provide implications and recommendations based on research findings.

Chapter 4: Results

Introduction

The purpose of this explanatory sequential mixed-methods study was to use Cook and Friend's (1995) essential questions to guide co-teaching as the basis for investigating co-teaching and inclusion practices in the two high schools in East School District. The study examined teacher perceptions of the effectiveness and needs of inclusion and co-teachings. The study also examined the extent to which Dr. Friend's co-teaching models are used in the co-taught classrooms and to what extent co-teaching takes place. In 2017, approximately 6% of students at ABCHS and 14% of students at XYZHS received special education services. As students with special needs are educated in the LRE, alongside their typically developing peers, it is important to investigate the co-teaching and inclusion practices being utilized to meet the needs of these students at the secondary level.

Research Questions

To investigate the co-teaching and inclusion practices in the two high schools in East School District, the researcher examined three research questions.

1. What are co-teacher perceptions of co-taught inclusion classes?
(Quantitative/Qualitative)
 - a. What are special education co-teacher perceptions of co-taught inclusion classes? (Quantitative/Qualitative)
 - b. What are regular education co-teacher perceptions of co-taught inclusion classes? (Quantitative/Qualitative)
2. To what extent are elements of Friend's co-teaching models being used in co-taught inclusion classes? (Quantitative/Qualitative)

3. What needs do co-teachers identify as important to the success of co-teaching? (Quantitative/Qualitative)

Organization of this Chapter

This chapter describes, in detail, the findings from the two-phased study as outlined in Chapter 3. Analysis of survey data as well as focus group data are presented. The following sections describe how survey and focus group data were obtained and used, participation of the co-teacher population, and results of the demographic questions for both the survey and the focus group. Subsequent sections present data results from the survey and focus groups as they correlate to the three research questions.

Co-teaching and Inclusion Survey

Data collection. The Co-teaching and Inclusion Survey was sent using Survey Monkey to all 27 teachers of co-taught inclusion classes at both high schools in East School District. Of the 27 co-teachers who received the survey, 11 were special education teachers and 16 were regular education teachers. The survey yielded a response rate of 67% (18 responses). Survey respondents included nine special educators and nine regular educators. This response rate was 82% for special educators and 56% for regular educators. The response rates for the population of co-teachers as a whole as well as the subsets of special educators and regular educators exceeded the 10% population respondent number suggested by Creswell (2014). The researcher sent the initial survey via an email that included a link to the survey. The email also gave a brief explanation of the purpose of the survey and explained that collected data would be anonymous. The survey window was open for 3 weeks. Each week, a reminder email was sent to the 27 co-teachers thanking those who had already participated in the survey and inviting remaining co-teachers to complete it.

General and Special Educator Focus Groups

In order to further explore the extent to which the elements of Friend's co-teaching models were used in co-taught inclusion classes (Research Question 2) and to identify specific needs indicated by co-teachers as important to the success of co-teaching (Research Question 3), the researcher conducted co-teacher focus groups. To encourage regular educators and special educators to speak more freely, a focus group was held for each group. The researcher held separate focus groups in order to eliminate the chance of creating animosity or hurt feelings between co-teaching pairs. The researcher wanted focus group participants to be able to answer honestly about their roles in the co-taught classroom and their co-teacher's role in the co-taught classroom as it pertained to how their co-taught classroom was typically conducted. In order to avoid animosity between general and special education co-teachers and because focus group responses for both groups frequently overlapped one another, focus group themes for each question are presented in the aggregate.

Data collection. Co-teachers were asked, via email, to volunteer to participate in the focus groups. It was explained that regular and special educators would attend separate focus groups and that conversations, while kept confidential, would be recorded and transcribed, and then the recordings would be destroyed. The researcher sent several follow-up emails asking for volunteers. After attempts at gaining more participation, the researcher decided to go ahead and hold the first focus group with the three special educator volunteers. Mayhew (n.d.) asserted that when focus group topics are ones that participants feel passionate about, a smaller focus group (three to five participants) can be more manageable, giving time for participants to share more freely. The researcher felt the special education co-teachers were passionate about their work and the smaller group

would allow for participants to share, more openly, opinions about workplace issues they might see as somewhat controversial (Mayhew, n.d.). The second focus group was held with seven general educators. All of the focus group volunteers were teachers at ABCHS. The researcher was not able to get any volunteers from XYZHS.

Focus group transcriptions were then coded by the researcher and analyzed by the researcher and two qualified colleagues to gain a descriptive analysis of themes.

Triangulation of data and member checking are important for establishing validity in research (Creswell, 2014). The coding process allowed the researcher to triangulate the data with quantitative and qualitative survey items, strengthening conclusions based on data. Themes were then sent to focus group participants (member checking) to collect feedback on the themes the researcher gleaned from the focus group responses. Each participant agreed that the themes were accurate.

Demographics from the Co-teaching and Inclusion Survey

Survey items 1-6 collected information about each respondent in order to better understand if the participants were special educators or regular educators, how many years they had been teaching in a co-taught classroom, what percentage of students served in the inclusion classrooms had IEPs, what type of training on co-teaching (if any) the co-teachers had received, and where that training took place. These survey items, while not directly linked to the three research questions, were important for understanding the co-teaching population.

Survey item 1. Survey item 1 asked respondents to indicate if they were special educators or general educators. Of the 18 respondents, nine indicated they were special educators and nine indicated they were general educators.

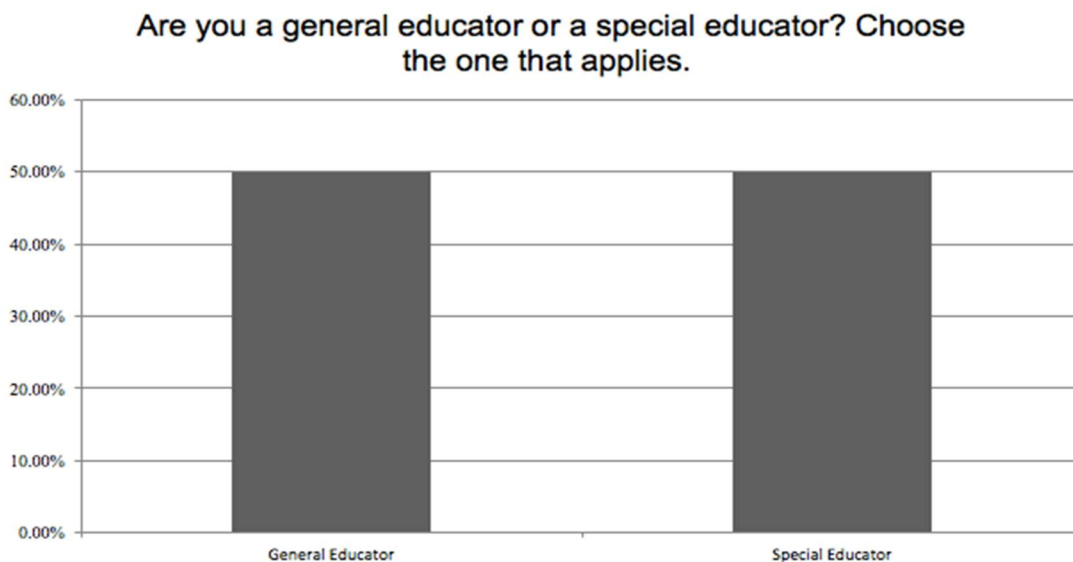


Figure 1. Survey Item 1.

Survey item 2. Survey item 2 asked how many years respondents had been co-teachers in an inclusion class. Figure 2 is the aggregate responses showing 61% of all co-teachers had taught in an inclusion class for more than 4 years.

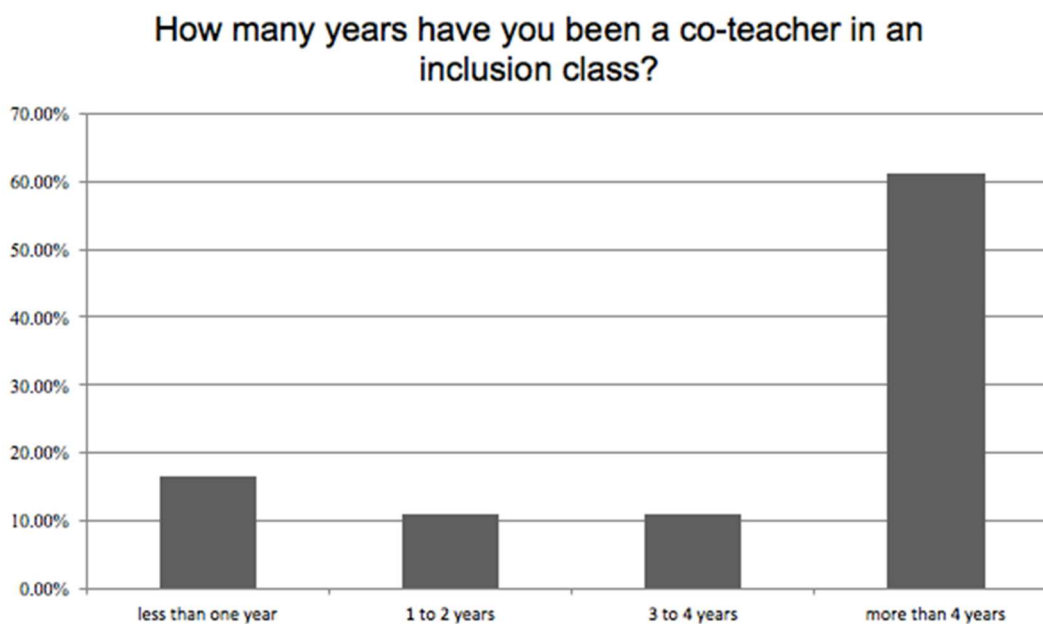


Figure 2. Survey Item 2.

For descriptive statistics pertaining to the general and special educator categories in survey items 2 and 3, the sum of the number of participants for each response category was used. Because data were count data, the sum and percentage best captured the nature of the results for items 2 and 3. When analyzing group difference between general educator and special educator for items 2 and 3, a Fisher's exact test of independence was conducted to see whether response pattern was based on group membership. This test was done because (a) the independent variable was a categorical group (general or special educator); (b) the dependent variable was a categorical response; and (c) the sample size was small and contained a response of zero in item 3. If a statistically significant difference between the two groups existed ($p < .05$), it would indicate that belonging to the regular or special educator group would make one more likely to give a certain response. Table 4 shows the descriptive statistics for survey item 2.

Table 4

Descriptive Statistics for Survey Item 2

	< one year		1 to 2 years		3 to 4 years		> 4 years	
	%	sum	%	sum	%	sum	%	sum
General Educator	11.11	1	22.22	2	0.00	0	66.67	6
Special Educator	22.22	2	0.00	0	22.22	2	55.56	5
Combined	16.67	3	11.11	2	11.11	2	61.11	11

Inferential statistics based on Fisher's exact test of independence yielded $p = .381$, meaning there was not a significant difference in the number of years taught in an inclusion classroom between the two groups.

Survey item 3. Survey item 3 asked respondents what percentage of students in their inclusion class had IEPs. Figure 3 is the aggregate responses showing the majority of co-teachers (67%) indicated 41-65% of students in their inclusion classes had IEPs.

