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Many general education and special education teachers report being unprepared for the challenges of serving students with disabilities in the general education classroom (Kloo & Zigmond, 2008; Rea & Connell, 2005) and lacking skills necessary for co-teaching and collaborating within the school community (Grant & Gillette, 2006; Little & Theiker, 2009). The purpose of this study was to survey general and special education teachers (N=149), who were recent graduates of one teacher education program in the southeastern Unites States, on their perceptions of the effectiveness of their teacher education program in preparing them to co-teach.

Variables included area of certification, years of experience, co-teaching experience and personal demographics along with descriptions of the extent that co-teaching was perceived to have been discussed, modeled, observed, and coached during the teacher education program and later practiced in classroom settings. Most participants were female, taught at the elementary level, held a bachelor's degree, and had three or less years of teaching experience.

Results indicated many graduates had some orientation to co-teaching and perceived the teacher education program as relatively effective in preparing them to co-teach. However, data suggest variation in the amount of exposure to co-teaching preparation, field experiences, and subsequent skill attainment for co-teaching across the program. Additionally, implementation of co-teaching practices varied among

participants, as did experiences and satisfaction with the co-teaching model. These findings may inform the teacher education program in future decision making to benefit future teacher candidates by providing enhanced course content and field experiences that focus more directly on acquisition of co-teaching knowledge and skills.

EARLY CAREER TEACHERS' PERCEPTIONS OF THEIR PREPARATION FOR AND INITIAL EXPERIENCES IN CO-TAUGHT CLASSROOMS

by

Cynthia Thrasher Shamberger

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Approved by

Marilyn Friend_____
Committee Chair

Dedicated to:

My husband, Michael, for his love, hard work, and encouragement.

Our children Kelly and Ben, and my mother, Maggie Thrasher for all their support.

My wonderful extended family and faithful friends for their many prayers and kind acts.

To God be the glory for the things he has done.

APPROVAL PAGE

This dissertation has been approved by the following committee of Faculty of the Graduate School at the University of North Carolina at Greensboro.

Committee Chair _____
Marilyn Friend

Committee Members_____
Betty Epanchin

_____
William Bursuck

_____
Carl Lashley

_____
Date of Acceptance by Committee

_____
Date of Final Oral Examination

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CHAPTER I

INTRODUCTION

Collaboration is such an integral part of current conversations related to education that it has become an educational buzzword (Friend & Cook, 2010). The heightened focus on collaborative practices in K-12 school settings has increased as more diverse learners fill today's classrooms (Carter, Prater, Jackson, & Marchant, 2009). This focus is driven mainly by the legislative mandates of the *Elementary and Secondary Education Act of 2001*(ESEA), formerly, *No Child Left Behind*, and the *Individuals with Disabilities Education Improvement Act of 2004* (IDEA). This legislation set higher standards of academic accountability for students with disabilities to ensure that these students a) have access to the general curriculum, b) are educated in the least restrictive school setting, and c) achieve according to their potential (Cook & Friend, 2010). To adequately address these legislative mandates, general education teachers, special education teachers, and administrators are called upon to work collaboratively to provide access to the general education curriculum for all students and to engage parents in collaboration that supports learning (Commission on Excellence in Special Education, 2002). Additionally, school reformers advocate collaboration between general and special educators for the delivery of instruction and special education services in general education classrooms with heterogeneous student groups (Mohr & Dichter; 2001, Friend & Cook, 2010; Cook & Friend, 2010).

The popularity of collaboration as a topic in the field of education seems unlimited in its scope. It exists across multiple education levels (elementary, middle, and high school) and spans geographic settings. Moreover, researchers have associated the extent to which a school is effective with the extent to which its culture is collaborative (Waldron & McLeskey, 2010). For example, in a study of high-performing schools - four elementary and two middle (two each from Colorado, Kentucky and Nebraska)- Caron and McLaughlin (2002) found that collaboration was a critical factor in success with improving educational outcomes for all students, including students with disabilities. Nieto (2009) asserts that collaboration within school districts and involving school-university partnerships are foundational to teacher-friendly professional development which results in higher levels of student achievement. Similarly, Idol (2006) found in a program evaluation of eight schools (four elementary, two middle, and two high schools in the southwest region of the country) that teachers in schools where inclusive practices were implemented effectively perceived themselves as being collaborative. In a large, urban Midwestern school district, the results of a study conducted by Goddard, Goddard, & Tschannen-Moran (2007) suggested a positive link between teacher collaboration for school improvement and student achievement.

A study by Silverman, Hazelwood, & Cronin (2009) analyzed the change processes utilized in several school districts in the state of Ohio that made steady improvement in student outcomes over a four year testing period. Strategies and processes that led to increased achievement among students with disabilities were identified by the top performing schools across the state. Strategic collaboration among

general and special education teachers and their administrators was cited as one of the four most important practices employed by the effective schools (Silverman, Hazelwood, & Cronin, 2009). Additionally, Kams (2006) described the change process employed to raise student achievement at a middle school in Sacramento. Collaboration was mentioned along with professional development on instructional effectiveness and knowledge of how students learn as key elements in producing better student outcomes.

In addition to research supporting a positive link between collaboration and school achievement, another indicator of school effectiveness exists. Co-teaching, a service delivery model that focuses on access to the general curriculum for students with special needs (Friend, 2008), is one specific school application of collaboration that has been a key factor in school improvement initiatives for several decades and will likely continue for many more (NBPTS, 2004). The current trend toward co-teaching is an indicator of the belief that the effectiveness of a school depends heavily upon its commitment to collaborative practices. This is largely due to the fact that co-teaching is a highly collaborative means of delivering special education services (Friend, 2010).

The Need for Research on Collaboration and Co-Teaching

General education and special education teachers are being called upon to function in the roles of collaborator and co-teacher in order to meet the challenges presented in today's diverse school settings (Cramer & Stivers, 2007; Gerlach, 2005; Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010). Many researchers have examined how collaboration and co-teaching practices have been implemented in school settings (Sawyer & Rimm-Kaufman 2007). A few studies have been conducted on

preservice programs (Varrati, Lavine, & Turner, 2009). However, little attention has been given to the effectiveness of preservice programs in preparing candidates to co-teach. Research on collaboration and co-teaching and how they relate to school effectiveness needs to develop more of a focus on how general education and special education teachers are prepared to participate in school collaboration, in general, and partnerships such as co-teaching, in particular. Therefore, investigating the importance of developing collaboration skills during teacher education became the impetus for this study. The goals of the study were to (a) to add to the knowledge base on collaboration as it relates to teacher education (including both general and special educators), (b) explore teacher perceptions of their preparedness to collaborate and co-teach, and (c) continue research efforts to explore factors critical to understanding teacher education and its relationship to co-teaching as a collaborative practice.

Conceptual Framework

Educators are becoming increasingly aware that all students and other educational stakeholders benefit when collaboration is prioritized by the learning community (Bush, 2003). A contributing factor to the success of collaborative instructional delivery, especially among general and special education teachers and general education teachers is their understanding of and attitudes toward collaboration (White-Clark, 2005). Thus, an examination of general and special education teachers' perceptions of their preparation program and early co-teaching experiences was determined to be a beneficial research endeavor.

This study used an instrument designed to measure teachers' perceptions based on

the *Colorado Assessment of Co-Teaching* (CO-ACT) (Adams, Cessna & Friend, 1993, in Friend, 2008) and the *Perceptions of Co-Teaching Survey* (Austin, 2001). The CO-ACT assesses three factors associated with effective co-teaching partnerships: a) personal prerequisites; b) the professional relationship; and c) classroom dynamics. The Perceptions of Co-teaching Survey also focuses on such factors as the value and use of effective instructional strategies, teacher preparation, and the value assigned to school-based supports (Austin, 2001). The conceptual framework for this study is based on a construct employed by Friend and Cook (1990, 2007, 2010). For decades, Friend & Cook (2010) have presented a model for learning about the concept of collaboration and the factors needed for building effective partnerships in K-12 settings. Important components include personal commitment, communication skills, school-related interactions, programs, services and content). In addition, Friend & Cook have emphasized that co-teaching occurs between two or more equal parties (usually a general and special educator or a related services professional) to provide substantial instruction to a heterogeneous group of students, including those with disabilities and other special needs, in a single classroom (Friend & Cook 1990; Cook & Friend, 1991; Friend, Reising, & Cook, 1993; Friend & Cook, 2010).

Purpose of the Study

Despite the fact that research and legislation have encouraged educators to move away from classroom isolation into the arena of collaboration, the supply of skilled collaborators in many school settings remains scarce (Grant & Gillette, 2006; Hines, 2008). In addition, a more important problem exists. Few data document the extent to

which teachers are provided with specific instruction on co-teaching skills in their teacher education programs, specifically in preparation for collaborative school practice. The purpose of this study was to use a survey instrument based on the work of Friend & Cook, as well as Austin, (2003, 2007, 2010; Austin, 2001), the *Teacher Education Program and Co-Teaching Survey* (TEPACTS), to explore how early career (five or fewer years of experience) general and special educators perceive the effectiveness of their teacher education program in preparing them to be collaborators within school settings. The study also examined teachers' perceptions of how well their teacher education program prepared them to co-teach. The goal was to discover strengths and challenges in a teacher education program and to provide recommendations for improvements that would potentially lead to more collaboratively competent educators. A relationship was expected between teachers who reported the extent to which the teacher education program prepared them to co-teach and those who described their co-teaching experiences as having been effective in addressing the challenges in heterogeneous classrooms and twenty-first century schools. However, results from this research need to be replicated with more studies.

Research Question

This study explored how well new teachers are being prepared to face the challenges of the twenty-first century classroom. An instrument called the *Teacher Education Program and Co-teaching Survey* (TEPACTS) was developed and administered to early career teachers, that is, those having 5 years or fewer of teaching experience. The survey was a means for educators who are relatively new to the field to

describe their teacher education program in relation to co-teaching and their co-teaching experiences. The research question the study addressed was this:

How well are teachers prepared to co-teach?

Within that defining question, the following sub-questions were addressed:

1. What are the perceptions of general education teachers regarding their teacher education program's effectiveness in preparing them to co-teach?
2. What are the perceptions of special education teachers regarding their teacher education program's effectiveness in preparing them to co-teach?
3. What are the experiences of general education teachers regarding co-teaching early in their careers?
4. What are the experiences of special education teachers regarding co-teaching early in their careers?
5. What knowledge and skills do early career teachers believe would have facilitated their co-teaching practice?

Definition of Key Terms

Important to this study is the vocabulary used by school professionals. The concept of collaboration is often misunderstood. Several other terms are sometimes used interchangeably, but inappropriately, in relation to collaboration, such as collaborative teaching, co-teaching, inclusion, and inclusive practices (Paulsen, 2008). The following are the definitions for these terms used in this study.

Collaboration

Collaboration is a style of interpersonal relationship that exists between at least

two parties having equal value and sharing in the decision-making process necessary to reach a common goal (Friend & Cook, 2010).

Collaborative teaching

Austin (2001) explains that the collaborative teaching model in the special education context consists of several components. In this model, the special education teacher serves as a consultant to the general education teacher. Additionally, co-teaching is carried out in conjunction with a general education teacher in the general classroom setting for part or all of the school day.

Co-teaching

According to Friend (2008), co-teaching is an instructional service delivery approach provided by two educators. Typically, a general education teacher and a special education teacher or another related service professional jointly utilize their expertise to provide instruction in one heterogeneous classroom. Students with disabilities or having other educational needs receive special education and related services for part or all of the school day in the general education setting alongside typically developing students.

Inclusion

The term *inclusion* is defined as a system of beliefs held by school professionals and other stakeholders that students are most effectively educated in communities of learning where all students are held to high expectations (Friend & Shamberger, 2008). In addition, students participate in the learning process within the least restrictive environment and with the appropriate supplementary aids and services, having full access to the general education curriculum (Friend & Shamberger, 2008).

Some educators focus on the location where students with disabilities receive their education and argue for *full inclusion*. By this they mean that students spend all their time daily in the general curriculum setting with no time allocated for resource or other special services (Idol, 2006). Further, Acrey, Johnstone, & Milligan (2005) have expanded this definition of inclusion to include students who are English language learners or others with special learning needs. However, as Friend & Shamberger (2008) emphasize, ensuring that students are seated in the general education classroom does not guarantee that those students' needs are met and that they are full and welcome participants in the classroom community. Sadly, it is often the contrary (Friend & Shamberger, 2008). Thus, those authors discourage the use of this term.

Inclusive practices

This is an alternative, possibly more accurate, term for inclusion which is intended to convey the multidimensional nature of such an approach to schooling. This conceptualization emphasizes collaboration among school professionals for the sake of providing a welcoming and appropriate learning community for all students and often is referred to as inclusive practices (McLeskey & Waldron, 2007b; Friend & Shamberger, 2008).

Limitations of the Study

The survey instrument used in this study was developed to collect information on participant perceptions about their teacher education program in relation to co-teaching and their co-teaching experiences. Several limitations should be kept in mind when interpreting the data reported. First, the response rate was much lower than desired. The

primary access with the sample was through electronic means. Not surprisingly, many email addresses of the teacher education program graduates were not valid. It is unknown whether those excluded because of this differed in any significant way from those who were able to be contacted. Additionally, some teachers were excluded from the study because they placed restrictions on their contact information. That is, upon graduation, they instructed the university to cease further contact. More details on other factors that contributed to the low response rate are described in Chapter IV, Results.

Second, all of the participants in this study were graduates of one teacher education program at a public university in the southeast. Variation in the structure of teacher preparation programs might yield different results if this study were replicated in other universities in other regions. Additionally, although equal representation of general and special education teachers was not expected, neither was the extremely small proportion of special education participants. Thus, any potential findings may be skewed and not generalizeable to other teacher education programs or to other regions. If this study were replicated with more even percentages of general and special education teachers, different conclusions may have been reached.

Third, data were collected only from early career teachers, having one to five years of experience. This was done in order to enlist teachers with the potential for the greatest ability to recall their teacher education and early co-teaching experiences. Therefore, alumni from the teacher education program with more than five years of experience were excluded from participation. This may have been a limitation because some of the perceptions held by participants in this study may have been different from

teachers who had more than five years of experience.

Fourth, individual definitions of the concepts addressed in the study varied considerably. Some respondents referred to their student teaching experience with their cooperating teacher as co-teaching. According to the definition of co-teaching used in this study, (i.e., joint delivery of instruction between two equally certified professionals – usually a general and special educator) the term was usually used inaccurately. Other responses suggested that co-teaching was defined as having a special education teacher assigned to help in general curriculum classrooms.

Finally, perception data are based on the self-report of participants. The current study sought data from participants which required them to recall experiences and their reactions to them over a period of up to five years. This type of data collection has the potential to be less accurate, and thus, perception research has been considered by some researchers to be limited in its usefulness (Zigmond & Magiera, 2001; Weiss, 2004).

Significance of the Study

The significance of this study is that its findings may be influential in future decision-making regarding course enhancement and field experience development in teacher education and continued school reform efforts. However, the study has limited generalizability since all of the participants were from one university. Replication studies involving The preparation of teachers who graduate with knowledge and skills in co-teaching as collaborative practice enables them to effectively address the needs of students with disabilities and other diverse learners, ensuring all students reach their academic achievement potential (McDuffie, 2009).

Further, collaboration skills, including those necessary for effective co-teaching, have been identified as critical competencies needed by teachers in today's increasingly diverse classrooms (Grant & Gillette, 2006). Researchers emphasize the role of federal mandates regarding expectations for higher levels of collaboration among all those involved in delivering special education services to eligible students. These laws also communicate heightened collaboration for team decision-making and participation of general educators in most IEP meetings as well as reinforce the importance of parent participation (Cook & Friend, 2010). Data from this study may be useful for enhancing courses and fieldwork to include or increase opportunities for general and special education preservice teachers to collaborate and co-teach during their teacher education program, including field experience placements.

CHAPTER II

LITERATURE REVIEW

Schools have seen exponential growth in diverse student populations and the challenges associated with providing effective education for all students (Cook & Friend, 2010). Concurrently, over the last several decades, public schools across the country have been experiencing growth in the numbers of students with disabilities who receive the majority of their instruction in general education classrooms (Cook & Friend, 2010). Consequently, the call for more collaborative school settings by school reformers has continued into the present (Gable & Manning, 1997; Little, 2000; Waldron & McLesky, 2010).

Additionally, 20 years of federal mandates have prompted greater emphasis on developing a more collaborative climate in 21st century schools, especially between general and special education teachers regarding the inclusion of students with disabilities in general education classrooms (Smith, 2005). Hence, the term inclusion increasingly became associated with school reform and collaboration. However, at no time, past or present, has the term *inclusion* ever appeared in the *Individuals with Disabilities Education Improvement Act of 2004* (IDEA), current federal special education law (Friend & Shamberger, 2008). Rather, inclusion is an interpretation of several components of IDEA (Hyatt, 2007). Together, these components require that the preferred setting for students with disabilities is the general curriculum setting with

appropriate supplementary aids and related services (Friend & Shamberger, 2008). Thus, the heightened interest in collaboration becomes even more apparent. Districts that have initiated more collaborative school cultures often choose co-teaching as a service delivery model for providing services to students with disabilities and other special learning needs who have been included in the general curriculum classroom (Wilson 2005; Murawski & Hughes, 2009). Co-teaching also is considered a means of providing support to teachers as they address the complex academic and social needs of their students (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010)

Despite the move toward more collaboration and co-teaching in schools, general and special education teachers often have reported being unprepared to meet the many unique needs present in heterogeneous classrooms which include students with disabilities (Cahill & Mitra, 2008; DeSimone & Parmar, 2006). Although ample literature exists on school collaboration (e.g., Van Laarhoven, Munk, Lynch, Bosma & Rouse, 2007; Hines, 2008) and somewhat less on co-teaching (e.g., Kloo & Zigmond, 2008; Little & Dieker, 2009; Friend, 2008; Lock & Stivers, 2008), few data exist on the extent to which teachers are being prepared to collaborate and co-teach during their teacher education programs. The purpose of this study was to examine the perceptions of general and special education teachers regarding the degree of effectiveness of their teacher education programs in preparing them for collaboration and co-teaching. In the following sections, the historical and conceptual bases of collaboration and co-teaching, as well as the research base for it, are explored. Further, implications for these three topics regarding teacher education programs are also discussed.

Evolution of Inclusive Practices

Implementation of inclusive practices is growing in importance around the country (Friend & Shamberger, 2008; Idol, 2006; Scruggs, Mastropieri, & McDuffie, 2007). However, the concept of including students with disabilities to be educated alongside their peers without disabilities has been in existence for decades, albeit with much resistance early on (Connor & Ferri, 2006; Zigmond, 2001; Reeve & Hallahan, 1994). Until the middle of the 20th century, classrooms generally were homogeneous – consisting mostly of students who shared similar racial, ethnic, and cultural backgrounds with each other and their teachers and administrators (Kode, 2002). In contrast, those students who lived in poverty; came from different racial, ethnic or cultural backgrounds; or had physical, intellectual or behavioral differences had been largely excluded from public education (Reynolds & Birch, in Doyle & Reitzug, 1993). According to Connor and Ferri (2006), before P.L. 94-142 was passed in 1975, roughly four million children who were in need of special education services did not receive adequate school support and nearly a million others were excluded from school altogether. The result of such exclusionary thinking was the placement of these students in separate classrooms or schools (Foster, Bishop, & Jubala, 1992; Hahn 1989, Winzer, 2003) or the denial of access altogether. Educating students with disabilities and other special needs apart from their peers without disabilities ultimately resulted in two separate education systems – general education and special education (Skiba, Simmons, Ritter, Gibb, Rausch, Cuadrado, Chung, 2008).

Early Influences

The disability rights movement, and to a larger degree, the civil rights movement, influenced parents and advocates of children with disabilities in their struggle to end the practice of excluding their children from public education (Shapiro, 1993; Markel & Greenbaum, 1979). Parents and other proponents wanted children with special needs to receive their education alongside their typically developing peers (Friend & Shamberger, 2008). Dissatisfied families and advocates of students with disabilities began demanding more equitable education services from schools (Markel & Greenbaum, 1979). As a result of increasing demand for schools to include children with disabilities, along with issues of overcrowding and poor instruction at some facilities, the long-standing pattern of educational separatism and inequity began to change in the 1950s (Kode, 2002). An example of that change occurred in 1954, when the *Brown v. Board of Education of Topeka, Kansas* Supreme Court decision established that separate educational facilities were inherently unequal for African American students under the Fourteenth Amendment to the Constitution (Brown v. Board of Educ., 347 U.S. 483 (1954)). One year after that decision, in 1955, the first study was conducted that raised questions regarding whether separate education for students with disabilities was producing desired student achievement outcomes (Blatt, 1958). That research sparked a series of studies during the following ten year period that increasingly questioned the effectiveness of segregating students with disabilities as a way to provide education (e.g., Goldstein, Moss, & Jordan, 1965). Lloyd Dunn (1968), an important author of that day, contributed to reform efforts by writing an article that marked a defining moment in the debate about the best

educational setting for students with disabilities.

Foundational Law and Court Cases

Throughout the 1960s, advocacy on the part of families, progressive educators, and researchers continued to be fueled by the civil rights movement. Grassroots activism typified the changing society during that time, which paved the way for sweeping change regarding the way students with disabilities were treated by the educational system. For example, Yell, Katsiyannis, and Korn (2007) report that prior to 1975, nearly two million students with disabilities were excluded from participating in America's public schools. They further explained that more than three million children with disabilities were admitted to schools but did not receive an education that met their academic needs. However, the Federal government, under the presidency of Gerald Ford, intervened with the passage of P.L. 94-142 in 1975. Formally known as the *Education of the Handicapped Act*, it was later renamed the *Education of Handicapped Children Act*. The law mandated that in exchange for federal funds, states provide a free and appropriate education for all eligible students with disabilities (Yell, et al., 2007). Now commonly known as IDEA, P.L. 92-142 and its subsequent reauthorizations solidified the foundation of inclusive education. Its far-reaching implications helped establish the blueprint for how special education should operate in schools, especially regarding the rights of students with disabilities to be educated in the least restrictive environment along-side their typically developing peers (Winzer, 1993).

Throughout the 1970s and 1980s, despite the new special education law, schools often fell short of parents' expectations for the inclusion of their children with disabilities

in general education classrooms (Winzer, 1993). Even a decade after P.L. 94-142 was signed into law, schools were only just beginning to allow students with significant disabilities to be educated in general education settings; they called the practice inclusion. Kluth, Villa and Thousand (2001/2002) point out that change from separate settings for students with disabilities (especially with severe and profound disabilities) occurred at a slow pace. Specifically, the number of students served in general education classrooms and resource rooms from 1977-1990 only increased by 1.2 percent and the number of students with disabilities served in separate settings (i.e. classes, schools or other facilities) decreased by less than 2 percent (Karagiannis, Stainback, & Stainback, 1996). With IDEA in place and lingering dissatisfaction, parents turned to due process hearings as set forth in the provisions of the federal law. When that lengthy process produced unsatisfactory results, families sought help from the Office of Civil Rights which often led to quicker court involvement with more satisfactory results (Friend & Shamberger, 2008).

The courts responded favorably to parents' wishes with several major decisions supporting the inclusion of students with disabilities in the general education setting (Friend & Shamberger, 2008). For example, in the 1983 case of *Roncker v. Walter*, it was argued that assigning students to specific programs and schools based on disability was not in the student's best interest. The ruling favored inclusive settings over segregated placements and established a *principle of portability*. This means that a district that claims superior special education services can be accessed by a student at a particular separate site must first attempt to provide those same services in a non-

segregated, general education setting. In the Roncker case, the court found that districts must make placement decisions based on individual student needs. To do otherwise violated federal law (Roncker v. Walter, 700 F.2d 1058 (6th Cir.) at 1063, cert. denied, 464 U.S. 864 (1983)). Another favorable case was that of *Oberti v. Board of Education of the Borough of Clementon School District* (1993). A U.S. circuit court ruled that the family of Raphael Oberti, a student with Down's syndrome, did not have to prove that he could function in the general education setting. Instead, the burden of proof was on the district to prove why he should not be included in the general education classroom with the appropriate aids and services including training for faculty and staff (*Oberti v. Board of Education of the Borough of Clementon School District* (789 F.Supp. 1322 D.N.J. (1992)). Another case with similar implications involved a student with an intellectual disability. In Sacramento City Unified School District v. Holland (14 F.3d 1398 (1994)), the 9th Circuit Court made it clear that the presumed setting and thus the starting point, for all placement decisions regarding students with disabilities is the general education setting. The burden of proof as to why a student cannot participate in the general education setting is the responsibility of the school district.

Prior to the 1997 reauthorization of IDEA, the interpretation of the law indicated that the location preferred for educating students with disabilities should be the general classroom setting. However, the reauthorization brought changes in the wording which made more explicit that the first consideration for educating a student with disabilities be in the general curriculum setting. In order for a student to receive his or her education outside of the general education setting, documentation was required as to why that

placement would be better than the general education setting (Friend & Shamberger, 2008).

School reform initiatives, bolstered by federal mandates, have prompted greater emphasis on developing highly collaborative cultures within 21st-century schools, especially between general and special education teachers (Smith, 2005). Additionally, schools have been influenced by other disciplines like industry, medicine and mental health, which have modeled the idea that more can be accomplished by collegial partnerships and teams that work together toward common goals than individuals can alone (Hansen, 2007; Hymowitz, 2006; Houser, 2005). Further, the increased diversity in today's schools makes it quite difficult for only one teacher to address the unique and complex needs of all students in a heterogeneous classroom. Nevertheless, the supply of teachers with effective collaboration skills remains critically lacking (Kaufman & Brooks, 1996; Paul, Churton, Morse, Duchnowski, Epanchin, Osnes, and Smith, 1997; Grant and Gillette, 2006). Researchers also have reported that many educators lack self awareness, dispositions, and professional skills necessary for collaborating with each other, diverse families, and other stakeholders in serving students with special needs (Van Laarhoven, Munk, Lynch, Bosma, & Rouse, 2007; Rea & Connell, 2005). Despite these findings, the current era of accountability implies that general and special education professionals collaborate to meet the needs of increasingly diverse student populations (IDEA 2004; No Child Left Behind Act, 2001).

Research on collaboration and related topics such as inclusive practices and co-teaching can provide some direction in addressing the dilemma of teachers being

unprepared to work collaboratively and other related issues. In the first part of this literature review, a discussion of these findings is presented. Because the co-teaching model has emerged as a key model for addressing the complexities surrounding how best to educate increasingly diverse student populations in heterogeneous general curriculum classrooms, the second part of the literature review is an analysis of how co-teaching facilitates collaboration within educational settings. A third part addresses the role of teacher education programs in the preparation of skilled collaborators, including co-teachers. The fourth and final section presents recommendations from recent literature on current practices that emphasize better preparation of preservice teachers, sustained classroom support of early career teachers, and professional development efforts aimed at improving learning outcomes for students who receive services such as special education, English as a second language (ESL) and students who are identified as Gifted and Talented (G/T).

Controversy over Inclusive Practices

Concerns over providing students with disabilities a free and appropriate education with meaningful educational benefit have been heatedly discussed for decades (e.g., Eisenman & Ferretti, 2010). Debated issues include those related to (a) educating students with disabilities in the general education classroom without negatively affecting the education of typical peers, (b) roles and responsibilities of general and special educators and other related services professionals in the classroom setting, and (c) equal and/or equitable access to the general curriculum with full and welcome membership in

the classroom for students with disabilities (McLaughlin, 2010; Ferretti & Eisenman, 2010).

These controversies stem basically from the misalignment of the core tenets of IDEA and ESEA. Specifically, the requirement that nearly all students, regardless of disability, be held to the same standards of proficiency on high-stakes testing runs counter to the provisions that ensure students with disabilities receive individualized instruction to meet their unique educational and social needs (McLaughlin, 2010). Beyond the classroom, researchers are continuing to examine input from families and communities to better understand social and cultural factors associated with educating students with disabilities. Further, debate has intensified over the effectiveness of teacher preparation programs to produce teachers who are competent to promote academic achievement of students in today's schools (Eisenman & Ferretti, 2010).

The Need for Collaboration in Educational Settings

Confusion abounds over what exactly constitutes collaboration in today's schools (Paulsen, 2008; Sawyer & Rimm-Kaufman, 2007). Some professionals refer to any work on a specific project or goal with others as collaboration, while others mistakenly consider it collaboration when a few vocally strong group members persuade less vocal colleagues to go along with their agenda (Friend & Cook, 2010). However, this study employs the Friend and Cook (2010) definition of collaboration as a style of interpersonal relationship that exists between at least two parties having equal value and sharing in the decision-making process necessary to reach a common goal. These authors emphasize that with this style of interaction, school personnel place high priority on such factors as

effective communication, active listening, problem solving and teaming in order to strengthen and maintain dynamic professional relationships.

Persistent Questions

Although some vagueness persists regarding the definition of collaboration and related terms, some experts anticipated the need for increased professional partnerships within school settings decades ago. For example, a review of past research on collaboration reveals that nearly 20 years ago, Bauwens and Hourcade (1991) questioned the sustainability of the instructional practices that were current at that time. These researchers projected that by the beginning of the 21st century, increased diversity in schools would require updated instructional service delivery models that effectively meet the educational needs of children with disabilities. Now, nearly a decade into the new century, questions still persist relating to the effectiveness of traditional models of delivering instruction and special services (Dieker, 2003; Murawski, 2006; Hang & Rabren, 2009) to students with disabilities and other unique needs – and so do efforts to find viable, sustainable solutions for educating all students (Spencer, Cook, & Downing, 2005; Seo, Brownell, Bishop, & Dingle, 2008; Faulk-Ross, Watman, Kokesh, Iverson, Williams, & Wallace, 2009).

Co-Teaching Controversy

According to Frattura & Capper (2007), many experts agree that the best place for students with disabilities and other special needs to achieve optimal learning is the general education classroom. Yet, the prospect of educating these students in the general education classroom alongside their typically developing peers is often overwhelming,

especially for general education teachers. This is because general education teachers and their special education colleagues often lack the skills needed for collaboration that benefit students and their families. Some researchers suggest that co-teaching can help address the challenges faced by general education and special education teachers who find themselves overwhelmed in isolation or struggling in a new teaching partnership (Little & Theiker, 2009; Nevin, Cramer, Voigt & Salazar, 2008). Despite the optimism of studies like those mentioned above, others (e.g., Bauwens & Hourcade, 1991; Zigmond & Magiera, 2001) clearly indicate a long-standing controversy in the field regarding this service delivery model. For example, Scruggs, Mastropieri, & McDuffie (2007) do not fully embrace co-teaching as being a truly evidence-based practice. According to these researchers, many difficult issues arise regarding precise investigations of co-teaching. Some of these issues center around the inability to assemble appropriate control groups of students, the lack of reliable data due to factors such as student absenteeism or attrition due to moving, and the lack of valid measures of student achievement. Additionally, some researchers emphasize the importance of conducting longitudinal studies on the effectiveness of co-teaching and warn practitioners to use it cautiously until efficacy studies obtain results that are significant and unambiguous (Zigmond & Magiera, 2001, Simmons & Magiera, 2007; Mastropieri et al., 2005).

Still other researchers suggest that school environments which value a culture of collaboration and make co-teaching a priority support student achievement (Lee & Loeb, 2000; Rea & Connell, 2005; McDuffie, 2009), which is vital in this age of heightened

school accountability. Additional studies report that students with disabilities and other diverse learners exhibited increased levels of class participation or engagement in co-taught classrooms in comparison to peers in non-co-taught classrooms (Murray, 2004; Wilson & Michaels, 2005; Piechura-Couture, Tichenor, Touchton, Macisaac, & Heins, 2006). Researchers attributed these findings to decreased student/teacher ratios made possible by effective co-teaching (Friend, 2007, 2010). Further, behavioral and social outcomes for students with disabilities have been found to be positively influenced in co-taught classrooms (Wilson & Michaels, 2005).

The necessity of collaboration as a required component of the education of students with disabilities has been intensifying for over three decades. Beginning with the passage of P.L. 94-142 in 1975 and followed by the *Elementary and Secondary Education Act of 2001(ESEA)* and the Individuals with Disabilities Education Improvement Act of 2004 (IDEA), the expectation has been that students with disabilities have access to the general curriculum in the least restrictive environment (LRE) most often assumed to be the general education classroom. These laws presume professional collaboration among highly qualified teachers who serve all students. They also emphasize that the decision-making process on behalf of students with disabilities involves the perspectives of a multi-faceted team – including input from general education teachers and parents or guardians.

Since students with disabilities and other diverse learning needs are included more and more in the general curriculum classroom, general and special educators are expected to work together more collaboratively. Experts emphasize collaboration in

schools as a high priority in order that students with disabilities and other diverse learners may receive more comprehensive instruction as a result of general education teachers and special educators sharing goals, planning, and instructional responsibilities for all students (Brownell, Adams, Sindelar, Waldron & Vanhover, 2006). When general and special education teachers work together, pooling their separate skills and expertise, it also enables them to provide students with a greater array of accommodations, thus enhancing student access to the general curriculum (Winzer & Mazurek, 2000).

A study by Cappizzi and Barton-Arwood (2009) points out the need for general and special educators to use more curriculum based measurement (CBM) to inform instructional decision-making and monitor student progress. They argue that although CBM has been around for thirty years, teachers do not use this strategy often enough in their efforts to improve classroom performance of their students. Additionally, this study promotes the use of a graphic organizer to facilitate collaboration between general and special educators in delivering effective instruction to all students, particularly those with special learning needs. Similarly, Steckel (2009) suggests that job-embedded professional development that focuses on coaching improves student learning, especially when time and space is a priority for supporting teacher collaboration.