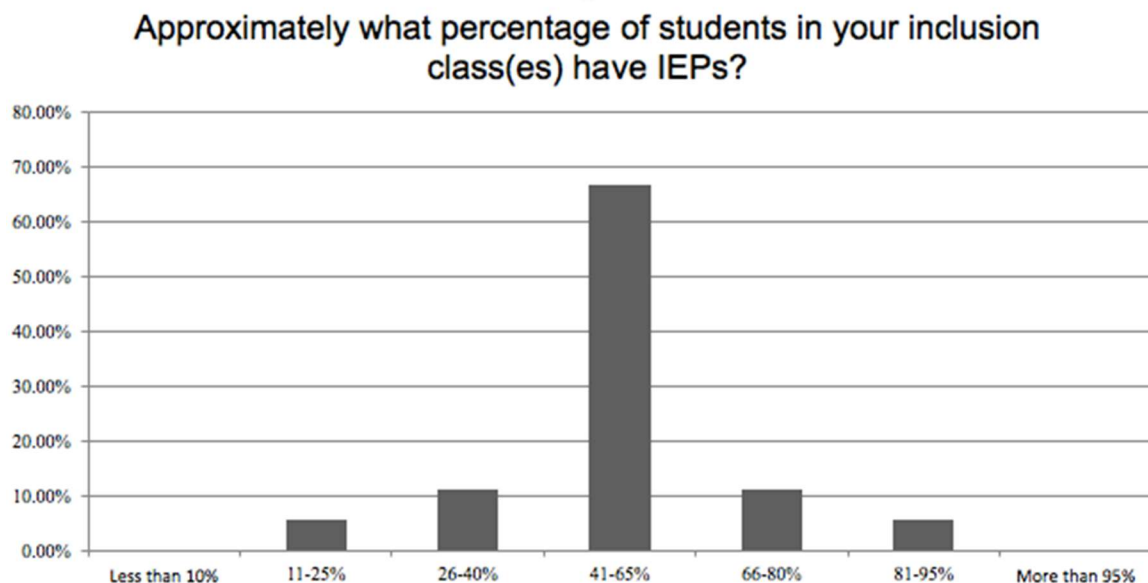


Figure 3. Survey Item 3.

In survey item 3, the sum and percentage of the number of participants for each response category was used to best capture the nature of the results. Inferential statistics based on Fisher's exact test of independence yielded $p=.7176$. A p value of $.7176$ indicated that general and special educators did not demonstrate a significant difference in the number of students with IEPs in their inclusion classes.

Table 5

Descriptive Statistics for Survey Item 3

	<10%	11-25%	26-40%	41-65%	66-80%	81-95%	> 95%
General Educator (n=9)	0.00	11.11	11.11	66.67	0.00	11.11	0.00
Special Educator (n=9)	0.00	0.00	11.11	66.67	22.22	0.00	0.00
Combined (n=18)	0.00	5.56	11.11	66.67	11.11	5.56	0.00

Survey item 4. Survey item 4 asked respondents if they received training in co-teaching *prior* to becoming a co-teacher. Figure 4 is the aggregate responses showing

44% of co-teachers did receive training prior to becoming a co-teacher, while 56% did not receive training.

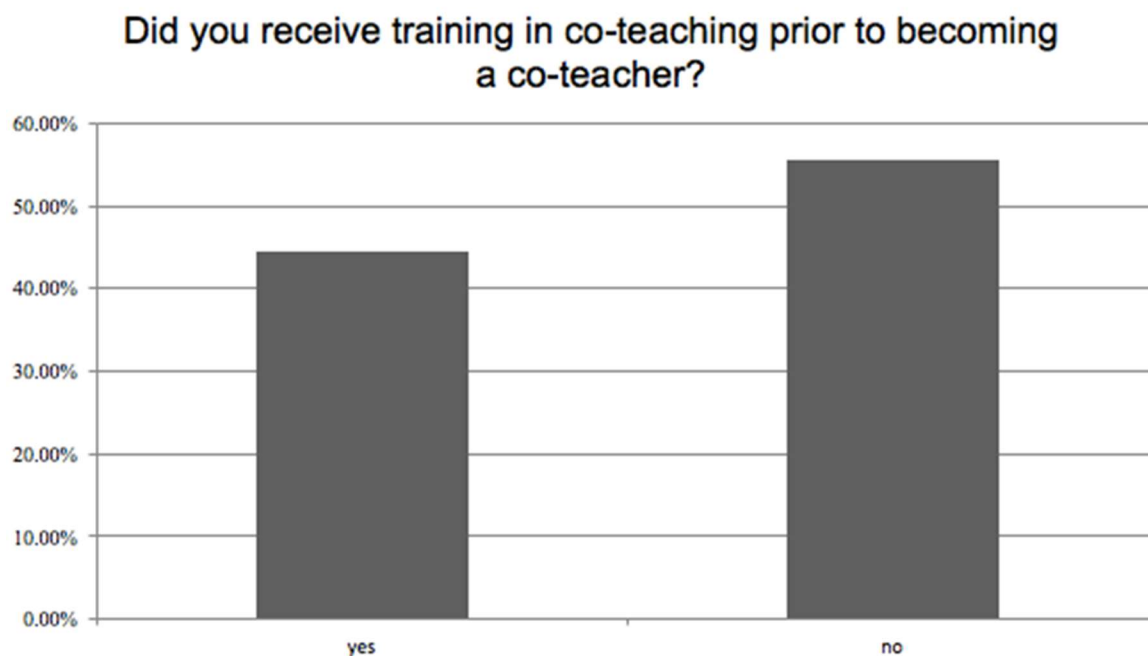


Figure 4. Survey Item 4.

For descriptive statistics pertaining to the general and special educator categories in survey items 4 and 5, the sum of the number of responses were used. When analyzing group differences for inferential statistics, because both items 4 and 5 contain (a) a binary categorical dependent variable (yes or no) and (b) a binary categorical grouping variable (general educator and special educator), a Chi-square test was conducted to see group differences on items 4 and 5. If the p value was smaller than .005, it was concluded the two variables are dependent, and group membership affected the response choices.

Table 6

Descriptive Statistics for Survey Item 4

	yes		no	
	%	sum	%	sum
General Educator	22.22	2	77.78	7
Special Educator	66.67	6	33.33	3
Combined	44.44	8	55.56	10

Responses to item 4 show large differences in the percentage of regular educators who indicated they received training prior to becoming a co-teacher and (22.22%) and special educators who indicated they received training prior to becoming a co-teacher (66.67%); however, the Chi-square test to examine group differences between general educator and special educator yielded $\chi^2=3.6$, $p=.0578$; thus, the instance of receiving training prior to becoming a co-teacher did not depend on whether the teacher was a general educator or special educator.

Survey item 5. Survey item 5 asked respondents if they had received training *during* their time as a co-teacher. Figure 5 is the aggregate responses showing 50% of co-teachers did receive training during their time as a co-teacher, while 50% did not receive training.

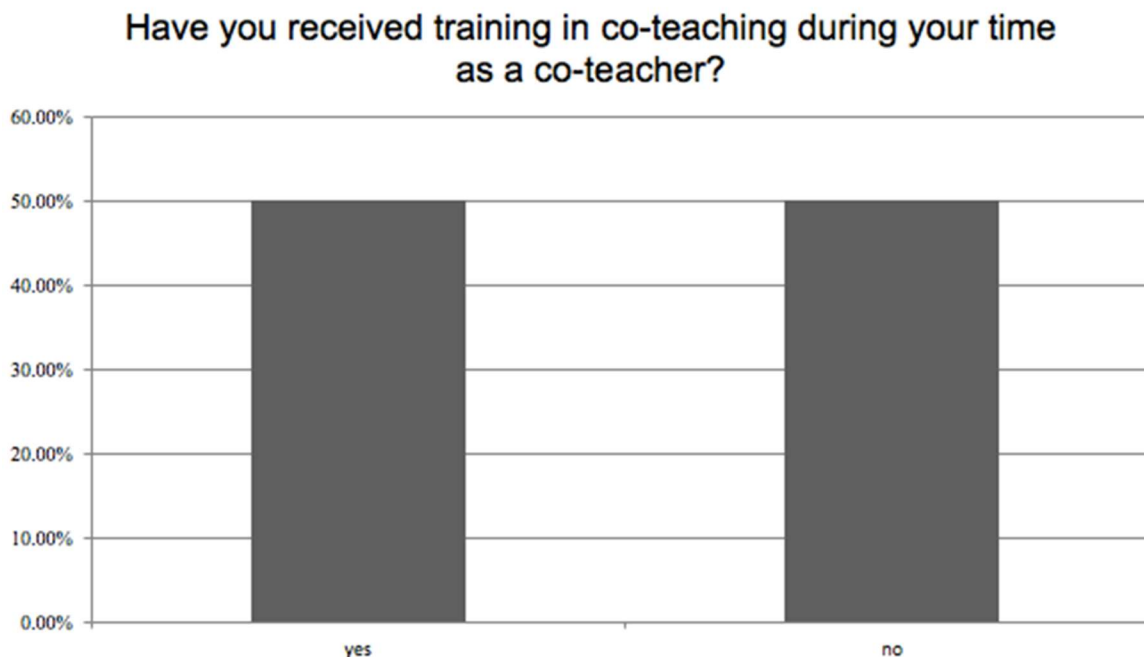


Figure 5. Survey Item 5.

For descriptive statistics in survey item 5, the sum of the number of responses for each response category was used to best capture the nature of the results.

Table 7

Descriptive Statistics for Survey Item 5

	yes		no	
	%	sum	%	sum
General Educator	22.22	2	77.78	7
Special Educator	77.78	7	22.22	2
Combined	50.00	9	50.00	9

Similar to survey item 4, responses to item 5 showed large differences in the percentage of regular educators who indicated they received training prior to becoming a co-teacher (22.22%) and special educators who indicated they received training prior to becoming a co-teacher (77.78%). The Chi-square test to examine group differences between general educator and special educator yielded $\chi^2=5.556$, $p=.0184$; thus, the

instance of receiving training while serving as a co-teacher depended on whether the teacher was a general educator or special educator. General educators were more likely to give a “no” response, while special educators were more likely to give a “yes” response.

Survey item 6. Survey item 6 asked respondents to indicate where they had received training in co-teaching. Respondents were given six options and were asked to mark all that applied. Figure 6 is the aggregate responses showing while 39% of co-teachers indicated they had received district training, 39% also indicated they had not received training.



Figure 6. Survey Item 6.

For descriptive statistics in item 6, the sum of number of participants for each response category was used. Because the data are count data, the sum and percentage best captured the nature of the result. For inferential statistics, when analyzing group

difference between general educator and special educator, because (a) independent variable is categorical group (general educator and special educator); (b) dependent variable is the categorical response; and (c) sample size is small and contain response of 0, a Fisher's exact test of independence was conducted to see whether response pattern is based on group membership. A significant difference indicates different groups have different response patterns. Table 8 is the descriptive statistics for survey item 6.

Table 8

Descriptive Statistics for Survey Item 5

	District Training	Training outside of district	University training (undergraduate)	University training (graduate)	I haven't received training	Other (please explain)
General Educator (n=9)	22.22	11.11	0.00	11.11	66.67	0.00
Special Educator (n=9)	55.56	55.56	22.22	44.44	11.11	0.00
Combined (n=18)	38.89	33.33	11.11	27.78	38.89	0.00

Inferential statistics based on Fisher's exact test of independence yielded $p=.0447$, which indicated there was a significant difference in responses between the general educator and special educator groups. Specifically, significantly more general educators indicated they had never received any training, while more special educators indicated they had received some kind of training.

Demographics from the General and Special Educator Focus Groups

The researcher began the focus group questioning by gaining some background information about participant years of experience and training in co-teaching. The researcher first asked participants how many years they had been co-teaching in an inclusion classroom. Table 9 is a summary of the responses given.