Moreover, many of today's general curriculum classrooms are more heterogeneous than in the past, having greater percentages of students who are English language learners, live in poverty, represent various cultural and ethnic backgrounds, or have one or more disabilities (Perkins, Odell, McKinney, & Miller, 2001; Carroll, 2006). These and other school, home, and community challenges make it extremely critical for

general and special educators to possess skills to facilitate and maintain collaborative communication and activities (Paul et al., 1997).

Collaboration Skills

As a result of the unique and complex student needs evident in heterogeneous schools, many site and district administrators promote a more collaborative climate as they implement inclusive practices (Varrati, Lavine, & Turner, 2009; Falk-Ross, Watman, Kokesh, Iverson, Williams, &Wallace, 2009). However, collaboration requires skills that teachers generally lack before entering the classroom (Cahill & Mitra, 2008). The degree of effective collaboration needed to provide competent instruction to diverse learners in today's classrooms, serve their families and communities, and share responsibilities with colleagues and other service providers should be taught to preservice teachers in their teacher education programs (Grant & Gillette, 2006). For example, Friend & Cook (2010) posit that a critical area of collaboration skill development includes communication skills for effective interactions with families and colleagues from diverse cultures. These authors also stress the importance of having knowledge and skill in navigating the problem solving process.

Professional Development

In addition to ensuring that new teachers have adequate collaboration skills, veteran teachers and administrators need similar support. They need to receive on-going professional development to fully participate in and wholeheartedly support collaborative endeavors in the school setting (Quigney, 1998; Jenkins, Pateman, & Black, 2002; Westling, Herzog, Cooper-Duffy, Prohn & Ray, 2006; Cook & Friend, in press).

Enhancing the collaboration skills of school personnel is in line with the professional literature which addresses such topics as collaborative school culture, various education initiatives for improving outcomes for students with disabilities and processes for facilitating effective school reform (Waldron & McLeskey, 2010). Having first established the need for collaboration skills training for pre-service teachers, the next step is identification of common barriers that often hinder the development of effective collaborative relationships.

Barriers to Collaboration

Identifying and addressing barriers to collaboration should occur prior to and throughout the collaborative process and is essential to establishing and sustaining successful collaborative practices. Additionally, pinpointing problems regarding collaboration in school settings could serve as a basis for school reform initiatives (Cramer & Stivers, 2007). Further, examining barriers to collaboration provides a basis for designing appropriate professional development for facilitating the development of a more responsive teaching force (Cramer & Stivers, 2007; Idol, 2006).

Teacher Education

Perhaps the biggest and most pervasive barrier to collaborative practice is current teacher education program characteristics. In most settings, university programs train teacher candidates separately and then expect them to work together collaboratively in the classroom. In general, teacher education programs neither teach their candidates the needed skills for establishing and maintaining collaborative relationships nor model them within their universities (Titone, 2005; Griffin, Jones, & Kilgore, 2006; Hudson &

Glomb, 1997; Burstein, Sears, Wilcoxen, Cabello, & Spagna, 2004). The aforementioned barriers must be overcome if general and special education teachers are to maximize their instructional potential through collaboration.

Time

Lack of time, especially for joint planning between general and special educators, has been identified as another one of the most common barriers to school collaboration (Spencer, 2005; Friend, 2008). General education and special education teachers' daily schedules are so full that they have very little time to work together (Hines, 2008). More time in the school day would allow general and special educators (and other school professionals) increased opportunities to talk with each other formally (grade level meetings, staff meetings) or informally (lunch, planning periods) to share ideas, goals, and responsibilities (Griffin et al., 2006). Although some teachers report being able to plan collaboratively during small portions of time (e.g., while passing each other in the hall or waiting at the copier), others resort to meeting before or after school hours (Hackman & Berry, 2000). The ideal would be to have time for collaboration incorporated into the school day (J. Conoley & Conoley, 2010)

Scheduling and Administrative Support

Lack of administrative support in the form of creatively finding time usually translates to lack of time during the school day for collaborative lesson planning and discussion of student progress and areas of need (Murray, 2004). When practitioners lack the benefit of adequate support to help them find time in the school day to collaborate, then it is likely that at least some of the educational needs of the students they serve go

unmet, thus jeopardizing their access to the general curriculum (Zemelman et al., 1998; Burstein, Sears, Wilcoxen, Cabello, and Spagna, 2004). Not only does a lack of collaboration skills deprive general and special educators of much needed time to communicate with each other about student needs and progress, parent concerns, and the sharing of ideas to improve instruction, it may also prevent them from being mutually supportive of each other (Friend, 2002; Titone, 2005).

Attitudinal Issues

Negative attitudes of uncooperative veteran teachers also hinder collaboration between general and special education teachers (Griffin, Jones & Kilgore, 2006; Hansen, 2007; Vangen & Huxham, 2003). These barriers may be attributed to a lack of communication, insufficient staff development, stereotypical beliefs, and preconceived notions which are detrimental to establishing collegiality among school personnel and between school, families and the community (Jeltova & Fish, 2007; Friend & Cook, 2010). Additionally, parents, guardians and community members who have had negative school experiences and school personnel who are unwilling to operate outside of the regular school day hours are unlikely candidates for successful collaboration (Ditrano & Silverstein, 2006).

Additional roadblocks such as limited classroom space and lack of instructional resources also hinder teacher collaboration. Moreover, insufficient staff development opportunities specifically planned to meet teachers identified needs should also be addressed in order to facilitate ongoing collaboration (Friend & Cook, 2010).

Conditions for Collaboration

Just as there are barriers to collaboration, there are also factors that influence positive conditions for collaboration (Hackman & Berry, 2000). In order for educators who possess adequate skills and knowledge to achieve positive outcomes for their collaborative efforts, certain key elements must first be addressed. Friend and Cook (2010) identified several critical elements to effective collaboration which include the following:

1. Voluntariness – the individuals involved in the endeavor must have the attitude that they will give themselves to working with others, bringing their resources and input to the table and valuing the contributions of others.
2. Parity – each of the collaborating individuals has equal power and influence.
3. Mutual Goals – the idea that collaborative partners all work toward a common goal.
4. Shared Resources – materials, funds, ideas, time and talents that are brought to the group and pooled for accomplishing the shared goal(s).
5. Shared Accountability – outcomes of the collaboration, good and bad, are the responsibility of all involved.

Friend and Cook (2010) also emphasize that some additional factors essential to the collaborative process are simultaneously prerequisite and emergent. These include the value placed on collaboration by partners. Collaborators believe that their collective

work is more likely to result in better outcomes than if they work individually. Additionally, explain Friend & Cook (2010), trust among school professionals who are committed to collaboration grows along a continuum. Those embarking on collaborative endeavors have an initial awareness of trust as being foundational to the establishment of collaborative relationships. However, over time, they argue, trust progresses to being a lifeline for the sustainability of the collaboration, which proves to be beneficial for both students and educators alike.

Co-Teaching as a Collaborative Practice

Schools are in search of solutions to the challenges faced by educators in 21st-century classrooms. Accordingly, districts are undertaking reform efforts that promote inclusive practices within a collaborative school climate. Although it is receiving increased attention, collaboration never exists alone. Further, it must be emphasized that collaboration is a style used to carry out activities with its main purpose being to improve outcomes for students with disabilities and other learning needs. Co-teaching, due to its highly collaborative nature, is increasingly initiated to facilitate inclusive practices and thus raise student achievement. The following section discusses the history, research and current trends of co-teaching.

Origin of Co-Teaching

The instructional delivery model known today as co-teaching can be traced to the late 1950s. During that era, educators and researchers from the United States and abroad questioned the effectiveness of traditional school organization and teaching practices (Kode, 2002; Blatt, 1958). In addition, the nation was experiencing a severe teacher

shortage (Michael, 1957). To address these issues, alternative models of instruction were explored, including team teaching wherein an expert teacher provided instruction for a large group of students which was later divided and led by other teachers for discussion, extension and assessment (Friend, Hurley-Chamberlain, Shamberger, & Cook, 2010). This practice was viewed as a more efficient use of teacher skills and expert knowledge as they worked closely to coordinate their efforts. However, the education system continued to be investigated by researchers throughout the subsequent decade regarding the efficacy of educating students with disabilities in settings apart from their non-disabled peers (Goldstein, Moss, & Jordan, 1965).

As mentioned earlier, the civil rights movement influenced increased advocacy that led to the signing of the first major legislation in support of the rights of students with disabilities in the mid-1970s, now known as IDEA. Consequently, the term co-teaching emerged in the early 1980s as changes in instructional practices began to occur as students with disabilities began to receive services in the general classroom (Friend, et al, 2010). During the remainder of the 1980s, the co-teaching concept drew the attention of researchers. A series of studies examined cooperative support groups which consisted of an administrator and several teachers who engaged in planning, problem-solving and peer-observation with feedback (Johnson & Johnson, 1986). Subsequent legislation, particularly the *Elementary and Secondary Education Act of 2001* and IDEA focused on providing highly qualified teachers in every classroom and ensuring the least restrictive environment for educating students with disabilities. Thus, the concept of co-teaching continues to receive attention as an instructional delivery option (Friend, et al, 2010).

Teams

The highly collaborative team approach is currently in vogue, especially within the fields of business, health, and education. To facilitate the collaborative process and achieve group goals, it is critical that members understand the team's identity and purpose (Drucker, 2008). In order to do that, a common definition of teams is needed to communicate across disciplines. However, due to the number of disciplines that use teams, defining the term across settings has become problematic (Friend & Cook, 2007, 2010). With definitions for *teams* coming from several different fields, the need for one term which applies to school settings is apparent. Thus, to ameliorate the problem, Friend & Cook (2007) have compiled a definition from a broad range of aspects from various fields which they use as a framework to discuss teams in their work regarding professional interactions in school settings. It is as follows:

> An educational team is a set of interdependent individuals with unique skills and perspectives who interact directly to achieve their mutual goal of providing students with effective educational programs and services (p. 59-60).

School personnel (and other related professionals) who adopt this definition recognize that providing a free, appropriate public education to students with disabilities is best accomplished by a group of professionals with specialized skills – none of which would be as effective working individually (Friend & Cook, 2010).

Since effective teams rely on collaboration, they involve qualities such as shared responsibility for outcomes, mutual respect, common goals, equal power and shared decision-making. Similarly, emergent team characteristics include building, and

maintaining trust among members, which leads to openness in risk-taking, that results in a greater sense of community – which in turn strengthens the effectiveness of school collaboration (Snell & Janney, 2005; Friend & Cook, 2010).

Co-teaching

Professionals in the field acknowledge that co-teaching is widely known as a service delivery model and is recognized by educational leaders as a key approach for school professionals who have a strong commitment to cultivate a more collaborative school climate (Bouck, 2007; Friend and Cook, 2010; Hansen, 2007; Idol, 2006). Friend (2008) defines the co-teaching model as being a partnership between a general and special educator, or some other specialist which exists to jointly provide instruction to a single heterogeneous group of students, including those with disabilities, in the general education classroom setting. This partnership is further characterized by the flexible and deliberate nature with which instruction is delivered in order to meet the needs of diverse students with special learning needs.

Co-Teaching Research

Nearly two decades have passed since researchers expressed concerns over the ability of the then current educational system to adequately address the future needs of an increasingly diverse student population (Bauwens & Hourcade, 1991). Now, well into the 21st century, uncertainty lingers regarding the efficiency and effectiveness of traditional education practices for serving students with disabilities and other diverse needs. These issues have formed the impetus for ongoing implementation and investigation of co-teaching as an alternative method of delivering special education

services within the general classroom (Friend et al., 2010).

Questions persist regarding the implementation of co-teaching as a viable method of collaboratively educating students who receive special education services, in spite of the ongoing emphasis on accountability and the use of evidence based practice (Scruggs, Mastropieri, & McDuffie, 2007; Murawski & Swanson, 2001; Weiss & Brigham, 2000). Although collaborative school environments have been found to support student achievement (Lee & Loeb, 2000; McDuffie, Mastropieri, & Scruggs, 2009), which is critical to school accountability (Elementary and Secondary Education Act, 2001; Lee & Loeb, 2000), practitioners should consider the available evidence in the professional literature.

Types of Co-Teaching Research

Co-teaching is acknowledged by many experts as a means for promoting a more collaborative school culture (Bouck, 2007; Friend and Cook, 2007; Hansen, 2007). As such, researchers have studied co-teaching and its various aspects in an effort to determine its efficacy as a sound instructional practice for servicing the needs of and improving the outcomes of students with disabilities (Kloo & Zigmond, 2008). Teacher perception studies constitute the majority of research on co-teaching to date (Welch, 1999; Rice & Zigmond, 2000; Austin 2001; Scruggs, Mastropieri, & McDuffie, 2007).

Student and parent voices have also been captured in perception research regarding co-teaching efficacy (Gerber & Popp, 1999; Pugach & Wesson, 1995; Walther-Thomas, 1997; Wilson & Michaels, 2006). For example, Gerber & Popp (1999) interviewed 123 students and parents from elementary, middle, and high school about

their thoughts on co-teaching. Positive perceptions were expressed by students and parents alike. Better grades and improved study skills were discussed by students with disabilities. Their parents indicated they understood the co-teaching program and thought it had a favorable impact on their students' progress and confidence. Wilson & Michaels (2006) reported similar findings. Middle and high school students in English classes, especially those with disabilities, favored co-teaching over traditional settings. Students also noted that their class participation and academic skills had improved. Typical students shared positive comments including increased critical thinking and literacy skills. Both groups of students reported a common dislike - they could not do homework from other classes in their co-taught classes because it was easier to be noticed with two teachers present. Additionally, perceptions of other stakeholders, such as school administrators, have added to the knowledge base on the effectiveness of co-teaching (Walther-Thomas, 1997).

Stakeholder perceptions are not the only criteria for determining the effectiveness of co-teaching as a service delivery model. Although much of the co-teaching research is qualitative, a few quantitative studies support the co-teaching model (Friend et al., 2010). Adding to the knowledge base regarding co-teaching as an evidence-based practice is critical in the current push toward greater accountability for student progress (Lee & Loeb, 2002; Elementary and Secondary Education Act, 2001). For example, studies by Amerman & Fleres (2003) and Morocco & Aguilar (2002) suggest that when co-teachers are willing partners, prepared in advance, over a long period of time, co-teaching is more effective. However, currently, evidence supporting co-teaching is considered to be

insufficient (Murawski & Swanson, 2001, Scruggs, Mastropieri, & McDuffie, 2007; Weiss, 2004). Thus, researchers like Zigmond & Magiera (2001) continue to hold co-teaching in suspicion and advocate for its cautionary use.

Conflicting views on the usefulness of co-teaching as a service delivery model remain. Yet, research is expanding to include different approaches to data collection in order to provide a more substantial knowledge base from which to answer the call for evidence-based practice (e.g., Mastropieri, Scruggs, Graetz, Norland, Gardizi, & McDuffie, 2005).

Perception of the Co-teaching Process

School settings where educators, parents, students, and other school related professionals engage collaboratively are the environments in which co-teaching can be effectively implemented and sustained. Examining stakeholder perceptions, therefore, is important to informing decision-making on when it is appropriate to use this instructional delivery model or seek other alternatives for serving students with disabilities.

Research demonstrates that professionals who value the collaborative engagement necessary for co-teaching develop strong partnerships based on the shared commitment to provide equitable instruction that increases outcomes for all students (Spencer, 2005; Weiner & Murawski, 2005). Further, co-teaching partnerships develop in stages over a period of time (Stivers, 2008). According to Gately and Gately (2005) and Welch, Brownell & Sheridan (1999), three stages of development characterize co-teaching partnerships: beginning, compromising, and collaboration. These stages apply to the physical arrangement of the classroom; knowledge of the curriculum, goals and modifications; instructional delivery preferences; classroom management; and

assessment (Gately & Gately, 2001). In each area, the beginning stage is generally the period when partnership seems difficult due to the newness of the co-teaching arrangement, particularly when co-teachers are new to each other and have had little advanced professional development. The compromise develops as co-teaching partners gain knowledge about various aspects of providing instruction collaboratively so as to share input in decision-making. The collaborative stage is experienced when co-teachers can share feedback and move beyond their own preference for the benefit of attaining common student goals agreed upon from the outset.

Other researchers have studied perceptions of school professionals regarding relationships, roles and responsibilities, and effective communication skills (Keefe, Moore, & Duff, 2004; Mastropieri, Scruggs, Graetz, Norland, Gardizi & McDuffie, 2005; Murawski, 2005). For example, Weiss and Brigham (2000) reviewed a series of 23 quantitative and qualitative studies from 1987-1999 on the topic of co-teaching. Of their six findings, the one most relevant to co-teaching as a collaborative endeavor emphasized that the definition of co-teaching is often unclear, and professionals often lack critical collaboration skills for effective implementation of practice. In a more recent study, Simmons and Magiera (2007) found similar confusion over terms and indicators of co-teaching. If research is to be considered scientifically based, then a clear and concise definition and description of co-teaching practice is imperative (Mastropieri, et al 2005).

Conclusion

Accountability standards have been set at increasingly new heights over the last three decades due to laws that directly affect the way students with disabilities receive

their education (Hardman & Dawson, 2008). The *Elementary and Secondary Education Act of 2001* (ESEA) and the *Individuals with Disabilities Education Act of 2004* (IDEA) require greater collaboration among school professionals and between school and home (Cook & Friend, 2010). Promoting collaborative school cultures is intended to improve outcomes for students with disabilities and other unique and diverse learning needs, and to foster increased levels of involvement for the parents and families of these students (Idol, 2006; Waldron & McLeskey, 2010; Silverman, Hazelwood, & Cronin, 2009). However, teachers, who are often overwhelmed by the challenges presented in heterogeneous classrooms characterized by diverse students, some of whom have disabilities, may also benefit by sharing the load of instructional delivery and other responsibilities with another adult (Friend, 2008). The school experience is more valuable for all involved when professionals share their individual expertise, recognizing that one person does not have all of the competencies needed to meet the complex needs of all the students (Capizzi, 2009; Brownell, Adams, Sindelar, Waldron and Vanhover, 2006).

Although school reformers and policy makers admonish schools to establish more collaborative school cultures, professionals often have an unclear definition of collaboration and lack knowledge of its critical elements (Cook & Friend, 2010; Friend, 2010). Additionally, general and special educators alike often report not having the skills necessary to effectively deliver instruction to a diverse student population, particularly when students with disabilities are educated in the general classroom alongside their typically developing peers (Grant & Gillette, 2006).

One solution to the aforementioned challenges in general classroom settings which has received increased consideration, is co-teaching. This highly collaborative model of instructional delivery has become a popular choice for schools that have implemented inclusive practices initiatives (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010). Districts involved in longitudinal studies on change processes related to school improvement have cited deliberate collaboration as one of the most important practices of top performing schools (Silverman et al., 2009; Kams, 2006). Similarly, Waldron and McLeskey (2010) discuss the benefits of strengthening schools' capacity for building collaborative cultures, thus fostering a positive environment for school reform efforts.

Research on school reform that improves instructional practices and increases student achievement points to collaboration as a critical element in successful school reform initiatives (Waldron & McLeskey, 2010). Researchers have hailed collaboration as one of the cornerstones of effective school improvement programs aimed at raising achievement outcomes for students with disabilities through inclusive education practices (Fullan, 2006; Dufour, Dufour, Eaker, & Many, 2006; Waldron & McLeskey, 2010). Additionally, researchers have studied what instructional practices teachers recommend for preservice programs and the role of school principals in teacher education (Austin, 2001; Varrati, Lavine, & Turner, 2009). However, very little is known about teachers' perceptions of their preparation for co-teaching.

The researcher believes that research on how collaboration and co-teaching relate to school effectiveness needs to make the preparation of general education and special

education teachers a priority. That belief was the impetus for the current study. This study invited participants to share their perceptions of their teacher education program in relation to effectively preparing them for collaborative school practices, namely co-teaching. Participants were also asked to describe their early co-teaching experiences. The study aimed to add to the professional knowledge base regarding preparation of competent collaborators.

CHAPTER III

METHOD

Traditional teacher education programs are solidly embedded in the foundations of American education. However, for several decades the effectiveness of teacher education programs in regard to graduating competent educators who are ready to meet the challenges of 21st century schooling has been scrutinized and hotly debated (Brownell, Ross, Colon & McCallum, 2005; Levine, 2006). Studies show that many teachers report not having adequate skills in two critical areas: (a) the delivery of instruction to students with disabilities and other diverse learners (D'Aniello, 2008) and (b) collaboration skills needed for interacting with various school-related personnel, diverse families, and community members (Paulsen, 2008). Some of the professional literature emphasizes co-teaching as a viable solution to help educators meet the needs of students in heterogeneous classrooms in a collaborative context (Friend, 2008; Van Laarhoven et al., 2007; McDuffie, Mastropieri, & Scruggs, 2009; Murawski & Hughes, 2009). Although many have described and defined co-teaching, the basic characteristics of the concept include having a general education teacher and a special education teacher (or other specialist) jointly plan, teach, assess, manage, communicate about and share accountability for a heterogeneous group of students in a single classroom (Friend, 2010; Little & Dieker, 2009; Kohler-Evans, 2006).

Few studies have examined the extent to which teacher education programs

prepare teacher candidates to collaborate, particularly in relation to co-teaching. The purpose of this research was twofold: (a) to determine teachers' perceptions of their teacher education program in relation to their perceived level of preparedness to co-teach and (b) to examine the co-teaching experiences of teachers early in their professional careers. The study was intended to contribute to the professional literature in hopes of improving how we prepare teachers to meet the needs of 21st- century P-12 classrooms. In particular, it was designed to address the following question and accompanying subquestions:

How well are teachers prepared to co-teach?

1. What are the perceptions of general education teachers regarding their teacher education program's effectiveness in preparing them to co-teach?
2. What are the perceptions of special education teachers regarding their teacher education program's effectiveness in preparing them to co-teach?
3. What are the experiences of general education teachers regarding co-teaching early in their careers?
4. What are the experiences of special education teachers regarding co-teaching early in their careers?
5. What knowledge and skills do early career teachers believe would have facilitated their co-teaching practice?

Design of the Study

Initially, the researcher considered conducting an ethnographic case study because of the potential to develop an in-depth understanding of the teacher perceptions regarding their teacher education program and early co-teaching experiences. However, doing so might have limited data collection to a smaller than desired number of participants and limited time to gather, analyze and interpret multiple forms of data (Creswell, 2005). In contrast, conducting a totally quantitative study would have produced more numerical data with which to run a number of statistical tests but may have eliminated the collection of more insightful data (Creswell, 2005).

Conducting a survey is a straightforward way to efficiently collect a large amount of data in a relatively short period of time (Dillman, 2007; Creswell, 2005; Mertens & McLaughlin, 2004). According to Maxwell (2004), one important factor in considering a research design is the past experience of the researcher in conducting research and what method was most familiar. The researcher had gained prior experience in conducting several surveys using a mixed methods approach. The opportunities to assist with past surveys using the mixed methods approach made it a desirable choice for this study. Therefore, the researcher chose to use a mixed methods survey design in order to gain breadth and depth of data collection and analysis that would not have been possible with a study that was completely quantitative or solely qualitative. Mixed methodology, according to Creswell and Plano-Clark (2007), promotes data collection and analysis through quantitative and qualitative means within the same research project. Further, they support the blending of qualitative and quantitative data collection explaining that it

fosters analysis that provides for a more in-depth description of what the data reveal from participant responses (Creswell & Plano-Clark, 2007). Additionally, the researcher determined that a cross sectional survey would be the most suitable data collection approach to use. Cross sectional surveys are particularly advantageous as a means for quickly assessing participant attitudes, beliefs, or perceptions at a single point in time. Cross sectional surveys are also an appropriate way to collect data to evaluate program effectiveness which is important to the current study which seeks to examine the effectiveness of a teacher education program through the perceptions of some of its graduates (Creswell, 2005).

The survey for this study collected three kinds of data. First, demographic information included type of certification, grade level taught, gender and years of experience. Second, quantitative data were collected in order to conduct statistical analysis. This was accomplished by questions which respondents responded to on a five-point scale with a default choice. The third and final type of data collected was qualitative. The qualitative part consisted of a series of written, open-ended questions. The qualitative part of the survey was included as a means for respondents to provide a fuller, more in depth description of their perceptions and experiences.

Participants and Setting

Participants for this study were selected from the population of all teachers who had graduated from one university in the southeast region of the United States. The sample for this study consisted of teachers who graduated from one university in the southeast region of the United States during academic years 2004-2005 through 2008-

2009, except for those who had requested that restrictions be placed on their contact information, barring contact from the university after graduation. Those who comprised the sample represented general educators and special educators who taught K-12 students in core subjects and delivered special education services, respectively.

Instrumentation

The researcher gained prior experience in survey design throughout the graduate program. The researcher assisted faculty with several school districts that had requested technical assistance with their data collection initiatives. The opportunities to assist in the development of surveys provided valuable experience in preparation for conducting this study.

Support from Previous Studies

Data collection for this study involved the use of a survey adapted from two earlier studies. These instruments were used after the researcher requested and was granted permission to do so by both of the other researchers. The first was an instrument developed by Austin (2001). The *Perceptions of Co-Teaching Survey* (PCTS) (Austin, 2001) consisted of two parts, the first of which asked for participant demographics and the second examined four distinct areas regarding teacher perceptions of collaboration. The PCTS was developed in consultation with Fennick (1995) and through examination of the professional literature (Herbert, 1998; Fowler, 1995, 1998; Lackaye, 1997). Refinement of the PCTS also involved submission to a panel of nine reviewers with expertise in survey design who examined the instrument and made recommendations for improving its validity and clarity. Additionally, results from a pilot study of the PCTS

confirmed areas of the survey that needed improved clarity and relevance (Austin, 2001).

Survey items in the present study were also based on a second survey, the *Colorado Assessment of Co-Teaching* (Co-ACT) which was developed by Adams, Cessna & Friend (1993) and later adapted by Friend (2008). The Co-ACT, a federally funded project, identified three components viewed as critical to successful co-teaching arrangements through in-depth interviews with veteran co-teachers that produced rich descriptions of their co-teaching experiences. The areas of focus on the Co-ACT included individual interpersonal characteristics, professional relationship indicators, and classroom management/learning environment factors. Validation of the Co-ACT was conducted through a known groups study. This process involved collecting data from co-teachers who were unaware they had been rated in advance as exemplary or struggling. The resulting factor analysis of the data confirmed differences between the two groups, thus attesting to the instrument's validity (Friend, 2008).

To ensure the validity of the present instrument, four faculty members from the researcher's university and one from another university (all experts in special education, teacher preparation and educational leadership) provided input on the survey design. Four doctoral student colleagues (two in special education and two in research methodology) provided additional feedback. In addition, a pilot study was conducted with general and special education teachers that also informed the survey design. All of these measures along with the foundation of the established work of Austin (2001) & Friend (2008) served as assurances of proper design of this instrument. A copy of the Teacher Education Program and Co-Teaching Survey appears in the appendix as it did

on-line to participants. Additionally, copies of the initial email invitation to participate in the study, reminders, and the survey for the incentives, are all located in the appendices.

Finally, consideration was given as to how the survey would be administered. An electronic cover letter was sent via email to potential participants inviting them to take part in the study. A link to the survey was embedded in an email which directed participants to detailed instructions, an online consent form, and the actual online survey. Studies show that internet use (and thus on-line surveys) is relatively commonplace throughout school districts by students, families, community members, administrators, and school personnel, including teachers (Wiersma & Jurs, 2005; Derringer, 2009). The researcher's past experience with surveys specifically involved the use of a particular internet-based platform designed to host an electronic survey during the design and implementation phase. The site provided multiple means of access to the survey. Of particular interest to the researcher was the level of technical support provided, which included reporting of response percentages and frequency counts, which made ongoing data analysis possible (Wiersma & Jurs, 2005). Also, along with the prompt answers for troubleshooting problems came the assurance of strict measures employed to maintain confidentiality (Carbonarar & Bainbridge, 2000). Positive previous experience and familiarity with the internet site made the researcher's choice to use it again for the present study an easy one. Despite the popularity, positive past experiences, and ease of use of on-line surveys, some potential problems are associated with survey research in general. Sampling error, low response rates and the nature of self-reported information are factors that need careful consideration (Dillman, 2007). Finally, factors linked to

problematic item construction can negatively influence survey data resulting in biased results (Creswell, 2005).

Instrument Design

The *Teacher Education Program and Co-Teaching Survey* (TEPACTS) was designed with four parts to examine teacher perceptions of their teacher education program and their early co-teaching experiences. Demographic information was sought in Part I. The focus of Part II was the description of the teacher education program as it related to preparation to co-teach. Part III addressed the co-teaching experience of participants and Part IV consisted of four open-ended questions that solicited insightful written responses about their experiences and perceptions regarding co-teaching and suggestions for improving instructional practice in K-12 classrooms.

Participants were asked to respond to 13 demographic questions which included type of certification, number of years teaching, whether they had co-taught, number of years co-taught, gender, and current teaching status (Appendix B). The first nine items from Part II required responses based on a five-part Likert-type scale from *Strongly Agree, Agree, Neutral, Disagree, Strongly Disagree*, to a default option – *Not applicable*. Items from this section related to their student teaching experience. For example, Items 1, 3, and 7 were, "I felt prepared to co-teach when I started in my first co-teaching assignment." and "I observed effective co-teaching partners in their classrooms during my field experience. (Here, field experience means internships, student teaching and any other work in schools during your TEP.)"; and "My TEP prepared me to deliver instruction using a variety of co-teaching approaches.", respectively. The tenth item

asked the participant if she/he entered co-teaching voluntarily or as a condition of their job. Part III obtained descriptions of teachers' early co-teaching experiences, by using the same five-point scale mentioned above. Items in this section started with, "MY CO-TEACHER AND I:" which was followed by 16 statements such as, "Have a regularly set time for joint planning."; "Have equal decision-making power." and "Take turns talking during the delivery of instruction.". The final section of the survey, Part IV, was comprised of four open-response questions. These items were intended to solicit more detailed descriptions of their co-teaching experiences.

In the final section, Question 1 asked for additional comments regarding respondents' level of preparedness to co-teach in relation to their teacher education program. Question 2 asked respondents to share successes and/or challenges they encountered with co-teaching. Question 3 focused on whether or not teachers' perceptions of co-teaching had changed since they graduated. Question 4 asked for suggestions that might potentially improve instructional practices in P-12 settings.

To ensure the validity of the present instrument, four faculty members from the researcher's university and one from another university (all experts in special education, teacher preparation and educational leadership) provided input on the survey design. Four doctoral student colleagues (two in special education and two in research methodology) provided additional feedback. Moreover, a pilot study was conducted with general and special education teachers that also informed the survey design. Revisions were made based on input from faculty and colleagues and written comments from participants of the pilot study. All of these measure, along with the foundation of the

established work of Austin (2001) and Friend (2008) served as assurances of proper design of this instrument. A copy of the Teacher Education Program and Co-Teaching Survey appears in Appendix B. Additionally, copies of the correspondence for this study, including initial email invitation to participate in the study, reminders, and the survey for incentives, are all located in Appendix C.

Procedure

Standard procedure for conducting research which may be publicly disseminated, particularly in association with a college or university campus includes submitting a formal application to the Institutional Review Board. The present research study was fully described in that application and measures for securing participant consent and maintaining confidentiality were explicitly communicated. The researcher applied for and was granted exempt status by the Institutional Review Board.

Data Collection

After obtaining Institutional Review Board (IRB) approval regarding informed consent for human subjects (Appendix A), a copy of the IRB approval notification was requested by and sent to Alumni Relations via email attachment. Staff in that office provided assistance in distributing an email containing the electronic cover letter, survey instructions, a link to the online survey, and later, an email to remind potential participants to take the survey (Appendix B). A mailed post card reminder and two additional email reminders were sent by the researcher (Appendix C). A statement was included in all correspondence about a drawing for incentives for those who chose to submit their contact information via a separate link after completing the survey. Those

who wished to participate in the incentives drawing for a chance to win $100, or one of three manuals titled *CO-TEACH! (Friend, 2008),* could click on a separate link to a short demographic survey requesting contact information which was used for mailing the prizes to the drawing winners (Appendix D).

Early in the fall semester of 2009, the researcher requested contact information from the school of education for alumni who had graduated from the teacher education program during the academic years 2004-2009. At the time of the request, staff from the alumni relations office reported that there had been 1700 graduates from fall 2004 through spring 2009. They also informed the researcher that the average response rate from alumni was usually about three percent. In accordance with restrictions from the alumni relations office, contact information was not provided for alumni who had requested no contact from the university after graduation. As a result, a total of 1,000 email addresses and mailing addresses were provided for this study. In early November of 2009, an email message was distributed simultaneously to 793 elementary and middle school level general and special educators. Two weeks later, due to delays receiving contact information that were beyond the control of the researcher, the same email was distributed to 207 secondary educators. The email was an invitation to participate in the study, which included a cover letter explaining the study, a link and instructions for accessing the survey, and information about a drawing for incentives after completing the survey. The researcher was notified by staff in the university relations office which handled the email distribution, that 20% of the 793 emails were electronically identified as undeliverable (higher than the typical 15% but not unusual). The total number of

emails delivered for the first group was 634. After the email was distributed to the group of secondary teachers, the researcher was notified that 20% of those emails were returned as undeliverable. Thus, 166 email invitations to participate in the study were successfully delivered to secondary educators. In all, 800 emails were delivered inviting participants to join the study. Roughly two weeks after each group was initially contacted, a reminder email was sent, which included a link to the survey. The body of the email message was the same as the initial email; however, the wording in the subject line changed slightly in an effort to increase chances of the email being opened.