Table 9

Years of Experience as a Co-teacher

Participant #	Regular or Special Educator	Years of Experience
1	Regular Educator	<1
2	Regular Educator	12
3	Regular Educator	2
4	Regular Educator	13
5	Regular Educator	15
6	Regular Educator	5
7	Regular Educator	6
8	Special Educator	16
9	Special Educator	15
10	Special Educator	3

Years of experience in co-teaching by focus group participants ranged from this year being their first year co-teaching to 16 years of experience in co-teaching.

The researcher then asked participants about the co-teaching training they had received, when and where it took place, and what they learned from the training about effective co-teaching. Two of the regular educators indicated they had received some sort of training in co-teaching. Participants 2 and 9 had received training through workshops and in-service prior to coming to ABCHS. Participants 5, 9, and 10 indicated that co-teaching was a topic that was briefly mentioned in their graduate studies through reading and videos shown by the professor. Participants who had received training in co-teaching indicated they learned about the importance of the relationship between co-teachers in their limited training. All of the remaining focus group participants indicated they had never received training in co-teaching. Table 10 is a summary of the themes gleaned from focus group question 1.

Table 10

Focus Group Question 1 Themes

Question	Themes
1. Have you received training in co-teaching inclusion classrooms?	Extremely limited training
1a. If so, where/when did you receive training?	Out of district Workshops/in-service Brief mention in grad classes
1b. What did you learn from your training about using inclusion and co-teaching effectively?	Working together Co-teacher relationships

As seen in Table 10, focus group participants indicated they had received little to no training in co-teaching. Further, the training they had received had occurred when they held positions outside of East School District. Focus group responses for Question 1 confirmed the quantitative data gathered in the Co-Teaching and Inclusion Survey Items 4-6.

Research Question 1

The first of the three research questions asked,

1. What are co-teacher perceptions of co-taught inclusion classes?

(Quantitative/Qualitative)

- a. What are special education co-teacher perceptions of co-taught inclusion classes? (Quantitative/Qualitative)

- b. What are regular education co-teacher perceptions of co-taught inclusion classes? (Quantitative/Qualitative)

The aim of the researcher was to gain data pertaining to co-teacher perceptions of co-teaching by using quantitative and qualitative survey questions. This section presents

analysis of quantitative survey items 7-10 as well as analysis of qualitative survey items 11-13.

Survey item 7. Survey item 7 used a Likert scale from 1-5. Co-teachers were asked to rate their agreement with the statement, “My co-teacher and I believe that what we do together in co-teaching is better than what either of us would accomplish separately.” A rating of 5 indicated “strongly agree,” while a rating of 1 indicated “strongly disagree.”

A Chi-square test was conducted to see group differences on items 7-9. In order to conduct a Chi-square test between the general and special education groups, response data from “agree” to “strongly agree” were collapsed into a single category of “agree.” In addition, response data from “disagree” to “strongly disagree” were collapsed into a single category of “disagree.” Responses from “neutral” were kept the same. If the p value was smaller than .05, it was concluded the two variables are dependent, and group membership affected the response choices.

Responses to item 7 showed there was overall agreement among respondents that co-teachers believe what they are doing together is greater than what they could accomplish separately. The Chi-square test to examine group differences between general educator and special educator yielded $\chi^2=2.687$, $p=.261$; thus, responses given did not depend on whether the teacher was a general educator or special educator.

Table 11

Descriptive Statistics for Survey Item 7

	Agree		Neutral		Disagree	
	%	sum	%	sum	%	sum
General Educator	88.88	8	11.11	1	0.00	0
Special Educator	66.66	6	22.22	2	11.11	1
Combined	77.77	14	16.67	3	5.56	1

Survey item 8. Survey item 8 used a Likert scale from 1-5. Co-teachers were asked to rate their agreement with the statement, “Instructional delivery in co-taught classes is different from what occurs in other classes taught by the general education teacher.” A rating of 5 indicated “strongly agree,” while a rating of 1 indicated “strongly disagree.”

Table 12

Descriptive Statistics for Survey Item 8

	Agree		Neutral		Disagree	
	%	sum	%	Sum	%	sum
General Educator	66.66	6	33.33	3	0.00	0
Special Educator	88.89	8	0	0	11.11	1
Combined	77.77	14	16.67	3	5.56	1

Responses to item 8 showed there was overall agreement among respondents that co-teachers believe instructional delivery in a co-taught class is different than other classes taught by the general educator. The Chi-square test to examine group differences between general educator and special educator yielded $\chi^2=4.032$, $p=.133$; thus, responses given did not depend on whether the teacher was a general educator or special educator.

Survey item 9. Survey item 9 used a Likert scale from 1-5. Co-teachers were asked to rate their agreement with the statement, “Instructional intensity in my inclusion class is greater than would be possible with only one teacher present.” A rating of 5

indicated “strongly agree,” while a rating of 1 indicated “strongly disagree.”

Table 13

Descriptive Statistics for Survey Item 9

	Agree		Neutral		Disagree	
	%	sum	%	sum	%	sum
General Educator	77.77	7	22.22	2	0.00	0
Special Educator	77.77	7	11.11	1	11.11	1
Combined	77.77	14	16.67	3	5.56	1

Responses to item 9 showed there was overall agreement among respondents that co-teachers believe instructional intensity is greater than would be possible with only one teacher in the classroom. The Chi-square test to examine group differences between general educator and special educator yielded $\chi^2=1.33$, $p=.513$; thus, responses given did not depend on whether the teacher was a general educator or special educator.

Survey item 10. Survey item 10 used a Likert scale from 1-5. Co-teachers were asked to rate their agreement with the statement, “I understand the purpose/goals of our co-teaching program.” A rating of 5 indicated “strongly agree,” while a rating of 1 indicated “strongly disagree.”

Table 14

Descriptive Statistics for Survey Item 10

	Agree		Neutral		Disagree	
	%	sum	%	sum	%	sum
General Educator	88.89	8	11.11	1	0.00	0
Special Educator	100.00	9	0.00	0	0.00	0
Combined	94.445	17	5.55	1	0.00	0

Responses to item 10 showed there was overwhelming agreement among respondents that co-teachers understand the purpose/goals of the co-teaching program. Because this item contained a response of zero for all respondents in the disagree

category, a Fisher's exact test of independence was conducted to see whether response pattern was based on group membership. If a statistically significant difference between the two groups existed ($p < .05$), it would indicate that belonging to the regular or special educator group would make one more likely to give a certain response. Fisher's exact test yielded $p = .999$; thus, responses given did not depend on whether the teacher was a general educator or special educator.

Survey item 11. Survey item 11 was a qualitative question in which respondents were asked, "What is the rationale for co-teaching?" Each of the 18 survey participants responded to this question. Those responses are listed in Table 15.

Table 15

Responses to Qualitative Survey Item 11

Participant	Response	Code
1	Co-teaching with an inclusion teacher ensures that all students receive the individual instruction needed to meet the accommodations on their IEPs and 504s.	Student support, 504 and IEP compliance
2	To reach more learners and support our students with IEPs in the LRE.	Student support
3	To provide a better environment for differentiation; to highlight the strengths of both teachers to better educate the students; to better accommodate students with special needs.	Student support, Instructional support
4	To add support to students who need extra help.	Student support
5	To provide additional support for students with IEPs and to allow teachers a chance to collaborate and meet the many diverse needs within the inclusion classroom.	Student support, Instructional support
6	To bring in other teaching techniques and styles to students and be able to give more individual assistance.	Instructional support
7	Co-teaching provides more opportunities for individualized instruction based on student needs.	Student support
8	More instructional and behavioral support.	Instructional support
9	Two heads are better than one.	Instructional support
10	Two teachers more coverage for all learners better outcomes.	Student support
11	Better ability to differentiate for students with special needs in the gen ed setting to prevent the need for pull-out services.	Student support
12	Students receive more personalized attention focusing on their individual needs, greater access to help when needed, and the ability to break the class into smaller groups to reteach, provide extra help, and increase focus to task.	Student support
13	Meeting the needs of more learners during the same class time.	Student support
14	At the secondary level, I believe the rationale is to provide strategies from the sped teacher to differentiate instruction for the Content provided by the gen ed. teacher. Co-teaching at the secondary level is very difficult regarding content because sped teachers are not certified in the content the majority of the time.	Instructional support
15	Reduce teacher/student ratio. Differentiation in instruction.	Student support, Instructional support
16	To help accommodate all the varying needs of the inclusion students.	Student support
17	To provide specialized instruction for students within the general education setting.	Student support
18	Co-teaching provides a more individualized and supportive approach to education for students who are struggling to meet the same academic criteria as their typically developing peers.	Student support

Of the 18 responses pertaining to the rationale for co-teaching, 14 participants indicated that co-teaching is meant to offer support to students with IEPs or 504s in order to meet the needs of these students through accommodations, instructional strategies, and differentiation. One respondent simply stated, “Two heads are better than one.” Two other respondents spoke about the increased coverage co-teaching offers and the reduced teacher/student ratio.

Survey items 12 and 13. Survey item 12 was a qualitative question in which respondents were asked, “What is your perception of the role of your co-teacher?” Survey item 13 was also a qualitative question in which respondents were asked, “What is your perception of your role as a co-teacher?” Essentially, these questions, when looked at together, offer both regular and special educator perceptions of the role of the general educator as well as regular and special educator perceptions of the role of the special educator. As a result, the researcher decided to merge the participant responses to survey items 12 and 13 to present the perceptions of the role of each group: the general educator and the special educator. Tables 16 and 17 present the merged responses to survey items 12 and 13.

Table 16

Perceptions of the Role of the General Educator

	#	Response	Code
Gen Ed	1	My role is to keep expectations high while helping the co-teacher accommodate student to give them the best chance to achieve.	Student support
	2	To rely on the help from the inclusion teacher to fill the gaps of extra support for students.	Instructional support
	3	To plan and teach the class like any other class. I do ask for input and feedback.	Instructional support
	4	To plan and teach engaging lessons that help students master the standards and allow a co-teacher to help facilitate that learning.	Lead in planning, lead in instruction
	5	I organize lessons and structure then share the presentation of it.	Lead in planning, lead in instruction
	6	Plan, teach, and help all students.	Lead in planning, lead in instruction
	7	That of a typical teacher, but to also help work with my co-teacher to find ways to best meet the needs of inclusion students.	Student support
Sp Ed	1	I feel the gen ed teacher still carries the main load for grading and planning due to co-teaching of various classes/subjects and caseload duties. It should be more of an even split as much as possible.	Lead in planning, lead in instruction
	2	To be an equal partner in the educational process for all levels of students.	Shared responsibility
	3	To provide direct instruction to all students.	Lead in instruction
	4	He/she knows the subject matter.	Content specialist
	5	Master of content.	Content specialist
	6	I perceive my co-teaching partner to be the expert in her subject area between the two of us. She takes the lead role on instructional delivery.	Content specialist, Lead in instruction
	7	To provide alternative method of instruction that meet the needs of all students.	Instructional support
	8	To provide expertise in their subject matter.	Content specialist
	9	My co-teaching partners are phenomenal. We take equal responsibility in the planning and implementing of lessons within the classroom. We all have the same end goal in mind and work as a team to reach those goals for our students.	Shared responsibility, student support

Overall, general and special educators indicated that the role of the general educator in the co-teaching partnership is to be the master of content. While one respondent said, “We take equal responsibility in the planning and implementing of lessons within the classroom,” most co-teachers indicated that the general educator has the responsibility of planning and delivering instruction to students. Three of the regular education teachers spoke about their reliance on their co-teacher to help with filling in gaps and meeting the needs of special education students.