The researcher distributed a second reminder through the postal service on December 31, 2009, instead of electronically, to the mailing addresses that had been supplied by the alumni relations office and the teacher education program. A post card printed with a brief reminder and an easy-to-read URL to the survey was mailed on December 31, 2009. To encourage participants to respond, the researcher personally signed each post card in blue ink to stand out from the black printed text. The researcher distributed another email reminder to participants between January 9th and 12th, 2009. The final email reminder was sent January 17th and 18th, 2010, by the researcher. Of the emails the researcher personally distributed (N=192), 24% were returned as undeliverable. The researcher determined that since the number of surveys completed increased only slightly with the final two reminders, the data collection period closed on January 22nd, 2010. As a result of the original email invitation and first reminder, 92 survey responses occurred. The post card reminder resulted in 24 additional responses.

A total of 30 participants responded after a second email reminder. The final email reminder resulted in another 41 respondents.

The researcher's efforts to increase the typical email response rate were based on the literature about survey research (Creswell, 2005). As a result of the 800 initial emails and subsequent reminders, one hundred eighty-seven surveys were responded to by participants during the data collection phase. A response rate of 22% was realized, which, although low, was an increase of 19% over the typical response rate of 3% reported by university alumni relations staff. Out of 187 surveys that were opened, a total of 149 were actually completed by participants. In all, the entire data collection phase spanned approximately eight weeks.

Data Analysis

Data analysis was important to this study in that it provided a lens through which the researcher could examine data to determine potential relationships between variables as well as strength of those relationships. Additionally, data analysis provided a dimension from which to glean possible answers to the current research question that qualitative analysis alone would not have sufficiently addressed.

Statistical Analysis

The statistical analysis program used to answer the research questions of this study was Minitab®. Minitab® is one of several large statistical packages at the forefront of the field, along with SAS, and SPSS (Howell, 2002). Minitab®, used by many disciplines, is considered highly reliable, generally easy-to-use, and can usually be found in the computer centers of many colleges and universities. Data from the TEPACTS

were analyzed using the Minitab® statistical software package and functions of Microsoft Excel, which are usually standard on many computers. Data were analyzed by using frequencies and percentages and by calculating mean and standard deviation.

Quantitative Data Analysis

The *Teacher Education Program and Co-Teaching Survey* (TEPACTS) was designed to collect data from early-career teachers, that is, those having up to 5 years of teaching experience. Specifically, the TEPACTS sought to determine teacher perceptions of their education program in relation to co-teaching and their co-teaching experiences in the classroom.

As described earlier, the TEPACTS consisted of forty-four items divided into four parts. The first part asked respondents for basic demographic information that included highest degree earned, gender, and number of years teaching. Questions in the second part focused on aspects of the teacher education program. Section three dealt specifically with elements critical to successful co-teaching. The fourth and final part of the survey presented respondents with four open ended questions. These were intended to encourage the respondents to describe their personal thoughts on the effectiveness of their teacher education program. Additionally, they were asked to relate both successes and challenges they experienced early in their teaching careers. This mixed method survey design was used to collect needed quantitative data along with important qualitative data which together would serve to add breadth of information collected as well as depth of insight gained from individual respondents' perspectives.

Participant demographic data were presented first. Participants were graduates of

a teacher education program and represented elementary grades, middle school, and high school. Descriptive statistics included frequency and percentages for nominal data. Continuous data for scaled items were calculated using means and standard deviations.

The research question the study explored was "*How well are teachers prepared to co-teach?"* The following subquestions were the basis for the items used on the survey. Additional questions have been included below in order to facilitate thorough and appropriate analysis of the data for answering the research questions. The first two subquestions pertain to data generated from Part One (which focused mostly on demographic information, but included an item on whether or not the TEP addressed co-teaching) and Part Two of the survey which dealt with perceptions of the TEP and preparedness to co-teach.

Subquestion 1: What are the perceptions of general education teachers regarding their teacher education program's effectiveness in preparing them to co-teach?

To examine research question one, descriptive statistics (frequencies, percentages, mean and standard deviation) were calculated to determine the perceptions of general education teacher participants regarding the extent to which the teacher education program had been effective in preparing them to co-teach. They also indicated the degree to which they felt prepared to co-teach during their first co-teaching assignment. Participant responses used a 5-point Likert-type rating scale ranging from (in descending order) Strongly Agree =1 to Strongly Disagree, and an additional option – Not applicable =6.

Subquestion 2: What are the perceptions of special education teachers regarding their teacher education program's effectiveness in preparing them to co-teach?

To examine research question two, descriptive statistics (frequencies, percentages, mean, mode, and standard deviation) were calculated to determine what factors contributed most to special education teacher participants perceiving the teacher education program as having been effective in preparing them to co-teach. They also indicated to what extent they felt prepared to co-teach during their first co-teaching assignment. Participant responses used a 5-point Likert-type rating scale where, in descending order, response choices ranged from Strongly Agree =1 to Strongly Disagree =5, and an additional option, Not Applicable =6. Additional analysis was conducted by computing a two-sample t-test. The two-sample T test was calculated by comparing means to determine if a relationship exists between school level taught and the perceived level of preparedness to co-teach. Further, regression analysis was used to determine if the level of preparedness to co-teach predicted the number of classes-co-taught.

Subquestion 3: What are the experiences of general education teachers regarding co-teaching early in their careers?

To answer research question three, descriptive statistics were calculated (frequencies, percentages, mean, mode, and standard deviation) to examine the early co-teaching experiences of general education teachers. In order to address this question, the researcher had to think in terms of whether co-teaching experiences were different between GETs and SETs.

Subquestion 4: What are the experiences of special education teachers regarding co-teaching early in their careers?

To answer research question four, inferential statistics were calculated (frequencies, percentages, mean, and standard deviation) to examine the early co-teaching experiences of special education teachers. In order to address this question, the researcher had to explore the co-teaching experiences reported by participants.

Qualitative Data

Four open-ended questions made up the fourth and final part of the survey. These items allowed participants to contribute their own views and perspectives through text. The analysis of the raw data generated from these questions enabled the researcher to analyze repondents' descriptions of their experiences and thus develop themes. These themes, in conjunction with the analysis from the quantitative section of the survey were reviewed to give larger meaning to the findings of the entire study (Creswell, 2005).

Qualitative Data Analysis

To further investigate the question, "How well are teachers prepared to co-teach", the fifth and final subquestion was intended to elicit richer, more detailed descriptions of participants' perceptions of their TEP and early co-teaching experiences.

Subquestion 5: What knowledge and skills do early career teachers believe would have facilitated their co-teaching practice?

The researcher analyzed raw data from four open response items at the end of the survey using several steps (Hahn, 2007). First, over the course of about five readings, and in the tradition of grounded theory (Creswell, 2005), general coding of all raw data

were conducted. Second, the codes were categorized and finally emergent themes were identified. Additionally, a colleague who had worked with the researcher on previous coding tasks independently coded the information. The extra coding produced results similar to those of the researcher, thus appropriate reliability. Those results have been compiled and are presented in Chapter IV.

CHAPTER IV

RESULTS

As a consequence of the changing face of special education and the charge for greater accountability and achievement in K-12 schools, there is a need for large-scale, long-term research regarding the effectiveness of collaboration, and more specifically, co-teaching. Additionally, educators need researchers to conduct studies that use non co-taught comparison groups to examine academic and behavioral outcomes for students with disabilities (Kloo & Zigmond, 2008, Cook & Friend, 2010). Yet there is a dearth of literature on this topic.

Another topic that needs to be addressed more fully in the literature is the extent of the effectiveness of teacher education programs in preparing teacher candidates to meet the needs of today's diverse school populations. Often, general education and special education teachers report not being adequately prepared to meet the complex needs that exist in heterogeneous classrooms (Grant & Gillette, 2006; Hines, 2008). This study aimed to explore teacher perceptions of their teacher education program and to examine their co-teaching experiences early in their teaching careers. The researcher's intent was to add to the knowledge base on what constitutes an effective teacher education program in relation to graduating educators who are effective collaborators and co-teachers.

Quantitative Results

The quantitative portion of the survey included participant demographics, and questions regarding teacher perceptions of their teacher education program and co-teaching experiences. Demographic data were valuable in identifying characteristics of recent teacher graduates. Results of the data analysis conducted on the teacher education program and co-teaching experiences revealed program strengths and areas of need for future consideration by the teacher education program faculty and administration.

Demographics

The majority of survey respondents indicated that they were general education teachers (n=135) who provided instruction across all grade levels (elementary, middle/jr. high, and high school). The numbers of participants teaching at each grade level over the past five years are summarized in Table 1.

Table 1 *General Education Teacher Respondents by Grade Level of Certification*

Grade Level of Certification	Number[1]	Percent
Elementary (K-5th Grade)	77	56.6
Middle (6th-8th Grade)	25	18.4
Secondary (9th-12th Grade)	44	32.4
Dual Certification	5	3.7

[1]Numbers total more than 135 because some teachers hold multiple certifications.

A small number of survey respondents indicated they were special education teachers (n=14) who provided services across a broad range of disability categories. Data on special educators who provided services to children with disabilities over the past five years are summarized by area of certification in Table 2.

Table 2

Special Education Teacher Respondents by Area of Certification

Area of Certification	Number[1]	Percent
Autism	4	26.7
Behavior & Emotional Disabilities	6	40.0
Deaf/Hearing Impairment	4	26.7
Learning Disabilities	7	46.7
Visual Impairment	2	13.3
Dual Licensure	1	6.7

[1]Numbers total more than 14 because some teachers hold multiple certifications.

Of the 158 responses to the item regarding gender, 137 (86.7%) identified themselves as female compared to 21 (13.2%) who identified as male. Two participants did not respond to the gender item. Out of 159 participants who answered the question on current teaching status, 132 (82.5%) responded that they were currently teaching and 27 (16.88%) responded that they were not. In response to the item regarding number of years teaching, the largest group, with 39 respondents (24.4%) indicated they had taught

less than three years, including the current year, followed by the next largest group of 31 respondents (19.4%), who had been teaching for less than one year. The third largest group had 30 (18.8%) respondents who had been teaching two years, followed by respondents having taught four and five years respectively, with group numbers at 25 (15.6%) and 23 (14.4%), respectively. The smallest group represented, 12 respondents, (7.5%) had one year of experience. These results are summarized in Table 3.

Table 3

Number of Years Teaching Including This One

Years	Number	Percent
Less than 1	31	19.4
1	12	7.5
2	30	18.8
3	39	24.4
4	25	15.6
5	23	14.4

Regarding the highest degree earned, 161 participants responded. Participants with a Bachelors degree totaled 135 (83.9%) and outnumbered those with a Masters degree (N=26; 16.1%). These data are summarized in Table 4.

Table 4

Highest Degree Held by Participants

Highest Degree	Number	Percent
Bachelors	135	83.9
Masters	26	16.1

Part one of the survey captured a snapshot of the educators who participated in the study.

Subquestion 1: What are the perceptions of general education teachers regarding their teacher education program's effectiveness in preparing them to co-teach?

Subquestion 2: What are the perceptions of special education teachers regarding their teacher education program's effectiveness in preparing them to co-teach?

To answer the first two research subquestions, the researcher thought in terms of whether a difference exists in the perceived level of preparedness to co-teach between general education teachers (GETs) and special education teachers (SETs). In answer to this question, Table 5 shows the percentages of general education teachers (GETs) and special education teachers (SETs) separately and combined. Responses indicating agreement were combined to make Yes and those indicating disagreement were combined to make No indicating whether or not co-teaching had been addressed in the TEP. Both GETs (38%) and the SETs (71%) indicated that co-teaching was addressed in the teacher education program. However, 62% of GETs and 29% of SETs indicated that

co-teaching had not been addressed. Generally, SETs believed the TEP addressed co-teaching more than the GETs. However, overall, slightly less than half of all respondents to this item believed the TEP addressed co-teaching while slightly more than half indicated it did not, as summarized in Table 5.

Table 5

Responses Indicating Whether TEP Addressed Co-Teaching

	TEP Addressed Co-Teaching					
	GET		SET		Combined	
	#	%	#	%	#	%
YES	51	38	10	71	61	43.8
NO	84	62	4	29	88	56.3

Of the general education teachers who responded to Item 1 in Part Two of the survey, 42 (34%) agreed that they were prepared to co-teach in their first assignment by the teacher education program. There were 25 (21%) who disagreed that teacher education program had prepared them to co-teach. Of the special education teachers who responded, a total of five (36%) indicated agreement that they were prepared to co-teach in their first assignment. Three special educators (21%) did not think they were prepared to co-teach in their first assignment. These data are summarized in Table 6.

Table 6

Level of Preparedness of GETs vs. SETs Prepared to Co-Teach in 1st Assignment

	GET vs. SET							
	GET				SET			
Response	#	%	M	SD	#	%	M	SD
SA	10	8	20.33	12.07	1	7	2.33	1.63
A	32	26			4	29		
N	17	14			2	14		
D	17	14			3	21		
SD	8	7			0	0		
N/A	35	31			4	29		

Additionally, Items 2, 5, 8, 9, asked respondents if TEP faculty (a) modeled effective co-teaching; (b) provided students with coaching on co-teaching skills field experience; (c) prepared students to meet the needs of students with disabilities (SWD) in the general classroom; and (d) prepared students to provide accommodations in the general setting. In general, most responses to Items 2 and 5 indicated neutrality or disagreement. However, some responses indicated SETs and GETs thought co-teaching skills were modeled or coached somewhat during their teacher education program, as summarized in Tables 7 and 8 (Appendix B).

Table 7

Item 2: My TEP faculty modeled effective co-teaching.

SET					GET				
	#	%	M	SD		#	%	M	SD
SA	3	21	2.33	1.21	SA	11	9	20.50	9.22
A	3	21			A	25	20		
N	3	21			N	16	13		
D	3	21			D	35	28		
SD	0	0			SD	12	10		
N/A	2	14			N/A	24	20		

Table 8

Item 5: I received coaching from TEP faculty on my co-teaching skills during my field experience.

SET					GET				
	N	%	M	SD		N	%	M	SD
SA	1	7	2.16	0.98	SA	11	9	20.16	6.49
A	4	29			A	24	20		
N	2	14			N	17	14		
D	2	14			D	25	21		
SD	2	14			SD	16	13		
N/A	2	14			N/A	28	23		

Similarly, GET and SETs indicated the TEP provided them with some preparation to meet the needs of students with disabilities and provide them with accommodations within the general curriculum setting. However, over half the GETs disagreed or were neutral on this. These data are summarized in Tables 9 and 10.

Table 9
Item 8: *My TEP prepared me to meet the needs of students with special needs in the general curriculum classroom.*

SET					GET				
	N	%	M	SD		N	%	M	SD
SA	5	36	2.33	3.38	SA	17	14	20.50	16.76
A	8	57			A	52	42		
N	0	0			N	22	18		
D	1	7			D	19	15		
SD	0	0			SD	5	4		
N/A	0	0			N/A	8	7		

Table 10

Item *9: My TEP prepared me to provide accommodations for students with special needs in the general curriculum classroom.*

SET					GET				
	N	%	M	SD		N	%	M	SD
SA	5	36%	2.33	2.94	SA	18	15%	20.50	15.83
A	7	50%			A	49	40%		
N	1	7%			N	26	21%		
D	1	7%			D	17	14%		
SD	0	0%			SD	6	5%		
N/A	0	0%			N/A	7	6%		

Further analysis was conducted by calculating the means of the responses by school level in relation to perceived level of preparedness to co-teach. These calculations

were performed to determine any relationships between the means of the different groups of educators. Results indicate the means are relatively similar which suggests there was generally not much difference in the responses by school level (elementary, middle, and high school) regarding educators' preparedness to co-teach (see Table 11).

Table 11

Preparedness to Co-Teach by School Level

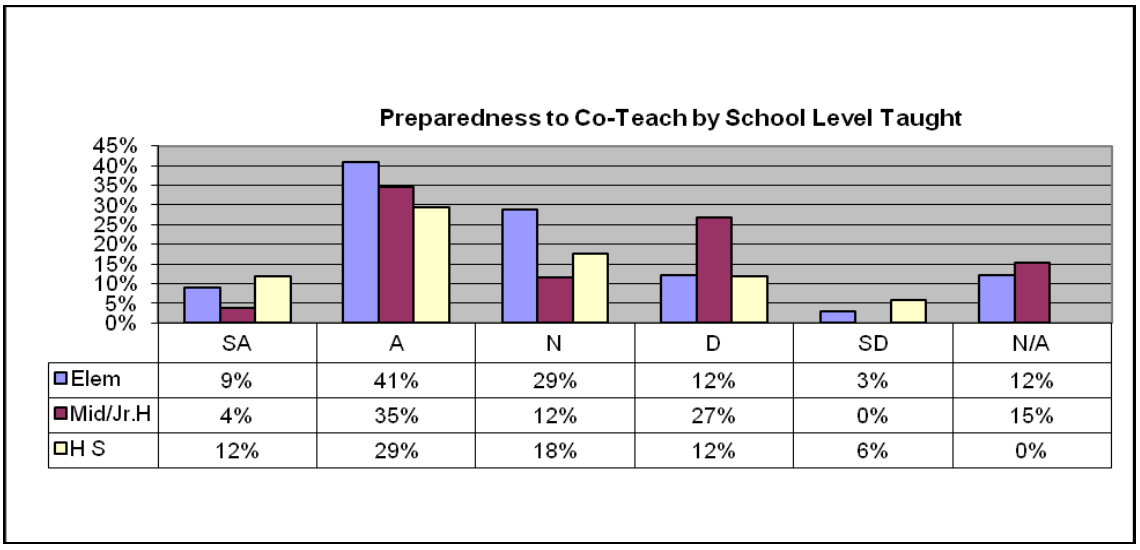
Elem		Mid/Jr.H		H S	
Mean	2.95	Mean	3.33	Mean	2.86
Standard Deviation	1.51	Standard Deviation	1.52	Standard Deviation	1.33
Count	62	Count	24	Count	29
Confidence Level(95.0%)	0.38	Confidence Level(95.0%)	0.64	Confidence Level(95.0%)	0.51

Half the elementary level educators indicated preparedness to co-teach whereas middle level and secondary educators agreed at 39% and 41% respectively. More than twice as many middle level educators (27%) indicated they were unprepared to co-teach than elementary and high school level educators at 15% and 18%, respectively. Elementary and middle school respondents indicated the school level they taught versus their level of preparedness to co-teach was applicable at 12% and 15%, respectively. However, data suggest respondents who taught at the high school level perceived their level of preparedness to co-teach was not applicable to the school level they taught, as

shown in Figure 1.

Figure 1

Preparedness to Co-Teach by School Level Taught



	SA	A	N	D	SD	N/A
Elem	9%	41%	29%	12%	3%	12%
Mid/Jr.H	4%	35%	12%	27%	0%	15%
H S	12%	29%	18%	12%	6%	0%

In the following two-sample t-test, middle and high school samples were combined. The t-statistics were calculated by subtracting the difference between the two sample means from the null hypothesis, which is $\mu_1 - \mu_2 =$ zero. The critical value of t = 2.09 indicates a significant difference between the two sample means. Since the difference of the two sample means is greater than 2.09, it is safe to conclude that the grade level taught and perceived level of preparedness to co-teach are related (i.e., elementary teachers felt better prepared to co-teach). Results of the T-Test are summarized in Table 12.

Table 12

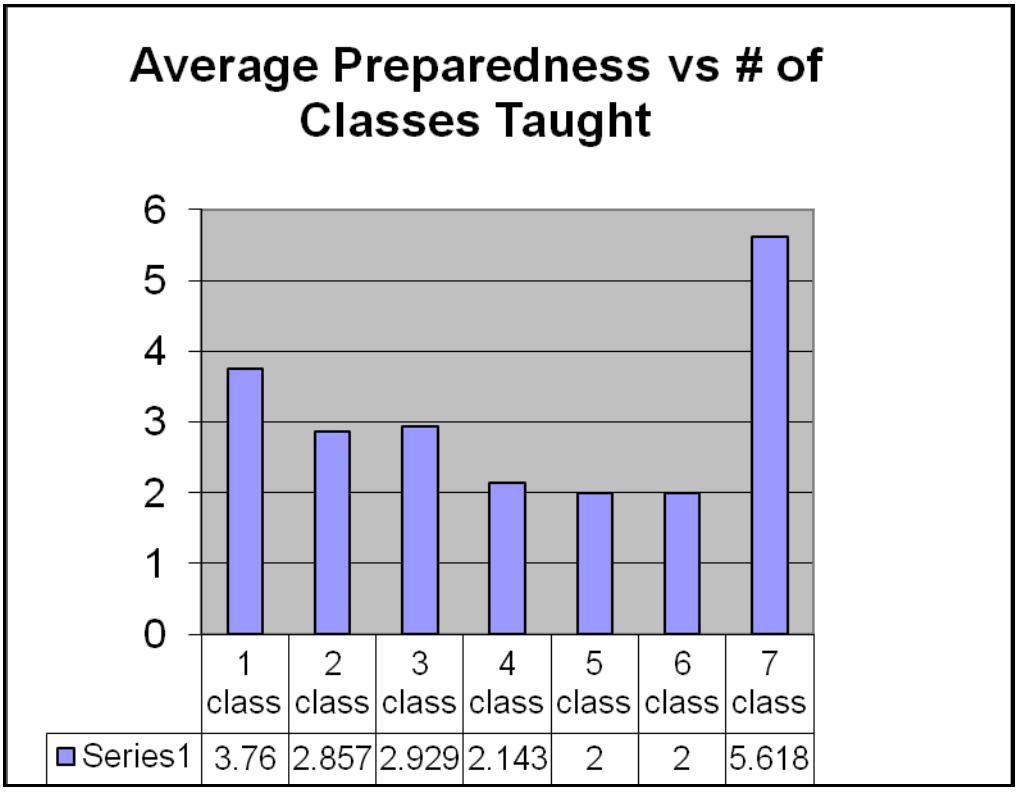
Two-Sample T-Test Results for Grade Level Taught vs. Perceived Level of Preparedness to Co-Teach

	Elem	Mid/Jr.H
Mean	2.95	3.33
Variance	2.28	2.32
Observations	62	24
Hypothesized Mean Difference	0	
df	42	
t Stat	-1.05	
P(T<=t) one-tail	0.15	
t Critical one-tail	1.68	
P(T<=t) two-tail	0.30	
t Critical two-tail	2.09	

Analysis was conducted on data regarding number of classes co-taught in comparison to the level of preparedness respondent indicated. Data suggested a negative correlation: The more prepared to co-teach educators perceived they were, then the fewer co-taught classes they taught in a single day. This is depicted in Figure 2.

Figure 2.

Number of Co-Taught Classes vs. Perceived Level of Preparedness to Co-Teach



As shown below in Table 13, regression analysis suggests the level of preparedness to co-teach is a predictor of the number of classes taught in a single day. In other words, data suggest that educators who were more prepared to co-teach actually co-taught fewer classes. This finding will be discused in Chapter IV, Results.

Table 13

Regression Analysis: Prepared vs. Number of Classes Co-Taught

Predictor	Coef	SE Coef	T	P
Constant	2.84	0.24	12.06	0.0005
Number Classes	0.280	0.06	4.81	0.0005

Subquestion 3: What are the experiences of general education teachers regarding co-teaching early in their careers?

Subquestion 4: What are the experiences of special education teachers regarding co-teaching early in their careers?

Only general and special educators who had ever co-taught were asked to complete this portion of the survey. To answer research questions three and four, descriptive statistics were calculated (frequencies, percentages) to examine the early co-teaching experiences of general and special education teachers. In addition, data were analyzed to determine if there were differences in co-teaching experiences between GETs and SETs. In Part Three of the survey, participants responded to a 16 items that began with the phrase, "My co-teacher and I". These items were intended to help participants describe their early co-teaching experiences. Table 14 is a summary of those data.

Table 14

GET Communication /Co-teaching Summary

GET Responses	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		NA				
My co-teacher and I:	N	%	N	%	N	%	N	%	N	%	N	%	M	SD	Total
1. Have a regularly set time for planning.	9	13.0	24	34.0	6	8.5	19	27.1	3	4.2	9	13.0	11.7	8.1	70
2. Share our expertise knowledge and skills with each other	20	28.0	37	52.0	2	2.8	2	2.8	1	1.4	8	11.4	11.7	14.3	70
3. Communicate with each other during the lesson to facilitate student learning.	15	21.7	36	52.1	4	5.7	2	2.9	1	1.4	11	15.9	11.5	13.2	69
4. Solicit each other's feedback.	22	31.4	35	50.0	4	5.7	0	0.0	0	0.0	9	13.0	11.7	14.1	70
5. Acknowledge our weaknesses to each other.	11	15.9	35	50.7	12	7.4	3	17.4	0	0.0	8	11.6	11.5	12.4	69
6. Seek assistance from each other.	23	32.9	34	48.6	5	7.1	0	0.0	0	0.0	8	11.4	11.6	13.8	70
7. Use effective communication skills (e.g., vocal cues, listening, non-verbal cues).	20	29.9	32	47.8	6	9. 0	0	0.0	0	0.0	9	13.4	11.2	12.6	67
8. Committed to strengthening our professional relationship.	23	33.3	29	42.0	8	1.6	0	0.0	0	0.0	9	13.0	11.5	12.0	69
9. Have equal decision-making power.	17	24.6	29	42.0	5	7. 2	6	8.7	3	4.3	9	13.0	11.5	9.9	69
10. Take turns talking during the delivery of instruction	11	15.9	28	40.5	8	11.6	9	13.0	2	2.9	11	15.9	11.5	8.7	69
11. Work with all students with and without disabilities.	28	41.2	27	39.7	3	4.4	1	1.5	1	1.5	8	11.8	11.3	12.8	68
12. Participate equally in grading student assignments.	10	14.3	20	28.6	11	15.7	14	20.0	5	7.1	10	14.3	11.6	5.0	70
13. Share classroom responsibilities (e.g., parent communications, discipline issues, etc.).	10	14.7	32	47.0	8	11.8	7	10.3	8	11.8	3	4.4	11.3	10.4	68
14. Have both our names on schedules and report cards.	6	8.7	15	21.7	5	7.2	20	29.0	8	11.6	5	7.2	9.8	6.2	69
15. Have both our names on the board.	10	14.5	16	23.2	7	10.1	20	29.0	3	4.3	13	18.8	11.5	6.2	69
16. Have similar classroom materials and equipment such as desks and chairs.	12	17.4	27	39.1	5	7.2	10	14.5	4	5.9	11	15.9	11.5	8.2	69

A total of 70 responses were provided by general education teachers. Responses that were "Strongly Agree" or "Agree" were combined for analysis to indicate "yes". Similarly, "Strongly Disagree" and "Disagree" were combined to indicate "no". Of that number, 47% indicated that they had a regularly set time to plan jointly with their co-

teaching partner while 31% lacked regular, joint planning time. Roughly 80% responded that they and their co-teacher shared their expert knowledge and skills with each other, solicited assistance and sought feedback from each other, and worked with all students with and without disabilities. Nearly 74% responded that they shared their expert knowledge and skills with their co-teaching partner. Also, about 70% of the respondents indicated that they communicated with their co-teacher during lessons to facilitate student learning, used effective communication skills and were both committed to strengthening their professional relationship. A total of 67% of respondents indicated that joint decision-making occurred with their co-teacher. Nearly 62% (61.7%) of the participants responded that they shared classroom responsibilities with their co-teaching partners. Slightly more than half (56.4%) of the general educators said they took turns talking during instructional delivery with their co-teachers and (56.5%) indicated they had comparable classroom materials and equipment. Forty-two per cent of the participants agreed that they shared grading of student work equally with their co-teacher, while nearly 38% said they both had their names on the board in the classroom. Only thirty percent (30.4 %) of the respondents indicated that both co-teachers' names appeared on school documents such as class schedules and report cards.

Seven of 14 special education teachers indicated they had co-taught and provided responses that described their co-teaching experiences in this section. Table 15 presents a summary of the data from this section of the survey. Note that some percentages have been rounded.

Table 15

SET Communication/Co-Teaching Summary

SET Responses	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree		NA				
My co-teacher and I:	N	%	N	%	N	%	N	%	N	%	N	%	M	SD	Total
1. Have a regularly set time for planning.	0	0.0	2	29.0	0	0.0	5	71.0	0	0.0	0	0.0	1.2	2.0	7
2. Share our expertise knowledge and skills with each other	2	29.0	4	57.0	1	14.0	0	0.0	0	0.0	0	0.0	1.2	1.6	7
3. Communicate with each other during the lesson to facilitate student learning.	3	43.0	3	43.0	0	0.0	1	14.0	0	0.0	0	0.0	1.2	1.5	7
4. Solicit each other's feedback.	1	14.0	5	71.0	0	0.0	1	14.0	0	0.0	0	0.0	1.2	1.9	7
5. Acknowledge our weaknesses to each other.	1	14.0	4	57.0	0	0.0	2	29.0	0	0.0	0	0.0	1.2	1.6	7
6. Seek assistance from each other.	1	14.0	5	71.0	1	14.0	0	0.0	0	0.0	0	0.0	1.2	1.9	7
7. Use effective communication skills (e.g., vocal cues, listening, non-verbal cues).	1	14.0	5	71.0	1	4.0	0	0.0	0	0.0	0	0.0	1.2	1.9	7
8. Committed to strengthening our professional relationship.	1	14.0	5	71.0	1	14.0	0	0.0	0	0.0	0	0.0	1.2	1.9	7
9. Have equal decision-making power.	2	29.0	2	29.0	1	14.0	2	9.0	0	0.0	0	0.0	1.2	1.0	7
10. Take turns talking during the delivery of instruction	1	14.0	5	71.0	0	0.0	1	4.0	0	0.0	0	0.0	1.2	1.9	7
11. Work with all students with and without disabilities.	3	43.0	3	43.0	1	14.0	0	0.0	0	0.0	0	0.0	1.2	1.5	7
12. Participate equally in grading student assignments.	1	14.0	1	14.0	1	14.0	3	43.0	1	14.0	0	0.0	1.2	1.0	7
13. Share classroom responsibilities (e.g., parent communications, discipline issues, etc.).	2	29.0	2	29.0	1	14.0	2	29.0	0	0.0	0	0.0	1.2	1.0	7
14. Have both our names on schedules and report cards.	0	0.0	1	14.0	1	14.0	2	29.0	3	43.0	0	0.0	1.2	1.2	7
15. Have both our names on the board.	1	14.0	1	14.0	2	29.0	1	14.0	2	29.0	0	0.0	1.2	0.8	7
16. Have similar classroom materials and equipment such as desks and chairs.	0	0.0	2	29.0	2	29.0	1	14.0	1	14.0	1	14.0	1.2	0.8	7

The majority (N=5; 71%) had no regularly set joint planning time with a co-teacher. Most special education teachers (N=6; 86%) shared their expert knowledge and skills with their co-teacher as well as communicated with them during lessons to facilitate student learning. Additionally, 86% agreed that they solicited feedback from teaching

partners, asked each other for assistance, were committed to strengthening their professional relationship, took turns talking during the delivery of instruction, and both worked with all students with and without disabilities. Eighty-five percent of respondents agreed they and their co-teachers used effective communication skills with each other. Seventy-one per cent said they acknowledged their weaknesses to each other. Additionally, four special educators (N=4; 58%) indicated they shared decision making and classroom responsibilities with their co-teachers. However, some (N=2; 29%) disagreed with these descriptions. Concerning grading of student assignments, special educators (N=2; 28%) agreed that they participated equally with their co-teachers, while others (N=4; 57%) disagreed. One respondent (14%) agreed that his/her name appeared equally with his/her co-teacher's name on schedules and report cards; five indicated disagreement. Two (28%) respondents agreed that their name appeared on the board while others (N=3; 43%) disagreed. Responses were split regarding whether they had equal classroom materials with two each (approximately 29%) agreeing and disagreeing on this item. Others (29%) gave a Neutral response and the others (14%) gave a Not Applicable response.

Part Three of the survey instrument was designed to provide a snapshot of the participants' co-teaching experiences early in their careers. The descriptions provided in this part of the survey directly addressed the subquestions regarding the early co-teaching experiences of both general and special education teachers. In turn, these and the other subquestions helped determine an answer to the research question: "How well are teachers prepared to co-teach?"

Qualitative Results

Part Four of the *Teacher Education Program and Co-Teaching Survey* gave participants an opportunity to respond to four open-ended items. These items were intended to address the subquestion regarding the knowledge and skills teachers believed would have helped them in their early co-teaching assignments. The four items asked participants for additional comments, descriptions of successes and challenges in co-teaching, descriptions of how their attitudes about co-teaching had changes since graduation and suggestions for improving co-teaching. The total number of open-response comments (N=212) consisted mostly of general education teachers (N=49) with a smaller portion attributed to special education teachers (N=7). It is noted that some of the responses addressed multiple topics and were divided accordingly to facilitate analysis. In all, a total of 56 participants responded to the four questions in last part of the survey. These responses were intended to address the fifth subquestion.

Subquestion 5. What knowledge and skills do early career teachers believe would have facilitated their co-teaching practice?

To address the above subquestion, qualitative data were collected from four open ended questions at the end of the quantitative section of the survey. Raw data from participant responses were coded, labeled, and then categorized. Finally, emergent themes were identified. The results of that process appear in the summary that follows, starting with the first open response item.

1. **What other comments do you have regarding your teacher education program in relation to your level of preparedness to co-teach?**

Most comments about the teacher education program (N=14) suggested co-teaching was not thoroughly addressed. Eleven comments suggested co-teaching was not modeled or observed, or that the respondent did not recall. Nine respondents indicated they would have desired co-teaching experiences during the program while five commented they had favorable experiences with co-teaching in the program (Table 16).