Table 17

Perceptions of the Role of the Special Educator

	#	Response	Code
Gen Ed	1	My partner makes sure that students needing accommodations get those accommodations. She also helps facilitate small group work and some whole-class instruction.	504 and IEP compliance, instructional support
	2	To help students who need extra support.	Support students
	3	To aid students in their learning process and help make sure their IEP is being followed.	Support students, 504 and IEP compliance
	4	To aid and help facilitate the learning of students struggling to master the content.	Instructional support
	5	We are equals on a mission to help our students succeed.	Shared responsibility
	6	To split the role of teacher/facilitator.	Shared responsibility
	7	Plan, teach and help all students.	Instructional support
	8	She helps provide support to me and the inclusion students.	Student support, instructional support
Sp Ed	1	I should be an equal teacher in delivering content, planning and assessment. This is often not the case due to my own responsibilities or the hesitancy of the gen ed teacher to give up some of these duties or control.	Shared responsibility, equality/inequality
	2	To provide instruction for all levels of students and to ensure differentiation and accommodations are being met for all students.	Instructional support, 504 and IEP compliance
	3	To provide direct instruction and provide accommodations for IEP students.	Instructional support, 504 and IEP compliance
	4	Support person.	Student support, instructional support
	5	Content delivery in a variety of ways, help provide accommodations for testing.	Instructional support, 504 and IEP compliance
	6	I feel that my role is more of that of a supportive co-teacher. I generally provide support to students as they need it of as we (the co-teachers) feel they need it. I take small groups separately at times to increase focus and understanding on the material they are working on. I am also there to focus on the individual goals set forth in the IEPs and ensure that their accommodations are being followed (i.e., provide a small group testing environment, oral administration, etc.).	Student support, 504 and IEP compliance

(continued)

#	Response	Code
7	My perception of the role I have as co-teacher is to learn the content, provide suggested strategies and instructional methods, analyze assessment results to determine further instructional needs, share with instruction when I feel comfortable with content, instruct small groups, whole groups, and provide individual assistance. Planning is not optimal due to the extraordinary amount of paperwork required of sped teachers.	Instructional support
8	To enhance student knowledge by providing one-on-one instruction when needed within the general education setting.	Instructional support, student support
9	As stated previously, we both take equal ownership of the classroom, lesson planning, and implementation of lessons that are diverse and meet the needs of all students regardless of academic ability.	Shared responsibility

In answering this survey question, one participant stated, “We are equals on a mission to help our students succeed.” While each co-teacher is a certified teacher, the overall sentiment is that the general and special education teachers are not necessarily equals. Overall participant responses pointed to the special educator as a support person. The special educator was perceived to provide support to teachers through instruction and suggesting strategies as well as providing support to students. Another role of the special educator, as seen in the survey responses, was compliance with IEPs. Respondents indicated that it is the responsibility of the special educator to ensure accommodations are being made and IEPs are being followed.

The overall theme that emerged when analyzing merged responses to survey items 12 and 13 was that co-teachers perceived the general educator as the one who takes the lead role in instructional delivery and the special educator takes the role of providing support to both the general education teacher and the students.

Research Question 2

The second of the three research questions asked, “To what extent are elements of Friend’s co-teaching models being used in co-taught inclusion classes (Quan/Qual)?”

The researcher used the Co-teaching and Inclusion Survey Items 14 and 15 (quantitative) as well as follow-up focus group questions 2 and 3 (qualitative) to answer this research question. This section will present the findings of Research Question 2.

Survey item 14. Survey item 14 asked respondents what co-teaching looks like in their inclusion classroom. They were asked to rank their use of Friend’s six co-teaching models. In Table 18, a higher score indicated models used most often. Lower scores indicated that method was used least often. Table 18 is the aggregate result of co-teacher responses to survey item 14.

Table 18

Co-teaching Models Used (ordered by frequency)

Co-Teaching Model	Score (out of 6)
One Teach/One Assist	5.33
One Teach/One Observe	4.11
Alternative Teaching	3.33
Team Teaching	3.28
Parallel Teaching	2.78
Station Teaching	2.17

As seen in Table 18, respondents indicated One Teach/One Observe and One Teach/One Assist were used most often in their co-taught inclusion classrooms.

Survey item 15. Survey item 15 asked respondents to consider an ideal co-teaching partnership as they ranked Friend’s six co-teaching models they would use to create a successful inclusion classroom. In Table 19, a higher score indicated models used most often. Lower scores indicated that method was used least often. Table 19 is the aggregate result of co-teacher responses to survey item 15.

Table 19

Ideal Use of the Co-teaching Models (ordered by frequency)

Co-Teaching Model	Score (out of 6)
Team Teaching	4.61
Station Teaching	3.89
Parallel Teaching	3.78
One Teach/One Assist	3.61
Alternative Teaching	3.22
One Teach/One Observe	1.89

As seen in Table 19, respondents, as a whole, indicated that in an ideal co-teaching classroom, they would use Team Teaching and Station Teaching most often in order to create a successful co-taught classroom.

Survey item 15 asked respondents to rank their responses 1-6. Essentially, this survey item contained six questions to be rank-ordered. As a result, statistical analysis was conducted at each level for each item. For descriptive statistics, the average rank for each question from all participants was calculated. Then, the average rank for each question from the regular and special educator groups was calculated. The smaller the mean value, the higher the rank.

The Whitney-Mann method was used to compare group order-data differences between general and special educators for each ranked question. If a statistically significant difference between the two groups existed ($p < .05$), it would indicate the two groups ranked differently on a specific question. Table 20 is the descriptive and inferential statistics for survey item 15.

Table 20

Descriptive and Inferential Statistics for Survey Item 15

Co-teaching Method	Mean for General Educator	Mean for Special Educator	Grand Mean	p value
One Teach/One Observe	5.11	5.11	5.11	.77
Station Teaching	2.33	3.89	3.11	.04
Parallel Teaching	3.11	3.33	3.22	.79
Alternative Teaching	3.11	4.44	3.78	.02
Team Teaching	3.67	1.11	2.39	.00
One Teach/One Assist	3.67	3.11	3.39	.49

Statistically significant differences ($p < .05$) existed between general and special educators for the co-teaching models of Station Teaching, Alternative Teaching and Team Teaching. General educators were more likely to give a higher rank (smaller mean value) to Station Teaching and Alternative Teaching. Special educators were significantly more likely to give a higher ranking to Team Teaching when considering the ideal co-teaching method for a successful co-taught classroom.

Focus group question 2. Focus group question 2 invited participants to talk about a typical day in their inclusion classroom. Participants were asked to review descriptions of Friend's six co-teaching models and talk about which ones described what they do in their co-taught classrooms. The question was followed up by asking participants how much of their time is spent co-teaching. Table 21 is a summary of the responses of focus group question 2a.

Table 21

Response Summary from Focus Group Question 2a

Question	Response summary
2a. How much of your time is spent co-teaching?	Two teachers present 80-85% of the time, very little co-teaching/team teaching when both are present

As seen in Table 21, participant answers to question 2a indicated that there were two interpretations of the question. First, focus group participants agreed that two teachers are present in the co-taught classroom 80-85% of the time. When directed by the researcher to comment on how often they co-taught or team taught with their co-teacher, participants indicated it was very little and that they are more likely to use alternative teaching for small group remediation and review.

Focus group question 3. Focus group question 3 asked participants about the roles and responsibilities taken by each teacher during instruction in the co-taught classroom. Table 22 is a summary of the themes of focus group question 3.

Table 22

Focus Group Question 3 Themes

Question	Themes
3. What roles and responsibilities does each teacher take during instruction in the co-taught classroom?	Inconsistency in roles, inequity between co-teachers

As seen in Table 22, focus group participants indicated there is inconsistency in co-teacher roles from classroom to classroom and there is also inequity between roles of the two co-teachers. The general education teacher often takes the role of lead teacher, while the special educator acts as an assistant. Participants were able to articulate that there is no consistency in the roles of general and special educators from classroom to

classroom. In general, the special educator provides support, as needed, to the general educator; and the general educator assigns roles and responsibilities to the special educator. In addition, participants spoke about how the special educator often takes on the more “motherly figure” in the classroom, offering support, help, and understanding to the students; thus, the development of the “good cop/bad cop” roles in the classroom in which one co-teacher is easier on the students or more favorable to the students than the other. Focus group responses for question 3 confirmed the quantitative data gathered in the Co-Teaching and Inclusion Survey Items 14 and 15 in which One Teach/One Assist and One Teach/One Observe were seen as the most used co-teaching methods.

Research Question 3

The third of the three research questions asked, “What needs do co-teachers identify as important to the success of co-teaching (Quan/Qual)?” The researcher used the Co-teaching and Inclusion Survey Items 16 and 18 (quantitative) as well as 17 and 19 (qualitative) to answer this research question. Focus group questions 4-6 (qualitative) added further insight to this research question. This section will present the findings of Research Question 3.

Survey item 16. In survey item 16, respondents were given a list of eight barriers to effective co-teaching. The question asked respondents to check, from the list, what they perceived as the top four barriers to effective co-teaching at their school. Table 23 is the aggregate responses for survey item 16.

Table 23

Survey Item 16 Barriers to Effective Co-teaching (ordered by frequency)

Co-Teaching Model	%
Lack of time for collaboration	88.89
Scheduling issues	77.78
Lack of training or PD	66.67
Limited resources	38.89
Reluctance to lose control	33.33
Personality or philosophical clashes with co-teacher	16.67
Lack of administrative support	11.11
Negative teacher perspectives	5.56

As seen in Table 23, the overall top four barriers cited by respondents were lack of time for collaboration, lack of training or PD, scheduling issues, and limited resources.

For descriptive statistics pertaining to the general and special educator categories in survey item 16, the sum of the number of participants for each response category was used. Because data were count data, the sum and percentage best captured the nature of the results for item 16. When analyzing group difference between general educator and special educator for item 16, a Fisher's exact test of independence was conducted to see whether response pattern was based on group membership. This was done because (a) the independent variable was a categorical group (general or special educator), (b) the dependent variable was a categorical response, and (c) the sample size was small and contained a response of zero in item 3. If a statistically significant difference between the two groups existed ($p < .05$), it would indicate that belonging to the regular or special educator group would make one more likely to give a certain response. Table 24 shows the descriptive statistics for survey item 16.

Table 24

Descriptive Statistics for Survey Item 16

Barrier	General Educator		Special Educator		Combined	
	%	sum	%	sum	%	sum
Lack of training or PD	66.67	6	66.67	6	66.67	12
Personality or philosophical clashes with co-teacher	11.11	1	22.22	2	16.67	3
Negative teacher perspectives	0.00	0	11.11	1	5.56	1
Limited resources	55.56	5	22.22	2	38.89	7
Scheduling issues	77.78	7	77.78	7	77.78	14
Reluctance to lose control	33.33	3	33.33	3	33.33	6
Lack of time for collaboration	88.89	8	88.89	8	88.89	16
Lack of administrative support	0.00	0	22.22	2	11.11	2

As seen in Table 24, general and special educators were identical in identifying their top three barriers to effective co-teaching: lack of time for collaboration, scheduling issues, and lack of training or PD. Inferential statistics based on Fisher's exact test of independence yielded $p=.8178$, which means general and special educators do not demonstrate a significant difference in perceiving the top four barriers of effective co-teaching at their school.

Survey item 17. Survey item 17 followed up item 16 in that it asked respondents to identify any other barriers to effective co-teaching that were not identified in the previous question. Table 25 contains the responses of the nine respondents who chose to comment on this survey item.

Table 25

Additional Barriers to Effective Co-teaching

	#	Response	Code
Gen Ed	1	Co-teacher is not a math teacher. Does not know the content.	Lack of content knowledge
	2	Time to plan together and master content together.	Lack of collaboration time, lack of content knowledge
	3	Willingness and comfort of inclusion teacher.	Volunteerism
	4	Content knowledge.	Lack of content knowledge
Sp Ed	1	Lack of content knowledge at the high school level when put in a class for the inclusion teacher that has never been a co-teacher for that subject.	Lack of content knowledge
	2	Some teachers are asked to do inclusion every semester. I think it should be rotated among the department.	Volunteerism
	3	Lack of knowledge in the subject matter.	Lack of content knowledge
	4	Time.	Lack of collaboration time
	5	The greatest barrier is just a lack of training for teachers who have never experienced a co-taught inclusion class.	Lack of training

Responses to survey item 17 pointed out two additional barriers to co-teaching that were not covered in survey item 16: lack of the special educator content knowledge and the lack of choice some co-teachers have in choosing to co-teach.

Survey item 18. Survey item 18 asked respondents what they believe to be the greatest needs that co-teachers have that are important to the success of co-teaching. They were asked to rank a list of eight needs presented in the question. In Table 26, a higher score indicated needs identified most often. Lower scores indicated needs that were identified least often. Table 26 is the aggregate result of co-teacher responses to survey item 18.

Table 26

Survey Item 18 Needs of Co-teachers (ordered by frequency)

Needs of Co-teachers	Score (out of 8)
Content knowledge of both teachers	5.89
Compatibility with co-teacher	5.78
Common planning time	5.67
Positive perspectives of inclusion and co-teaching	4.56
Mindfulness of scheduling, class size and composition	4.39
The ability to choose to co-teach (volunteerism)	3.72
Professional development	3.44
Administrative support	2.56

As seen in Table 26, respondents indicated content knowledge of both teachers, compatibility with their co-teacher, and common planning time to be the top three needs that are important to the success of co-teaching.

Survey item 18 asked respondents to rank their responses 1-8. Essentially, these survey items each contained eight questions to be rank-ordered. As a result, statistical analysis was conducted at each level for each item. For descriptive statistics, the average rank for each question from all participants was calculated. Then, the average rank for each question from the regular and special educator groups was calculated. The smaller the mean value, the higher the rank.

For inferential statistics for survey item 18, a Whitney-Mann test was used to compare group order-data differences between general and special educators for each ranked question. If a statistically significant difference between the two groups existed ($p < .05$), it would indicate the two groups ranked differently on a specific question. Table 27 is the descriptive and inferential statistics for survey item 18.

Table 27

Descriptive and Inferential Statistics for Survey Item 18

Need	Mean for General Educator	Mean for Special Educator	Grand Mean	p value
Common planning time	2.56	3.33	3.33	.07
Mindfulness of scheduling class size and composition	4.00	5.22	4.61	.28
Professional development	5.00	6.11	5.56	.21
Administrative support	6.11	6.78	6.44	.78
The ability to choose to co-teach	5.89	4.67	5.28	.42
Positive perspectives of inclusion and co-teaching	5.67	3.22	4.44	.03
Compatibility with co-teacher	3.89	2.56	3.22	.04
Content knowledge of both teachers	2.89	3.11	3.00	.65

Statistically significant differences ($p < .05$) existed between general and special educators for the co-teaching needs common planning time, positive perspectives of co-teaching, and co-teacher compatibility. General educators were significantly more likely to give a higher rank (smaller mean value) to common planning time. Special educators were significantly more likely to give a higher ranking to the needs of positive perspectives of co-teaching and co-teacher compatibility.

Survey item 19. Survey item 19 followed up item 18 in that it asked respondents to identify any other needs for successful co-teaching that were not identified in the previous question. Table 28 is the responses of the four respondents who chose to comment on this survey item.

Table 28

Additional Needs for Successful Co-teaching

	#	Response	Code
Sp Ed	1	Appearance of and explanation to students and parents of both teachers being presented on a schedule and as equal participants in the educational process.	Equality
	2	Half day co-teaching so sped teachers can also work with case load students.	Mindful scheduling
	3	Caseloads and support classes should include the students in the co-taught classes. Additionally, sped teachers need more time permitted to complete IEPs and assess students. There is no flexibility. That is an issue.	Mindful scheduling
	4	Co-teaching needs two teachers who, regardless of beliefs/background, are set on working together for the overall success of their students. If your attitude and heart are in the right place, it will shine in the co-taught environment.	Co-teacher relationship

Responses to survey item 19 were all made by special education co-teachers.

Two of those co-teaches pointed out the need for more time and flexibility for special educators to serve students on their caseload and do paperwork. This idea expands on the need identified in survey item 18 for mindfulness in scheduling. One respondent pointed to the need for both co-teachers to be seen as and presented to students and parents as equals. The last respondent spoke about co-teacher relationships and the need for a positive attitude when they said, “If your attitude and heart are in the right place, it will shine in the co-taught environment.”

Focus group question 4. Focus group question 4 asked participants what they find successful about their co-teaching partnership. Table 29 is a summary of the themes of focus group question 4.

Table 29

Focus Group Question 4 Themes

Question	Themes
4. What do you find successful about your co-teaching partnership?	Rapport/relationship between co-teachers Student support

As seen in Table 29, focus group participants spoke about the success of their relationships with their co-teachers. This theme reiterated survey results for survey item 18 in which respondents ranked “compatibility with co-teacher” as one of the three greatest needs for successful co-teaching. In addition to the co-teaching relationship, focus group participants agreed they find co-teaching successful “when students . . . all students . . . are getting the help they need” (Focus Group Participant, personal communication, November 13, 2017).

Focus group question 5. Focus group question 5 asked participants what they find that is not successful about their co-teaching relationship. Table 30 is a summary of the themes of focus group question 5.

Table 30

Focus Group Question 5 Themes

Question	Themes
5. What do you find that is not successful about your co-teaching relationship?	Lack of content knowledge Inequality Lack of collaboration time Inconsistency in roles

As seen in Table 30, there is an overall theme concerning the lack of equality between co-teaching pairs. Part of the inequality articulated by co-teachers is inequality in the level of content knowledge since the general educator is the master of the content being taught. Another part of the inequality expressed by co-teachers is in the way

students and parents perceive the roles of the two teachers. Focus group participants indicated that on a student's schedule, only the general education teacher is listed; thus, it leads students to the perception that the general education teacher is the "real" teacher. Participants also spoke about the lack of time for collaboration and how that affects the ability for the pair to truly team teach. This reiterated survey results for survey item 18 in which respondents ranked content knowledge and common planning time as two of the three greatest needs for successful co-teaching.

Focus group question 6. Focus group question 6 asked participants what they think they need in order to be more successful. Table 31 is a summary of the themes of focus group question 6.

Table 31

Focus Group Question 6 Themes

Question	Themes
6. What do you think you need in order to be more successful?	Collaboration time Volunteerism Consistency in roles Training Student support focused Administrative support Clarification of goals/expectations

As seen in Table 31, time for collaboration, administrative support, and professional development (training) were reiterated from survey items 16 and 18 where respondents, as a whole, cited these to be three of the greatest needs/barriers in co-teaching. Focus group participants also spoke at great length about the need for clarification in roles, expectations, and goals from administration at both the school and district level. The researcher asked a follow-up question to the focus group participants: "If you had to sum up your perception of what administration's goal is, what would you

say administration feels is their goal of inclusion?” One focus group participant said, “To execute the IEP” (Focus Group Participant, personal communication, November 13, 2017). Another participant said, “To provide back-up support to the content teacher” (Focus Group Participant, personal communication, November 29, 2017). Overall, focus group members felt there was a lack of consistency in co-teaching and a lack of clear expectations of co-teaching in inclusion classrooms.

Summary

In summary, this study investigated secondary co-teaching and inclusion practices at two high schools in East School District. A survey of general and special educators was used to gather initial quantitative and qualitative data to answer the three research questions. The survey was followed by two focus groups: one for general educators and one for special educators. The focus group allowed the researcher to further answer Research Questions 2 and 3 and to clarify survey results.

The study investigated the perceptions co-teachers have of inclusion and co-teaching. Co-teachers indicated positive perceptions of co-taught inclusion classes as they were, overall, in agreement that what they do together as co-teachers is better than what they could do separately. Co-teachers also indicated understanding of the purpose/goals of the co-teaching program and agreed co-teaching benefits students.

Next, the use of Friend’s six co-teaching models in co-taught inclusion classrooms at ABCHS and XYZHS were explored. As a whole, co-teachers indicated One Teach/One Assist and One Teach/One Observe were the most used models. Co-teachers also indicated the general educator typically takes the lead teacher role in planning and instructional delivery, while the special educator acts as a support person.

Finally, needs for successful co-teaching partnerships were examined. Aggregate

data pointed to content knowledge of both teachers, compatibility of co-teaching partners, common collaboration and planning time, and training in co-teaching to be the four biggest needs for effective co-teaching.

In the next chapter, an interpretation of findings is presented as the researcher compares existing literature to study data and analysis. Limitations of the study are discussed. Recommendations based on the interpretation of study data and analysis are suggested. Finally, conclusions are made and implications of this study are presented.

Chapter 5: Discussion

Introduction

The 1990 revision of IDEA changed the way in which students with disabilities are educated. Prior to federal legislation mandating the education of students in the LRE, students with special needs were rarely educated in general education classrooms alongside typically developing peers (Shoulders & Krei, 2016). Inclusion classes taught by co-teachers became the method of choice for educating students with special needs in the LRE. Co-teaching, in which two or more qualified professionals deliver instruction to a group of students in a single classroom, developed as the ideal strategy for students with disabilities to receive support in the general education classroom (Cook & Friend, 1995; Hang & Rabren, 2009). There exists a deficiency in the literature regarding teacher perceptions of co-teaching and inclusion and how teacher perceptions influence the way in which co-teaching models are implemented in inclusion classrooms. While researchers have taken steps to understand the dynamics of team teaching, they have not consulted the teachers themselves on their attitudes concerning co-teaching.

The purpose of this explanatory sequential mixed-methods study was to investigate co-teaching and inclusion practices in the two high schools in East School District with respect to Cook and Friend's (1995) essential questions to guide co-teaching. To investigate the co-teaching and inclusion practices in the two high schools in East School District, the researcher examined three research questions.

1. What are co-teacher perceptions of co-taught inclusion classes?

(Quantitative/Qualitative)

- a. What are special education co-teacher perceptions of co-taught inclusion classes? (Quantitative/Qualitative)

- b. What are regular education co-teacher perceptions of co-taught inclusion classes? (Quantitative/Qualitative)
2. To what extent are elements of Friend's co-teaching models being used in co-taught inclusion classes? (Quantitative/Qualitative)
3. What needs do co-teachers identify as important to the success of co-teaching? (Quantitative/Qualitative)

In phase one of the study, the researcher sent the Co-teaching and Inclusion Survey to all 27 co-teachers in East School District's high schools. Once the data from phase one were collected and analyzed, the researcher used the results to aid in the development of questions to be used in phase two. In phase two, the researcher held two focus groups. One focus group was conducted with the participation of general education co-teachers. The second focus group was conducted with the participation of special education co-teachers. Each focus group was asked the same questions pertaining to co-teaching. The researcher triangulated the data from all data sources to draw conclusions related to the investigation of co-teaching and inclusion at the secondary level in East School District.