Table 16

Other Comments Regarding Teacher Education Program

Don't recall co-teaching addressed in TEP (2GET)	2
Other, e.g., unprepared for real world/teaching (1SET),co-teaching not TEP responsibility (1GET), co-teaching = student teaching, or = inclusion (1SET)	3
Well-prepared to co-teach (1SET), got a lot out of field experience with co-teaching (4GET)	5
Prepared for general teaching, good student teaching experience/co-teaching not hard (GET)	8
I wish I was taught or modeled how to co-teach in a high school math class; I wish there would've been more instruction related to co-teaching; I would have liked to learn what my options were as far as co-teaching goes and how co-teaching can be effectively utilized (GET)	9
Co-teaching was never/not observed/modeled/taught (GET)	9
TEP didn't really address (1SET)/slim to no prep/only a little discussion/required only on paper/saw 2 poor models & struggled during own first co-teaching assignment (GET)	14
Total	**50**

*Note: Responses of N/A, No, etc. were not included in the above data. Also, SET & GET designates which group of teachers to attribute a comment(s).

Theme from Question 1: Teacher preparation

This theme suggests that responses indicate a need for more direct instruction regarding co-teaching in the teacher education program. Respondents expressed a need for more field experience at schools that use co-teaching models (especially high schools). Responses also indicate opportunities to practice co-teaching during field experiences in the TEP, at all grade levels, should be increased. Additionally, data suggest more course content that focuses on co-teaching and how the models are used in classrooms is needed.

Participant comments that support this theme include these:

- I feel that my experiences at (_____University) had me very well prepared in almost all aspects of my teaching career. I was exposed to many philosophies, strategies, and demographics which improved my abilities to reach all groups at all levels. (GET)
- I have not yet had to co-teach, but I can say that the TEP did not ever really address it. If I were to have to co-teach, not only would I have no experience in it, but I have no informative background to draw from either. (GET)
- UNCG prepared me with awesome tools for co-teaching. All of the models were thoroughly explained. This gave me the confidence to share my ideas with the general education teachers. Unfortunately, my school administration has made it extremely difficult for my co-teachers to plan with me. (SET)
- I do not recall being taught the expectations of co-teaching. I wish there would've been more instruction related to co-teaching because this was my teaching assignment for the first 2 and a half years of my teaching experience. (GET)

2. a. **What <u>successes</u> and/or challenges have you experienced in co-teaching?**

The comments on successes regarding co-teaching generally dealt with success occurring due to certain factors. Some comments (N=10) suggest that co-teaching was considered successful if goals, ideas, planning, and teaching are shared efforts. A total of 11 comments describe factors such as a love for co-teaching and inclusion as well as factors related to personal growth and the professional relationship with the co-teacher including communication (Table 17).

Table 17

Successes Experienced in Co-Teaching

Success due to content/subject knowledge of co-teaching partner (GET)	2
Success due to professional relationship; communication skills ; strengths & weaknesses; mentoring (GET)	3
Students made progress, succeeded after transition to general setting, individualized instruction (GET)	3
Other (non-examples of co-teaching) teaching separate subjects; one does all the teaching/plan & but they make materials jointly; teaming; co-operating teacher (GET)	4
Successes: love co-teaching & inclusion (1SET) (gained confidence & respect; personal & professional growth; learned from each other – longer together the better it got; like having another adult); great EC teachers (7GET)	8
Success due to sharing goals, ideas, planning, teaching (1SET) (9GET)	10
Total	**30**

2. b. **What successes and/or challenges have you experienced in co-teaching?**

Two main challenges associated with co-teaching were commented on by respondents. Planning (N=11) and parity (N=11) issues garnered the most comments. Comments (N=5) on teacher personality/behavior and training/preparation suggested these were challenges areas of need as well. Comments on communication (N=3) indicated this was a concern. Additionally, respondents indicated that scheduling, student behavior problems, and lack of content knowledge also were issues (Table 18).

Table 18

Challenges Experienced in Co-Teaching

Scheduling issues (1SET) (1GET)	2
Lack of content knowledge (GET)	2
Other (not many challenges, students with challenging behavior (GET)	2
Communication problems (GET)	3
Teacher personality/behavior problems/lack of training or preparation (GET)	5
Planning issues (1SET) (10GET)	11
Parity issues (control; lack of power-sharing; roles & responsibilities; decision-making) (GET)	11
Total	**36**

Theme from Question 2: Interpersonal Skills, Planning, and Scheduling

Participant responses indicate a need for the teacher education program and school/district level professional development to address interpersonal skills, joint planning, and scheduling to support co-teaching. Successful co-teaching experiences were characterized by the sharing of ideas, instructional delivery, and classroom responsibilities. Challenging co-teaching experiences included participant responses that indicated that as student teachers, they felt it was difficult to engage in co-teaching because the roles were not well defined. Data suggest that another challenge was finding time to plan. Additionally, service delivery was also a challenge due to scheduling and issues with teaching content area (special education teachers) were all implicated as areas of need. Finally, general educators indicated having difficulty sharing control. Comments in support of this theme include the following:

- I like the shared responsibility of teaching responsibilities (grading, small groups, preparing for class, etc.). (GET)
- Co-teaching was very successful. The teacher was only in the room for 45 minutes at a time, but we shared teaching. We planned together every week and she often delivered instruction. (GET)
- I love co-teaching and inclusion classrooms. (SET)
- Working with the teacher was a good experience – we were able to work good together. (SET)
- It is difficult for me to share my classroom. I am a perfectionist and have some difficulty delegating and sharing certain responsibilities. (GET)
- PLANNING TIME!!!... The planning has to happen on your own time on your own dime. (SET)

3. **How have your perceptions of co-teaching changed since graduation?**

In general, few respondents answered the question directly. However, several comments indicated favorable participant perceptions (N=12), suggesting co-teaching was valuable if it was collaborative and student-centered. An additional 2 respondents indicated co-teaching would be more valuable if taught in the teacher education program or in professional development. Another seven comments referred to co-teaching as a valuable tool or program (Table 19).

Table 19

Positive Perceptions of Co-Teaching

More valued if learned about in the TEP or PD (GET)	2
Useful tool or program (GET)	7
Valuable if collaborative, student-centered (1SET) (11GET)	12
Total	**21**

In contrast, several respondents (N=5) indicated they did not like co-teaching or serving students with disabilities. Comments on planning and scheduling (N=3) as well as relationship issues (N=3) were perceived negatively. Eight combined responses had either no perception of co-teaching, were neutral about it or provided a comment that did not address the question.

Negative perceptions of co-teaching are summarized in Table 20.

Table 20

Negative Perceptions of Co-Teaching

No perception (GET)	1
No co-teaching for new teachers; no HS co-teaching (1SET) (GET)	2
Planning and scheduling issues (2SET) (1GET)	3
Relationship issues (1SET) (2GET)	3
Rather not have them; rather teach traditionally; don't enjoy it (GET)	5
Neutral or didn't address the question (GET)	7
Total	**21**

Theme from Question 3: TEP Develop Student-Centered, Collaborative Co-Teachers

Responses indicate that co-teaching is learned about in the TEP, valued as a useful tool or program and it is student-centered and collaborative, especially for students with disabilities. Additionally, some participants perceive the TEP as key to professionals' acquisition of knowledge and skills about co-teaching. However, data indicates that a number of participants had negative or neutral perceptions of co-teaching. Comments supporting this theme include these:

- I am appreciative of co-teaching; however [I] have not been a part of a very successful co-teaching situation. I think it is highly useful and necessary in classrooms but much more preservice preparation would have been much more helpful. (GET)

- I thought co-teaching would be more of a collaborative effort but has turned out to be more of an extra pair of hands to help a few students in the inclusion class. (GET)
- It's not quite as "polished" and professional as they make it sound. Not all teachers are good teachers, and believe it or not, not all teachers or classes are created equal....it's a "get down and dirty" business that is HARD, HARD work. (SET)
- I think it could be beneficial for students who are only slightly behind peers in the general curriculum, but I think students who need more one-on-one assistance could continue to fall farther behind in co-teaching setting. (SET)

4. In relation to co-teaching, what suggestions would you make to help improve instructional practices in K-12 classrooms?

Most comments (N=16) suggested co-teaching related issues be addressed in the teacher education program. Three comments suggested professional development is needed on co-teachers roles. Finally, communication, planning, and content all received one comment as a suggestion for improving K12 instructional practices (Table 21).

Table 21

Suggestions to Improve Instructional Practices in K-12 Classrooms

Communication (SET)	1
Planning (GET)	1
Content (GET)	1
PD on co-teaching (roles) (1SET) (2GET)	3
Address issues in TEP - e.g., planning, co-teaching, etc. (3SET) (13GET)	16
Total	**22**

Theme from Question 4: Teacher Education, and Classroom Practice

For the final theme, data suggest the teacher education program should ensure that even more of its candidates are prepared to handle various issues that commonly arise in co-teaching assignments. Participants indicated a need for more planning time, as well as an emphasis on content and communication. Professional development was suggested by a few respondents as a means to address some issues for professionals in the field. Comments supporting this theme include the following:

- I think that everyone should have the opportunity to co-teach during student teaching, or at least in some field experience. Collaborating on a daily basis with another teacher who may be more practiced in working with different types of students really is a way to be a more effective teacher. (GET)
- I think everyone should be introduced to it as part of educational training in college so you don't get into the real world and have little to no understanding of what it means to be a co-teacher. (GET)
- Make sure general education teachers know how to incorporate the EC teacher. So many EC teachers are looked at as assistants and not teachers. Make sure you ask the EC teachers what their strengths are. If they don't know the subject matter, coach them a little or give them one of your lesson plans and have them try teaching one day. It might make the students pay attention more. (GET)
- That regular education teachers use special education teachers to help in the classroom and as an equal. It is hard feeling like an assistant when I have the same amount of education as the regular teacher. (SET)
- Let students visit classrooms where co-teaching is occurring. Have teachers who are co-teaching come talk to students in undergraduate and graduate programs to talk about their experiences and answer questions. (SET)

Summary

From the responses provided in the quantitative sections of the survey the data seem to suggest that in general, the teacher education program effectively addressed co-teaching for about half its graduates. Participants reported that co-teaching was addressed in the TEP through means such as modeling, observation and hands-on field experiences. However, data from other general and special education teachers indicated that overall, the extent of the effectiveness of the TEP in preparing them to co-teach was somewhat lacking.

In contrast, raw data from the qualitative portion of the study seemed to indicate two major themes. Additionally, the researcher determined that overall, teachers received valuable instruction in serving students with disabilities in the general education classroom. However, numerous responses indicated that respondents seemed to have a vague definition of co-teaching and were unclear about roles and responsibilities related to co-teaching partners. Finally, respondents indicated a lack of co-teaching modeling and coaching by faculty.

CHAPTER V

DISCUSSION

Much has been written on the need for collaboration in schools to meet the demands presented by an increasingly diverse student population (Mohr & Dichter, 2001; Brownell & Walther-Thomas, 2002; Duchardt, Marlow, Inman, Christensen, & Reeves, 1999; Friend & Cook, 2010; Cook & Friend, 2010). Additionally, the challenges teachers face in meeting the academic and social needs of students with disabilities and other unique learning needs are often overwhelming for a single teacher in one classroom (Bauwens & Hourcade, 1991; Grant & Gillette, 2006; Little & Theiker, 2009; Nevin, Cramer, Voigt & Salazar, 2008). Over the past several decades, co-teaching has been viewed as a means to address the classroom needs of both students and the teachers who instruct them (Kloo & Zigmond, 2008; Rea & Connell, 2005). However, there is a gap in the literature regarding the effectiveness of teacher education programs in preparing their graduates to be effective collaborators and co-teachers. This study sought to explore the perceptions of general and special education teachers related to the effectiveness of their teacher education program to prepare them for school collaboration, specifically co-teaching. The research question was, "How well are teachers prepared to co-teach?"

This study is significant in that its findings may be useful for faculty in future decision-making regarding course enhancement and field experience development in teacher education as well as continued school reform efforts on the university and district

levels. It is imperative that the preparation of teachers who graduate with knowledge and skills in co-teaching as collaborative practice enables them to effectively address the needs of students with disabilities and other diverse learners. This level of preparation would help ensure all students have the same chance to reach their potential during their school experience (Grant & Gillette, 2006; McDuffie, 2009).

Moreover, federal laws imply greater collaboration is needed among professionals (particularly general and special educators) for team decision-making, participation in most IEP meetings as well as stress the importance of parent participation (Cook & Friend, 2010). The aim of the study was to generate data that are helpful to a teacher education program to develop and graduate teachers who are collaboratively competent, demonstrate effective classroom practices and promote improved outcomes for K12 students, especially those with disabilities.

Researchers argue that when collaboration is prioritized in the educational setting, especially among and between general and special educators, students are the main beneficiaries (Bush, 2003; White-Clark, 2005). Study of (a) teacher perceptions of a teacher education program effectiveness regarding preparation for co-teaching and (b) their early co-teaching experiences was the basis for this study. The researcher hopes that teachers so prepared will lead to improvement of student outcomes in K-12 settings.

Data collection for this study consisted of a mixed methods approach. A survey instrument, the *Teacher Education and Co-Teaching Survey* (TEPACTS), was designed to collect both quantitative and qualitative data, including participant demographics. Generally, the blending of quantitative and qualitative data within one research project

promotes data collection on a broader, deeper level which facilitates a more thorough analysis than studies that are solely quantitative or qualitative (Creswell & Plano-Clark, 2007). The TEPACTS was designed as a cross sectional survey which, according to researchers are valuable for quickly determining participant attitudes, beliefs or perceptions at one point in time. Cross sectional surveys have also become a standard way to collect data to evaluate program effectiveness. Thus, it was an appropriate choice for the current study which sought to determine the effectiveness of a teacher education program through the perceptions of recent graduates (Creswell, 2005).

The survey was divided into four distinct parts. Part 1 focused on participant demographics. Participants for this study were selected from the population of all teachers who have graduated from the Teachers Academy at the University of North Carolina at Greensboro. The sample consisted of graduates from the Teachers Academy during academic years 2004-2005 through 2008-2009. Participants were general and special education teachers with current mailing addresses, active email addresses and had no instructions to the University Relations Office to prohibit contact after graduation, as some graduates had requested.

In general, the majority of the participants were general education teachers who held a bachelor's degree and had three or less years of teaching experience. The largest group of participants (77; 57%) was K-5 elementary level teachers. The next largest group was 9-12 secondary level teachers. The third group was 6-8 middle school level. The smallest group of respondents consisted of 14 special education teachers.

In order to address the research question "How well are teachers prepared to co-

teach?" five subquestions were posed by the researcher. Each subquestion addressed a number of factors that provided insight into the perceptions of study participants. These perceptions provide a snapshot of the level of effectiveness which characterizes one teacher education program regarding the development of well-prepared co-teachers. As a result of the study, several important ideas emerged. As a means to facilitate discussion of these major findings and the meaning inferred, each will be addressed in relation to its corresponding subquestion. However, the first two questions will be combined and so will the third and fourth questions.

What are the perceptions of general education teachers and special education teachers regarding teacher education program effectiveness in preparing them to co-teach?

Overall, responses indicate lots of graduates had some orientation to co-teaching. In general, the data suggest that general and special education teachers perceived the teacher education program as relatively effective in preparing them to co-teach. For example, nearly half of the respondents (43.8%) agreed that the teacher education program had addressed co-teaching. However, only about 35% of respondents agreed that they were prepared for their first co-teaching assignment. Additionally, roughly 40% of general and special educators indicated that they had observed faculty model co-teaching. Similarly, about 37% of the participants reported they received coaching on their co-teaching skills from faculty.

Since co-teaching is highly collaborative (Friend & Cook, 2010) and thus requires well-developed skills to be implemented effectively, it seems appropriate that preservice

teachers who are increasingly put in co-teaching situations would be prepared to do so in their teacher education program. This belief is supported by Weiss and Brigham (2000) who reviewed a series of studies spanning over 20 years of research from 1978-1999 on co-teaching efficacy. One of their most critical findings relevant to co-teaching as a collaborative practice emphasized that professionals often lack critical collaboration skills for effective implementation of practice.

The data suggest a lack of exposure to co-teaching preparation, field experiences, and subsequent skill attainment. These findings lead the researcher to believe that participants seem to have negative perceptions of the effectiveness of the teacher preparation program with regard to co-teaching. In other words, data from this section of the survey seem to suggest that participants perceived the teacher education program as not having addressed the topic of co-teaching extensively. Additionally, some participants perceived that the program did not prepare them to co-teach, while others perceived that they had been prepared to co-teach. Moreover, some respondents perceived that they had been well-prepared to co-teach. However, data from the rest of the survey had to be considered before making a final determination.

What are the experiences of general and special education teachers regarding co-teaching?

Three other key findings were that implementation of co-teaching practices varied among participants, as did experiences and satisfaction with this service delivery model. Data suggest that general education participants generally indicated 60-80% agreement with descriptions of an effective co-teaching partnership. The researcher considers these

items to be focused more on intangibles like communication and relationship issues. However, different responses were given for items that dealt more with parity or control. For example, general education teachers (42.9%) indicated they share grading responsibilities with their co-teaching partner. However, only about 30% of general education teachers agreed both co-teaching partners had their names on school documents like report cards and schedules. Similarly, about 38% of special education participants agreed that they and their co-teacher had both their names on the board. Yet, about 56% of general educators responded that they have equal classroom materials and equipment with their co-teaching partners. However, only 29% of special education participants provided similar ratings of agreement to having similar classroom materials to those of their co-teaching partners. This seems to infer that some aspects of co-teaching may appear less difficult to implement than others. Specifically, communication was perceived similarly by both groups of teachers.