Interpretation of Findings

Perceptions of co-teaching and inclusion. In this study, Research Question 1 looked at the perceptions general and special education co-teachers have about co-teaching and inclusion. The Co-teaching and Inclusion Survey included three quantitative items and three qualitative items for answering this research question. This study found that co-teachers (n=18) had favorable perceptions of co-teaching. They believed that what they are able to do together as co-teachers is better than what they would be able to accomplish on their own. They also believed there is increased

instructional intensity in a co-taught classroom, and instruction in a co-taught classroom is different than in a general education classroom. In addition, the quantitative survey items found that co-teachers indicated an understanding of the purpose and goals of co-teaching. No statistical difference existed in the responses given by general and special educators in terms of perceptions of co-teaching and inclusion. Qualitative survey results found that co-teachers perceived the rationale for co-teaching to be one of support for students. They believed that co-teaching offers both general and special education students the opportunity to receive the extra help and support they need for success through a lower student/teacher ratio. When examining co-teacher perceptions of one another's roles overall, general and special educators indicated that the role of the general educator in the co-teaching partnership is to be the master of content, while the special educator was perceived to provide support to teachers through instruction and suggesting strategies as well as providing support to students.

In a research study of teacher beliefs about co-teaching, Austin (2001) collected data from interviews of co-teachers. Most of the teachers interviewed indicated they found the co-teaching experience to be positive and believed it contributed to their professional career. In addition, teachers expressed the belief that the collaborative, co-teaching strategies they used were beneficial and effective in educating not only special education students but general education students as well. Research participants cited a reduced student/teacher ratio as a benefit to co-teaching. They also cited the benefit of having another individual's expertise on hand to add to classroom instruction, structure, and management. In addition, teachers indicated an overall belief that all students benefited from co-taught inclusion classrooms (Austin, 2001). It is interesting to note that in Austin's study, teachers interviewed had not volunteered to be co-teachers, but a

major percentage had indicated they believe co-teaching to be worthwhile. The findings of Austin's research study mimicked the findings of Research Question 1 of this study.

With regard to Cook and Friend's (1995) 10 questions to guide co-teaching program development, this research question was supported by Cook and Friend's first three questions:

1. What do we mean by co-teaching?
2. What is the rationale for co-teaching?
3. When is co-teaching the appropriate instructional strategy?

Cook and Friend (1995) defined co-teaching as "two or more professional delivering substantive instruction to a diverse, or blended, group of students in a single space" (p.

1). Co-teaching provides for more instructional opportunities for students, greater intensity of instruction, reduced stigma for special education students, and increased professional support for teachers (Cook & Friend, 1995). Co-teaching is appropriate if special education students who are included in the general education classroom will benefit from the curriculum without substantial changes having to be made to the curriculum (Cook & Friend, 1995). This research study showed that co-teachers had a general understanding of the rationale for co-teaching and inclusion.

Use of Friend's co-teaching models. In this study, Research Question 2 looked at the extent to which elements of Friend's co-teaching models were being used in co-taught inclusion classes. This study used quantitative items from the Co-teaching and Inclusion Survey as well as qualitative items from the co-teacher focus groups to examine Research Question 2. This study found that co-teachers surveyed (n=18) indicated One Teach/One Assist as the most used of Friend's six co-teaching models. No significant differences existed between general and special educators in their identification of One

Teach/One Assist as the most used model. Overall, co-teachers identified Team Teaching as the most ideal in creating a successful co-taught inclusion classroom. Statistically significant differences existed between general and special educators in their opinion of ideal co-teaching models for the co-teaching models of Station Teaching, Alternative Teaching, and Team Teaching. Focus group participants (n=10) indicated the general education teacher often took the role of lead teacher in the co-taught classroom, while the special educator acted as an assistant. Additionally, special educator focus group participants indicated there was not consistency in the roles of general and special educators as they move from classroom to classroom. In general, focus group participants indicated the special educator provided support, as needed, to the general educator and to individual students in the classroom. Roles of the special educator were generally assigned by the general educator in the classroom.

Keeley (2015) completed research of student and teacher perceptions of co-teaching. The study used surveys to gain student and teacher perspectives. Teachers in Keeley's study indicated that of all Friend's co-teaching models, One Teach/One Assist is the easiest to implement. While teachers did not perceive an imbalance of authority between teachers when One Teach/One Assist was used, students surveyed did perceive an imbalance in authority and power (Keeley, 2015). Students indicated that they felt more confident in their learning when Station Teaching, Parallel Teaching, or Team Teaching was used. Students also perceived a balance in power between the co-teachers when these methods were used. "The One Teach/One Assist model is found to be significantly inferior regarding student learning and confidence" (Keeley, 2015, p. 12). Simmons and Magiera (2007) studied three high schools in one district to determine how much true co-teaching was taking place. This study was done through classroom

observations and interviews. Even in the same district, the researchers found that only one of the three high schools was using true co-teaching in which both teachers planned curriculum together, delivered instruction together, and shared responsibility for student grading. Participants at the other two high schools described the general educator as the content specialist and the special educator as the learning specialist in their roles. There was minimal involvement in planning lessons from the special educator. Roles at these two high schools were described as “not equitable” (Simmons & Magiera, 2007, p. 8). Austin (2001) indicated that the inequality between general and special educators in the co-taught classroom could be due to the fact that the special educator is often the visitor in the classroom. Special educators typically teach in two or more different classrooms in the course of the school day, while the general educator remains in the same classroom. Austin’s study of teacher beliefs about co-teaching found that while general and special educators valued shared responsibility, classroom management, and instructional duties, they did not, in fact, share these responsibilities in their daily practice.

With regard to Cook and Friend’s (1995) 10 questions to guide co-teaching program development, this research question was supported by Cook and Friend’s next three questions:

4. What does co-teaching look like?
5. Who should be involved in co-teaching?
6. How much co-teaching should take place?

Co-teaching is a seamless interaction and visible partnership between the teachers (Murawski & Dieker, 2004). It involves instructional arrangements that would not be possible if only one teacher were present (Cook & Friend, 1995). Those involved in co-

teaching must be willing to compromise, discuss, and reach a consensus with their co-teacher. Being involved in co-teaching means your weaknesses are exposed. You have to be comfortable with that exposure and be willing to grow from one another (Cook & Friend, 1995). The amount of co-teaching that takes place has to be determined by looking at classroom makeup, grade level, distribution of students with IEPs, disciplines taught, and number of special educators available. These things can affect the co-teaching models used as teachers evaluate time available, classroom makeup, and logistics (Cook & Friend, 1995).

Needs for successful co-teaching. In this study, Research Question 3 looked at needs co-teachers identified as important for successful co-teaching. This study used quantitative and qualitative items from the Co-teaching and Inclusion Survey as well as qualitative items from the co-teacher focus groups to examine Research Question 3. This study found that co-teachers surveyed (n=18) identified the top four barriers to effective co-teaching as lack of collaboration and planning time, scheduling issues, lack of training, and limited resources. There were no significant differences between general and special educators in identifying these top four barriers. Co-teachers surveyed were also asked to identify the top four needs for successful co-teaching. Overall, co-teachers identified content knowledge of both teachers, compatibility of co-teachers, common planning time, and positive perspectives of inclusion and co-teaching as needs for the success of co-teaching. There existed significant difference between general and special educators in their ranking of compatibility of co-teachers as a need. General educators were more likely to give a higher rank to compatibility than special educators. There also existed a significant difference between general and special educators in their ranking of positive perspectives of inclusion and co-teaching as a need. Special educators were

more likely to give a higher rank to positive perspectives than regular educators. In qualitative survey and focus group questions, participants expanded on the top four barriers and needs. In addition to those already identified in the quantitative survey items, participants also identified choice in co-teaching, equality of co-teachers in the classroom, articulation of expectations from administration, clear and consistent goals for co-teaching, and clarification of co-teacher roles as additional needs for successful co-teaching.

In their metasynthesis of qualitative research, Scruggs et al. (2007) found several expressed needs of co-teachers that echo the finding of this research study. Needs identified in their research include administrative support, volunteerism (co-teaching pairs volunteer to teach together), common planning time, training, compatibility of co-teachers, and co-teacher partnership that resembles a “professional marriage” (Scruggs et al., 2007, p. 405). In their article on planning for effective co-teaching, Walther-Thomas, Bryant, and Land (1996) divided the needs associated with successful co-teaching into district level, building level, and classroom level. Needs that fall into the district level include goals, objectives, rationales, expectations, resource allocation, implementation plan, and staff development. Needs that fall into the building level include expectations/support, caseloads, student and teacher scheduling, co-teacher selection, and staff preparation. Last, needs that fall into the classroom level include roles and responsibilities, content strategies, management issues, and progress monitoring (Walther-Thomas et al., 1996).

With regard to Cook and Friend’s (1995) 10 questions to guide co-teaching program development, this research question was supported by Cook and Friend’s next two questions:

7. How can co-teachers maintain a collaborative working relationship?
8. What do co-teachers need to be successful?

At the heart of co-teaching is collaboration (Friend, 2000). Not only is collaboration a need for successful co-teaching, but common planning time for collaboration has also been identified through this research study and others. Successful collaboration involves co-teachers taking the time to get to know one another and discussing goals, expectations, philosophies, and hopes (Cook & Friend, 1995). For the success of co-teaching, Cook and Friend (1995) cited two needs: professional preparation for co-teaching and administrative support. In this study, qualitative survey and focus group discussions brought up the need for administrative support, guidance, and clarification of goals and expectations. In addition, co-teachers in this study largely indicated they had received no training in co-teaching and saw training as a need for successful co-teaching.

Cook and Friend's (1995) final two questions were not directly addressed in the design of this research study. This research study focused on the perceptions of co-teachers and did not include administration and program design in the research questions; however, focus group discussions and qualitative survey items brought up the need for administrative involvement, support, and guidance. Cook and Friend's (1995) final two questions address the needs expanded upon by the participants of this study:

9. How does one plan for a co-teaching program?
10. How should co-teaching be introduced?

Planning for co-teaching should involve administrative decisions and a task force of individuals to agree on a general description of what co-teaching should entail and how to design the program. Goals and objectives should be identified and should drive expectations for outcomes from the co-teaching partnership (Cook & Friend, 1995).

When introducing co-teaching to parents, teachers, students, and other stakeholders, clear purpose should be communicated and concerns should be addressed. The involvement of stakeholders and the way co-teaching is introduced can greatly affect response (Cook & Friend, 1995).

Limitations of the Study

In this study, there existed limitations that can affect the transferability of the results to other co-taught inclusion programs. Identifying these limitations will allow the reader to determine transferability to other co-teaching programs. The researcher is a co-teacher at ABCHS in East School District which was included in this study. While she was excluded in all research, it is possible her employment and relationships with colleagues could have affected participation in the Co-teaching and Inclusion Survey as well as the two focus groups. Participants may not have felt they could respond honestly during focus group questioning and discussions.

Another limiting factor was the small number of special education co-teachers who participated in the focus group. The researcher sent several emails to the 11 special education co-teachers asking for volunteers to participate in the focus group. The time and date of the focus group were changed to accommodate teachers and encourage more participation; however, only three special education co-teachers volunteered and participated. In addition, the regular educator focus group and the special educator focus group both had limitations in that only teachers from ABCHS volunteered to participate. Participation in the focus group from only one of the two high schools affected the transferability of conclusions across East School District.

Recommendations for Further Study

Based on the findings of this research study, the researcher has three

recommendations for further study to strengthen the effectiveness of co-teaching at the secondary level. The recommendations are identified in the following paragraphs.

Recommendation 1: Investigate administrator attitudes and perceptions of co-teaching. This research study investigated the perceptions general and special educators have of inclusion and co-teaching. Fitzpatrick et al. (2011) spoke about the importance of involving all stakeholders in the investigation and evaluation of a program. Perceptions of co-teaching and inclusion, opinions on effective co-teaching models, and perceived needs for successful co-teaching can, undoubtedly, vary from one stakeholder group to another. In this research study, the researcher did not include administrators and district personnel in investigating perceptions and needs of co-teaching and inclusion. In order to strengthen research pertaining to co-teaching and inclusion at the secondary level, this researcher recommends conducting a study of the perceptions and attitudes administrators at the school and district level have of co-teaching and inclusion. Administrator views on effective co-teaching models should also be investigated. In addition, the study should include administrator perceived needs for successful co-teaching.

Recommendation 2: Investigate parent/guardian attitudes and perceptions of co-teaching. In keeping with the idea that stakeholder involvement is important, this researcher recommends conducting a study of parent/guardian perceptions of co-teaching and inclusion. While there is a great deal of research on inclusion from the perspective of teachers and students, there is very little research pertaining to how parents/guardians of general and special education students feel about co-teaching. This researcher recommends conducting a study of the perceptions and attitudes parents/guardians have of co-teaching and inclusion. Parent/guardian views on effective co-teaching models

should also be investigated. In addition, the study should include parent/guardian perceived needs for successful co-teaching.

Recommendation 3: Investigate the impact of different co-teaching models on student achievement. Perception surveys and interviews of students and teachers have been conducted to investigate the use of and perceived effectiveness of Friend's (2000) six co-teaching models. In Keeley's (2015) study of student and teacher perceptions of co-teaching models, students indicated their confidence about learning was higher when Station Teaching, Alternative Teaching, Parallel Teaching, or Team Teaching were used. Students also felt One Teach/One Assist was significantly inferior when it came to their learning and confidence (Keeley, 2015); however, little student achievement data to support student opinion of co-teaching models have been collected. This researcher recommends further investigation of the use and effectiveness of different co-teaching models by comparing student achievement data through common assessments.

Implications

Administrative support. In the qualitative survey items related to needs for successful co-teaching as well as in focus groups, a recurring theme that emerged was the need for clarification of goals and expectations from school- and district-level administration. The co-teachers talked about the need for support and direction from administration and consistency in expectations from grade level to grade level throughout the school and across the district.

Mastropieri and Scruggs (2001) described characteristics of successful inclusive classrooms. In their description, they asserted that administrative support was associated with all successful inclusion efforts. No study in their metasynthesis contradicted this

conclusion. Some of the most important things administrators can do to promote co-teaching is to provide information about its collaborative arrangement and display a positive attitude concerning inclusion (Mastropieri & Scruggs, 2001; Murawski & Dieker, 2004). Administrative support is also linked to a number of additional issues in co-teaching (Scruggs et al., 2007).

A task force made up of school- and district-level personnel including co-teachers, special education personnel, curriculum specialists, and administrators could provide a foundation for establishing clear and consistent goals, expectations, and guidelines for effective co-teaching (Cook & Friend, 1995). Cook and Friend (1995) stated that goals are most realistic when they give attention to factors such as student needs, the attitude and receptivity of staff, and time for general and special educators to engage in collaboration and planning.

Among the strategies that administrators have used successfully to support co-teaching are (a) to help the co-teachers to plan and schedule their programs, (b) to provide incentives and resources that allow co-teachers to design and reflect about desirable changes in the way they provide services, and (c) to assist teachers in setting priorities that will protect their limited time. (Cook & Friend, 1995, p. 16)

Co-teacher training. Participants in this research study overwhelmingly indicated through survey responses and focus groups that they lacked training in co-teaching and inclusion. The co-teachers talked about their need to receive training and professional development alongside their co-teaching partner. They also expressed interest in observing successful co-taught classrooms inside and outside the district.

A metasynthesis of qualitative research related to inclusion and co-teaching found teachers identified a need for training in these areas related to co-teaching: flexible

thinking, strategies, skill development, co-teaching models, the use of technology, characteristics of disabilities, collaboration skills, interpersonal skills, and effective communication (Scruggs et al., 2007).

Co-teacher training at the preservice level could have an impact on the attitudes of preservice teachers concerning the inclusion of students with special needs. They could become more receptive to having students with special needs and a co-teacher in their general education classroom. It could also increase their confidence in entering a co-teaching partnership (Gill et al., 2009). Co-teacher training for teachers who are already serving as co-teachers also offers benefits of additional (or initial) skill development. Communication skills, instructional strategies, and collaborative planning can all be enhanced through ongoing professional development. Special educators might need additional training in specific content areas, while general education teachers might need to learn more about students with disabilities (Cook & Friend, 1995).

Equality. Participants in this study expressed concern in the fact that there is a lack of equality between the general education teacher and the special education teacher in the classroom. Both groups agreed that, for the most part, the general education teacher is the master of content and is the one who plans and delivers the bulk of the instruction. The general education teacher is also the one who generally assigns roles for the co-teaching team. They also agreed that the special educator acts as the support person or assistant in the classroom. They offer support to the general education teacher in suggesting instructional strategies and taking care of small tasks within the classroom. Special education co-teachers also offer support to students in the form of one-on-one help and small-group remediation. In addition to the inequalities concerning roles in the classroom, co-teachers expressed concern with students seeing the special education

teachers as less-skilled assistants. They noted that on a student's schedule, only the general education teacher is listed. As a result, students and their parents can be confused to learn that the class actually has two teachers who share equal responsibility for the instruction of students in the room. One focus group participant summed up the lack of equality when she recounted helping a student in her co-taught math class: "I had one say to me one time 'You're good at this. Why don't you be a teacher?'" (Focus Group Participant, personal communication, November 13, 2017).

Murawski and Dieker (2004) stated that any collaborative relationship can be doomed if one of the partners dominates. Co-teachers should share equally in the roles of engaging in the planning stage, instructing students, and assessing students (Murawski & Deieker, 2004). "Each teacher brings important knowledge and skills to the classroom, and they learn from each other without trying to be interchangeable. They strive for true parity, being equally valued for their individual contributions, rather than being identical" (Friend, 2015, p. 21).

If co-teachers are equals in the classroom, instructional quality could be increased. With both teachers involved in planning instruction, instructional delivery is able to move from One Teach/One Assist to a model that has been identified as more effective by teachers and students such as Station Teaching, Parallel Teaching, Alternative Teaching, or Team Teaching. The move to a more effective co-teaching model would also demonstrate the equality of the co-teachers to students as they would be receiving substantial instruction from both co-teaching partners.

Scheduling. Participants in this research study identified scheduling issues as one of the barriers to effective co-teaching. Further clarification through qualitative survey items and focus groups found that when teachers referred to scheduling issues, they were

referring both to more common planning time and attention to scheduling of students and teachers as a need for successful co-teaching.

Walther-Thomas et al. (1996) indicated that to achieve appropriate classroom configurations, co-taught classes need to be scheduled by hand. Scheduling students in co-taught classrooms involves keeping the principle of natural proportions in mind (Walther-Thomas et al., 1996). Cook and Friend (1995) agreed when they stated that the number of students with special needs scheduled in a particular classroom should mimic the overall ratio of general education students to special needs students at the school. In addition to hand scheduling students in co-taught classrooms with careful attention to ratios, it is also important for co-teachers to have scheduled time for planning and collaborating together.

Careful attention to scheduling of co-taught classes, planning times, and scheduling of students could impact the co-taught classroom with an increase in effective co-teaching practices. “Longevity of co-teaching pairs does not ensure the effectiveness of the co-teaching pairs. However, quality co-teaching is predicated on common co-planning time, which leads to more consistent and thoughtful implementation of co-teaching” (Simmons & Magiera, 2007, p. 10).

Conclusions

As the need to educate students in the LRE has evolved, the implementation of co-teaching as a strategy for student instruction has become the preferred method. Co-teaching provides classrooms with two teachers with equal qualifications who both deliver a substantive amount of instruction to the entire class. One of those teachers specializes in content knowledge, while the other teacher specializes in special education. In a co-taught classroom, a diverse group of students is given the opportunity to learn

from two teachers who have common goals and expectations. This offers more opportunity for individual and small group help and instruction through a decreased student/teacher ratio. With co-teaching, there is an opportunity for more effective instruction and increased academic success for students.

This chapter presented the findings of the sequential explanatory mixed-methods study of inclusion and co-teaching at the secondary level. This study investigated co-teacher perceptions of inclusion and co-teaching, the extent to which Friend's co-teaching models were used, and the perceived needs of co-teachers for successful co-teaching. This study found that both regular and special education co-teachers had a favorable view of co-teaching and inclusion. They agreed that it is effective and co-teaching provided more instructional intensity than teaching alone. This study also found that while One Teach/One Assist was the most used co-teaching model, Team Teaching was identified as the most ideal model for effective co-teaching. In addition, co-teachers cited content knowledge of co-teachers, compatibility of co-teachers, common planning, positive perspectives of inclusion, and training as needs for successful co-teaching. This chapter also presented limitations of the study and recommendations for further study. Last, this chapter outlined implications of this research study.

It is the opinion of this researcher that the essence of co-teaching is based upon seeing students as unique individuals with unique needs and doing whatever it takes to meet the needs of all students. Even with the appointment of co-teaching rather than volunteering, coupled with the lack of training, this researcher has experienced enthusiasm from colleagues in their role as co-teachers. It seems that co-teachers overwhelmingly believe that what they are doing benefits students. Meeting the needs of all students is what co-teaching is all about.

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Appendix A

Inclusion and Co-teaching Survey Items

Co-Teaching and Inclusion Survey Items
<p>1. Are you a general educator or a special educator? Choose the one that applies.</p> <p>General Educator Special educator</p>
<p>2. How many years have you been a co-teacher in an inclusion class?</p> <p>Less than 1 year, 1 to 2, 3 to 4, 5 or more</p>
<p>3. Approximately what percentage of students in your inclusion class have IEPs?</p> <p>Less than 10%, 11-25%, 26-40%, 41-65%, 66-80%, 81-95%, 95% or more</p>
<p>4. Did you receive training in co-teaching prior to becoming a co-teacher?</p> <p>Yes No</p>
<p>5. Have you received training in co-teaching during your time as a co-teacher?</p> <p>Yes No</p>
<p>6. Please indicate where you have received training in co-teaching. Check all that apply.</p> <p>District training Training outside of the district University training (undergraduate) University training (graduate) I haven't received training Other (explain)</p>
<p>The following questions require you to rank statements pertaining to co-teaching on a scale of 1 to 5. A ranking of 1 indicates you strongly agree with the statement. A ranking of 5 indicates you strongly disagree with the statement.</p>
<p>7. My co-teacher and I believe that what we do together in co-teaching is better than what either of us would accomplish separately.</p> <p>1 strongly disagree 2 disagree, 3 neutral, 4 agree 5 strongly agree</p>
<p>8. Instructional delivery in co-taught classes is different from what occurs in other classes taught by the general education teacher.</p> <p>1 strongly disagree 2 disagree,</p>

<p>3 neutral, 4 agree 5 strongly agree</p>
<p>9. Instructional intensity in my inclusion class is greater than would be possible with only one teacher present.</p> <p>1 strongly disagree 2 disagree, 3 neutral, 4 agree 5 strongly agree</p>
<p>10. I understand the purpose/goals of our co-teaching program.</p> <p>1 strongly disagree 2 disagree, 3 neutral, 4 agree 5 strongly agree</p>
<p>11. What is the rationale for co-teaching? Open ended</p>
<p>12. What is your perception of the role of your co-teaching partner? Open ended</p>
<p>13. What is your perception of your role as a co-teacher? Open ended</p>
<p>14. What does co-teaching look like in your inclusion classroom? Indicate the co-teaching approach used most in your inclusion classroom by giving a ranking of 1. Then, continue to rank each co-teaching approach giving your second most used co-teaching approach a ranking of 2, and so on.</p> <p>_____ One Teach/One Observe: One teacher presents the lesson while the other teacher observes and assists students as needed.</p> <p>_____ Station Teaching: Teachers provide instruction to individuals at stations as students rotate through.</p> <p>_____ Parallel Teaching: Students are divided into two groups and each teacher works with a group to present material in the same way or in two different ways.</p> <p>_____ Alternative Teaching: Most students remain with one teacher while the other teacher works with a group of students for enrichment, re-teaching, etc.</p> <p>_____ Team Teaching: Students remain in a single group and teachers co-instruct. _____ One Teach/One Assist: One teacher leads instruction to the entire group while the other teacher interacts briefly to answer questions, offer assistance and focus student attention.</p>
<p>15. In an ideal co-teaching partnership, how would you distribute the use of each co-teaching approach to create a successful inclusion classroom? Indicate the co-teaching approach used most in an ideal inclusion classroom by giving a ranking of 1. Then, continue to rank each co-teaching approach giving the second most used co-teaching approach in an ideal classroom a ranking of 2, and so on.</p> <p>_____ One Teach/One Observe: One teacher presents the lesson while the other teacher observes and assists students as needed.</p>

<p>_____ Station Teaching: Teachers provide instruction to individuals at stations as students rotate through.</p> <p>_____ Parallel Teaching: Students are divided into two groups and each teacher works with a group to present material in the same way or in two different ways.</p> <p>_____ Alternative Teaching: Most students remain with one teacher while the other teacher works with a group of students for enrichment, re-teaching, etc.</p> <p>_____ Team Teaching: Students remain in a single group and teachers co-instruct. _____ One Teach/One Assist: One teacher leads instruction to the entire group while the other teacher interacts briefly to answer questions, offer assistance and focus student attention.</p>
<p>16. What do you believe to be the greatest barriers to effective co-teaching at your school? Please check the top four barriers.</p> <p>Lack of training or PD Personality or philosophical clashes Negative teacher perspectives Limited resources Scheduling issues Reluctance to lose control Lack of time for collaboration Lack of administrative support</p>
<p>17. Are there other barriers to effectiveness that were not mentioned above or that you would like to explain? Open ended</p>
<p>18. What do you believe to be the greatest needs co-teachers have that are important to the success of co-teaching? Please indicate your greatest need by a ranking of 1. Your second greatest need by a ranking of 2, and so forth.</p> <p>Common planning time Mindfulness of scheduling class size and composition Professional development Administrative support The ability to choose to co-teach (volunteerism) Positive perspectives of inclusion and co-teaching Compatibility with co-teacher Content knowledge of both teachers</p>
<p>19. Are there other needs for successful co-teaching that were not mentioned above or that you would like to explain? Open ended</p>

Appendix B

Email Invitation to Participate in Survey

Hello,

I am currently working on a research study that focuses on investigating inclusion and co-teaching at the secondary level. I would appreciate you taking the time to complete the Inclusion and Co-teaching Survey.

The survey should take about 10 minutes of your time. Your responses are voluntary and will be confidential. Responses will not be identified by individual. All responses will be compiled together and analyzed as a group. Neither your choice to participate nor your responses to this survey have any impact on you as a teacher and employee of Fort Mill School District or your individual school. The survey can be accessed by following this link and by clicking the link, you are consenting to taking the survey, Inclusion and Co-teaching Survey (opens in new window).

The informed consent information for participation in the survey is found below.

Informed Consent

The purpose of the research study is to investigate investigating inclusion and co-teaching at the secondary level. The purpose of this focus group is to identify trends in perception and practice of inclusion and co-teaching at the secondary level in Fort Mill School District.

In this study, you will complete an inclusion and co-teaching survey which will take about 15-20 minutes of your time. Participation in this study is voluntary. You have the right to withdraw from the research study at any time without penalty. You also have the right to refuse to answer any question(s) for any reason without penalty. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identified state.

The information that you give in the study will be handled confidentially. Your data will be anonymous which means that your name will not be collected or linked to the data. Because of the nature of the data, it may be possible to deduce your identity; however, there will be no attempt to do so, and your data will be reported in a way that will not identify you.

There are no anticipated risks in this study. There are no direct benefits associated with participation in this study. The study may help us to understand effective practices associated with inclusion and co-teaching at the secondary level. The Institutional Review Board at Gardner-Webb University has determined that participation in this study poses minimal risk to participants. You will receive no payment for participating in the study.

If you have questions about the study, contact the following individuals.

Erin Keene
School of Education
Gardner-Webb University
Boiling Springs, NC 28017
XXXXXX

Dr. Jennifer Putnam
School of Education
Gardner-Webb University
Boiling Springs, NC 28017
704-406-2015
jputnam2@gardner-webb.edu

If the research design of the study necessitates that its full scope is not explained prior to participation, it will be explained to you after completion of the study. If you have concerns about your rights or how you are being treated, or if you have questions, want more information, or have suggestions, please contact the IRB Institutional Administrator listed below.

Dr. Jeffrey S. Rogers
IRB Institutional Administrator
Gardner-Webb University
Boiling Springs, NC 28017
704-406-4724
jrogers3@gardner-webb.edu

If you are ready to take the survey, click here [Inclusion and Co-teaching Survey](#) (opens in new window). By clicking the survey link, you are indicating consent in participation.

Thank you!
Erin Keene

Appendix C

Email Invitation for Special Education Co-teacher Focus Group

In the current semester, you are a special education co-teacher in an inclusion classroom at ABCHS or XYZHS. I am currently working on a research study that will investigate inclusion and co-teaching in secondary classrooms. I would like to invite you to participate in a focus on November 7, 2017 at 4:00pm in the guidance conference room at ABCHS. The focus group should last no longer than one and a half hours and snacks will be provided. The focus group will be made up of four to six secondary level, special education co-teachers in the School District.

In October, a survey regarding inclusion and co-teaching was sent to all inclusion/co-teachers at ABCHS and XYZHS. The purpose of this focus group is to find out more about trends that were identified from these surveys regarding inclusion and co-teaching in our high schools.

Participation in this focus group is voluntary and has no impact on your employment at ABCHS or XYZHS. While the focus group will be audio taped, no personal identifying information will be recorded for the participants. If you are willing to participate in this focus group, please respond to Erin Keene (XXXXXXXX) by Tuesday, November 1.

Thank you!

Erin Keene

If you have any questions or concerns, please contact Erin Keene, Gardner-Webb Ed.D. candidate XXXXX

Appendix D

Email Invitation for Regular Education Co-teacher Focus Group

In the current semester, you are a regular education co-teacher in an inclusion classroom at ABCHS or XYZHS. I am currently working on a research study that will investigate inclusion and co-teaching in secondary classrooms. I would like to invite you to participate in a focus on November 7, 2017 at 4:00pm in the guidance conference room at ABCHS. The focus group should last no longer than one and a half hours and snacks will be provided. The focus group will be made up of four to six secondary level, regular education co-teachers in the School District.

In October, a survey regarding inclusion and co-teaching was sent to all inclusion/co-teachers at ABCHS and XYZHS. The purpose of this focus group is to find out more about trends that were identified from these surveys regarding inclusion and co-teaching in our high schools.

Participation in this focus group is voluntary and has no impact on your employment at ABCHS or XYZHS. While the focus group will be audio taped, no personal identifying information will be recorded for the participants. If you are willing to participate in this focus group, please respond to Erin Keene (XXXXXX) by Tuesday, November 1.

Thank you!

Erin Keene

If you have any questions or concerns, please contact Erin Keene, Gardner-Webb Ed.D. candidate, XXXXXX

Appendix E

Informed Consent for Focus Groups (Regular and Special Educators)

Gardner-Webb University IRB
Informed Consent Form

Title of Study: Co-teaching in Inclusion Classrooms: An Investigation of Secondary Inclusion Practices

Researcher: Erin Keene, EDCI candidate

Purpose: The purpose of the research study is to investigate inclusion and co-teaching in secondary classrooms. In October, a survey regarding inclusion and co-teaching was sent to current regular and special education co-teachers at ABCHS and XYZHS. The purpose of this focus group is to find out more about trends that were identified from the survey regarding inclusion and co-teaching at the secondary level in the School District.

Procedure:

What you will do in the study: Participate in a focus group with four to six other regular or special education co-teachers at ABCHS and XYZHS to investigate inclusion and co-teaching practices. While the focus group will be audio taped, no personal identifying information will be recorded for the participants.

Time Required: It is anticipated that the study will require about 90 *minutes* of your time.

Voluntary Participation: Participation in this study is voluntary. You have the right to withdraw from the research study at any time without penalty. You also have the right to refuse to answer any question(s) for any reason without penalty. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identified state.

Confidentiality: The focus group will be audio recorded and then transcribed. That data will be coded for inclusion and co-teaching practice themes. No identifying factors of participants will be recorded. Then at the end of the research study all audio recordings and transcripts of recording will be shredded.

Risks: There are no anticipated risks in this study.

Benefits: There are no direct benefits associated with participation in this study. The study may help us to understand effective practices associated with inclusion and co-teaching at the secondary level.

The Institutional Review Board at Gardner-Webb University has determined that participation in this study poses minimal risk to participants.

Payment: You will receive no payment for participating in the study.

Right to Withdraw from the Study: You have the right to withdraw from the study at any time without penalty.

How to Withdraw from the Study

- If you want to withdraw from the study, please tell the researcher and leave the room. There is no penalty for withdrawing.
- If you would like to withdraw after your materials have been submitted, please contact Erin Keene, XXXXXXXXXXXXX.

If you have questions about the study, contact the following individuals.

Erin Keene
School of Education
Gardner-Webb University
Boiling Springs, NC 28017
XXXXXXXXXX

Dr. Jennifer Putnam
School of Education
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704-406-2015
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If the research design of the study necessitates that its full scope is not explained prior to participation, it will be explained to you after completion of the study. If you have concerns about your rights or how you are being treated, or if you have questions, want more information, or have suggestions, please contact the IRB Institutional Administrator listed below.

Dr. Jeffrey S. Rogers
IRB Institutional Administrator
Gardner-Webb University
Boiling Springs, NC 28017
704-406-4724
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Voluntary Consent by Participant

I have read the information in this consent form and fully understand the contents of this document. I have had a chance to ask any questions concerning this study and they have been answered for me.

_____ I agree to participate in the focus group I understand that this interview may be audio recorded for purposes of accuracy. The audio recording will be transcribed and destroyed.

_____ I do not agree to participate in the focus group.

Participant Printed Name

Date: _____

Participant Signature

Date: _____

You will receive a copy of this form for your records.

Appendix F
Focus Group Protocol

Focus Group Protocol

Opening Question/Statement:

Thank you for your willingness to participate in this focus group. Your answers here are completely confidential. With your permission, themes that emerge from this focus group will be included in a dissertation and will be submitted to Gardner Webb University. Research study finding will also be shared with the School District personnel. At no point will names or other information be provided that may identify you. In addition, you have the right to refuse to answer any question, or to leave at any time.

Ice Breaker:

What was your favorite subject and/or class when you were a student?

Demographic questions:

- What subject area do you teach?
- How many years have you been a co-teacher?

Questions for focus group:

1. Have you received training in co-teaching inclusion classrooms?
 - a. If so, where/when did you receive training?
 - b. What did you learn from your training about using inclusion and co-teaching effectively?
2. Tell me about a typical day in your inclusion classroom. Look at the handout of Friend's co-teaching models. Which of these describes what you do in your co-taught classroom?
 - a. How much of your time is spent co-teaching?
3. What roles and responsibilities does each teacher take during instruction in the co-taught classroom?
4. What do you find successful about your co-teaching partnership?
5. What do you find that is not successful about your co-teaching partnership?
6. What do you think you need in order to be more successful?

Debriefing Statement:

This study does not employ deception in any form. At the completion of the study, participating teachers will be provided an opportunity to debrief and discuss the process with the researcher as outlined by the current IRB guidelines.