Variation most often centered on parity, control and decision making. For example, over 80% of participants agreed with the descriptions common to effective co-teaching partners. General education teachers (58%) agreed that they share decision making with their co-teaching partner. Special educators (28%) indicated that they share equally in grading student work. Similarly, 28% reported having their name on the board and 29% indicated having equal materials and equipment. However, only 14% reported having their name on documents such as schedules and report cards.

These findings seem to suggest that parity issues exist regarding the sharing of power and authority between general and special education co-teachers. Although most

of the items were agreed upon by the majority of participants in both teacher groups, when it came down to sharing power and control in the classroom, the real authority often rested with the teacher of record, the general education teacher.

A fourth finding of the study was that key elements of the study, like the concerns regarding parity and the variation between implementation, experiences and satisfaction, mentioned in the previous sections are all consistent with the professional literature. Although the majority of the participants for this study were elementary educators, Kohler-Evans (2006), studied teachers from 15 urban and suburban districts around Seattle, Washington. General and special education teachers were interviewed and provided factual information as well as their personal opinions about co-teaching. One of the main findings of that study suggested placing greater value on the practice of parity. Parity includes the sharing of planning time, resources, equal responsibility for all students, and having both co-teachers' names prominently displayed in the classroom and on documents such as report cards and student work.

What knowledge and skills do early career teachers believe would have facilitated their co-teaching practice?

The final finding of the study was that the teacher education program needs to do more of what it is doing right. That is, the effective preparation for co-teaching that many graduates have received needs to be increased so that many more educators can enter the profession as competent collaborators and effective co-teachers. The last subquestion was addressed in Part 4, which consisted of four open response survey items. The researcher had hoped to collect a broad range of comments that would provide

deeper insights into the perceived effectiveness of the teacher education program in preparing its graduates for co-teaching.

The first question asked respondents to share any additional comments they had regarding co-teaching. In general, the respondents indicated that more direct preparation for co-teaching was needed. Specifically, data suggested that the provision of more course content and field experience related to co-teaching, and opportunities for preservice teachers to practice co-teaching would have helped them be more prepared to co-teach.

The second open response item asked participants to comment on successes and challenges related to their co-teaching experiences. Sharing ideas with another adult on student issues and providing shared instruction were cited as successes as was the sharing of classroom responsibilities. Challenges were associated with the need for shared planning time, problems with general educators sharing control and problems with special educators having limited content knowledge. Additionally, service delivery was a challenge due to scheduling problems.

The third question in Part 4 asked participants how their perceptions had changed about co-teaching since graduation. Some respondents indicated that since they had not gained an adequate understanding of co-teaching in the teacher education program, they felt they had no perception and thus no perception change had occurred. Additional comments emphasized the hard work involved with co-teaching and its value to students with disabilities and even their peers without disabilities.

The final question in Part 4 provided an opportunity for respondents to make

suggestions for improving instructional practices in K12 classrooms. The suggestions offered included the need for preservice teachers to observe more co-teaching and participate in more field experiences involving co-teaching. More course content on co-teaching was suggested, especially, that which explains and clarifies roles and expectations regarding the co-teaching partnership. Additionally, the concept of parity was emphasized as being important as a priority for co-teaching to be effective.

Overall, the qualitative data in Part 4 suggested that teacher education and professional development efforts should focus on addressing interpersonal skills, shared planning, and effective scheduling that supports collaborative practices such as co-teaching. What this means is that some professionals need to develop their communication and interpersonal skills to enhance their professional relationships. This also suggests that principals and their staff need help in navigating the scheduling shared planning process. Data also suggest the need for teacher education and schools to form partnerships to prepare students to co-teach. Participants mentioned potential benefit of having professionals visit college classrooms and student teachers observing effective co-teaching in schools. Finally, data suggest that more direct teacher preparation is needed to develop well prepared co-teachers. Further, effective teacher preparation would include course content and field experiences related to co-teaching.

The combined quantitative and qualitative data, and accompanying analyses suggest that overall, about half the participants of the study, both general and special educators considered themselves as being from somewhat to well-prepared to co-teach. On the other hand, the researcher believes the data indicate that roughly half the

participants would consider themselves more effective co-teachers had they been given the opportunity to have course content on co-teaching and field experiences related to co-teaching. Additionally, an emphasis on defining co-teaching and clarifying the roles and responsibilities of co-teachers was deemed a priority. These statements are supported by a study conducted by Van Laarhoven (2007). That study examined the differences between confidence levels of preservice teachers to work in inclusive classroom settings after some participated in intensive preparation compared to the control group who received traditional teacher preparation. The intensive preparation of the experimental group included hands on field experiences as well as instruction in working in a collaborative inclusive educational setting. The study's findings are similar to those in the current study, in that some participants perceived that the enhanced course and field experience gave them confidence to be more effective teachers, possessing collaboration skills to use in inclusive classrooms.

Current thinking on teacher education programs emphasizes the idea that in order to provide the most effective teacher education programs, faculty must commit themselves to modeling and teaching collaboration in a format that joins general education and special education teachers in teacher preparation programs (Tanner, 1997; Butz, Miller, and Butz, 2005).

Hudson and Glomb (1997), further this line of thinking by acknowledging the technical expertise in their areas of certification which both preservice general and special education teachers receive from their respective separate programs. They also emphasize the dire need for teacher preparation faculty to develop and deliver seamless

teacher education programs. Collaboratively rich programs where faculty from different departments and a variety of disciplines flow together are the best way to provide general education and special education majors with blended instruction in comprehensive collaboration skills training.

Clearly, no one course, program, or organization is not capable of bringing about the total transformation needed in the field of teacher education that facilitates the acquisition of knowledge and skills necessary for collaborative practices such as co-teaching. An interdisciplinary approach to teacher preparation is being employed by some in the field as the way to bring about this sorely needed transformation.

Conclusion

The goal of the *Teacher Education Program and Co-Teaching Survey* was to facilitate data collection that would, upon analysis, determine how well teachers are prepared to co-teach. Although elementary level participants with a bachelor's degree and three or less years of teaching experience made up the largest group of respondents, overall, the data indicate that teacher candidates could benefit from course content and field experiences that focus more on co-teaching knowledge and skills. Acquisition of such skills would enable teacher candidates to enter their first co-teaching assignments as collaboratively competent general and special educators who interact with students, families and other members of the school community to deliver effective instruction to all students.

In light of recent legislation and twenty-first century standards and continued reform efforts, collaboration has become a popular though misunderstood topic in school

circles. Similarly, co-teaching has become an increasingly favorite choice of schools seeking to promote a more collaborative school culture by initiating an inclusive practices program which often includes co-teaching. However, the current study contributed to the knowledge base that emphasizes the fact that many teachers are placed in co-teaching assignments without the benefit of adequate preservice preparation. In general, teachers are not receiving enough preparation to meet the challenges of today's diverse classroom needs. In order to fully address legislative mandates, incorporate new standards and meet the needs of all students, especially those with disabilities in general education classrooms, general and special educators must be given the necessary knowledge and skills to do so. Recommendations to accomplish this task include providing direct instruction in course contact on co-teaching and hands-on field experiences. A priority would be to provide preservice teachers with opportunities to observe faculty and co-teachers in the schools modeling co-teaching. Coaching by faculty and school professionals is also recommended.

The current study only involved participants from the teacher education program from one university in the southeastern region of the U.S., thus limiting generalization of the findings. Future research could involve multiple teacher education programs from within a single region and then from across several different regions. The participants in this study included both general and special educators. However, the number of special education teachers was extremely low, and thus additional research on the same topic with a more representative sample is desirable. Finally, this study did not directly address student achievement. Additionally, since general and special educators are not

the only specialists that may potentially participate in a co-teaching arrangement, it might be beneficial to include other school professionals in future studies on this topic. Moreover, specific research on the role of principals and other school administrators in conjunction with teacher education faculty would shed more insight on how to more effectively address the needs of educators new to co-teaching practices. This would also include investigating professional development needs and strategies for those already in the field.

The effectiveness of teacher preparation programs to prepare teachers to co-teach would be best determined in relation to the effect that preparation has on student achievement. Future research endeavors should continue focus on how the co-teaching practices enhance student outcomes for all students, particularly those with special learning needs.

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APPENDIX A

IRB APPROVAL NOTICE

From: IRB [mailto:irbcorre@uncg.edu]
Sent: Thursday, September 10, 2009 9:23 AM
To: m_friend@uncg.edu
Cc: ctshambe@uncg.edu
Subject: IRB Notice

To: Marilyn Friend
Specialized Education Services
212-A James S. Ferguson Bldg.

From: UNCG IRB

Date: 9/10/2009

RE: Notice of IRB Exemption
Exemption Category: 2.Survey, interview, public observation
Study #: 09-0309

Study Title: Teacher Education Program and Co-teaching Survey

This submission has been reviewed by the above IRB and was determined to be exempt from further review according to the regulatory category cited above under 45 CFR 46.101(b).

Study Description:

The purpose of this project is to determine the perceptions of general education teachers and special education teachers' experiences in their teacher education program. Teacher perceptions regarding their experiences in co-teaching will also be explored.

Investigator's Responsibilities

Please be aware that any changes to your protocol must be reviewed by the IRB prior to being implemented. The IRB will maintain records for this study for three years from the date of the original determination of exempt status.

CC: Cynthia Shamberger, Specialized Education Services

APPENDIX B

Teacher Education Program and Co-Teaching Survey

Consent Form for Participation in Research

Project Director: Marilyn Friend, Professor, University of North Carolina at Greensboro
Student Researcher: Cynthia Shamberger, M.Ed., University of North Carolina at Greensboro

Teachers new to the field of education often lack skills needed for effective co-teaching or other collaborations encountered within school settings. The purpose of this survey is to learn about the experiences of general and special education teachers in the teacher education program at UNCG in relation to co-teaching. The results of this survey may potentially be used to help improve teaching practices in P-12 classrooms.

Graduates from the Teachers Academy at UNCG between 2004-2009, having 1-5 years of teaching experience, are invited to complete a brief on-line survey using Survey Monkey. If you click on the button indicating agreement to participate, you will be connected to a web page. When you complete your responses, the data will be stored and then downloaded for analysis by Cynthia Shamberger, a doctoral student in the School of Education at UNCG, not individuals from any school system.

Three types of electronic data are part of the survey: (a) demographic information, (b) Likert-type data regarding perceptions of the teacher education program and their experiences in co-teaching, and (c) open response items for providing additional information you wish to share. The data gathered from the survey will serve as the basis for Ms. Shamberger's dissertation which has the potential to inform teacher education in ways that lead to improved practices in P-12 schools.

RISKS AND DISCOMFORTS

The survey will require approximately 20 minutes for completion, and risks overall are considered minimal. Risks identified include those associated with any type of on-line communication, including the potential that an unauthorized person or agency may gain illegal access to the data, the potential of sharing information that was not intended for public use, and the potential for identifiable information being shared. However, please note that any information that identifies individuals will be removed before it is included in the survey database.

POTENTIAL BENEFITS

Although there are no immediate, direct benefits to you as a participant, you will be contributing to your university's efforts to design the best education possible for its future teachers. Results from the survey will be shared with school of education leaders and other interested parties beginning in May, 2010. Indirect benefit may occur if the teacher education program makes improvements, resulting in graduates who are better prepared to work with a broad range of students, families, and related school professionals.

COMPENSATION

No direct compensation is offered for participation in this survey.

CONSENT

By clicking the "I agree" button below, you agree that you understand the procedures and any risks and benefits involved in this research. You may refuse to participate or withdraw your consent to participate in this research at any time without penalty or prejudice. That is, your participation is entirely voluntary. Your privacy will be protected because you will not be identified by name as a participant in this project. You are encouraged to print a copy of this informed consent information for your records.

The University of North Carolina at Greensboro Institutional Review Board, which ensures that research involving people follows federal regulations, has approved the research and this consent form. Questions regarding your rights as a participant in this project can be answered by calling Mr. Eric Allen at 336) 256-1482. Questions regarding the research itself will be answered by Ms. Cynthia Shamberger by e-mailing her at ctshambe@uncg.edu or calling (336) 334-9811.

Thank you for participating in this project.

- o I agree to participate in this survey.

SURVEY PURPOSE AND DIRECTIONS FOR COMPLETION

The purpose of this survey is to learn about the experiences of general and special education teachers in the teacher education program at UNCG in relation to co-teaching. The results of this survey may be used to help improve teacher education and ultimately teaching practices in P-12 classrooms. Your participation in this survey is voluntary.

Your responses will be kept strictly confidential, no identifiers will be used, and all responses will be presented as aggregate data.

DIRECTIONS

Thank you for participating in this survey. Please complete it by first checking the appropriate spaces regarding your current role, years in education, years of experience with co-teaching, and licensure status. Then check the response that most closely matches your opinions and experiences. Only complete this survey if you graduated from the Teachers Academy at UNCG and have been teaching for the last 5 years or less. If you are or were in a lateral entry program, do not complete the survey. If you are licensed in one area but have been assigned to teach in another, please indicate this in the space marked "Other" in Part One. Finally, space is provided at the end of the survey for you to write about your perception of your teacher preparation regarding co-teaching. Your input in this last section is especially appreciated because it can provide information not possible to capture in the other survey items.

Please read the following definitions related to co-teaching before starting the survey.

DEFINITION OF TERMS

Co-Teaching refers to a general education teacher and a special education teacher sharing responsibility for joint planning and delivery of instruction (and the resulting outcomes) to a heterogeneous group of students, including students with disabilities and other diverse needs in a single general curriculum setting.

Co-Teachers, as defined for the purposes of this study, are general and special education teachers who both provide substantive instruction to a heterogeneous class for one or more periods of instruction per day in the general curriculum setting.

General Education Teacher refers to any teacher certified to provide instruction in an elementary level classroom or a secondary level subject area.

Special Education Teacher refers to any teacher certified to provide instruction to any student in grades K-12 who is classified as having one or more disabilities.

TEACHER EDUCATION PROGRAM & CO-TEACHING SURVEY

Part One: Teacher Information.

Please indicate your response by clicking the answer button which best matches your perception.

1a. Are you currently teaching? (Your responses are welcome if you are not currently teaching but would like to complete the survey.)

- Yes
- No

1b. Number of years teaching (including this one).

- less than 1
- 1
- 2
- 3
- 4
- 5

2. HIGHEST level of education you have achieved.

- Bachelor's
- Master's

3. Gender

- Female
- Male

4. During my Teacher Education Program (TEP) I practiced co-teaching during

- field experience.
- student teaching.
- field experience and student teaching.
- neither field experience nor student teaching.

5. Number of years CO-TEACHING (including this one).

- I have never co-taught.
- Less than 1.
- 1
- 2
- 3
- 4
- 5

6. During the last 1-5 academic years, what grade level(s) have you co-taught? Check all that apply.

- Elem
- Mid/Jr.H
- H S
- I have never co-taught

7. During the 2008-2009 school year, how many classes did you co-teach in a day?

- 0
- 1
- 2
- 3
- 4
- More than 4.
- I have never co-taught.

8. Since graduating from UNCG, I have learned about co-teaching through (check all that apply)

- professional development.
- mentoring.
- web sites, blogs, wikis, etc.
- a graduate program.
- none of the above.
- Other (please specify) _____

(Answer item #9 OR item #10)

9. Current area(s) of Special Education certification.

- AU
- BED
- Deaf/HI
- LD
- VI
- Dual Certification
- Other (please specify) _____

10. Current area(s) of general education certification.

- Elementary K-5
- Middle 6-8
- Secondary 9-12
- Dual Certification
- Other (please specify) _____

11. I became a teacher through a lateral entry teacher education program.

- Yes
- No

12. Did your TEP address co-teaching?

- Yes
- No

PART Two: Perceptions of Teacher Education Program

Please indicate your level of agreement or disagreement with each statement below about your experience in the teacher education program. Please describe your initial teacher education program (TEP) experience.

1. I felt prepared to co-teach when I started in my first co-teaching assignment.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

2. My TEP faculty modeled effective co-teaching.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

3. I observed effective co-teaching partners in their classrooms during my field experience. (Here, field experience means internships, student teaching and any other work in schools during your TEP.)

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

4. I participated in co-teaching during my field experience.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

5. I received coaching from TEP faculty on my co-teaching skills during my field experience.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

6. I received coaching from the cooperating teacher on my co-teaching skills during my field experience.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

7. My TEP prepared me to deliver instruction using a variety of co-teaching approaches.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

8. My TEP prepared me to meet the needs of students with disabilities in the general curriculum classroom.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

9. My TEP prepared me to provide accommodations for students with special needs in the general curriculum classroom.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

10. How did you enter co-teaching?

- Volunteered
- Condition of the job

PART Three: Perceptions of Co-Teaching Experience

Please indicate your level of agreement or disagreement with each statement below about your co-teaching experience. IF YOU HAVE NOT CO-TAUGHT, YOU MAY SKIP THIS SECTION.

MY CO-TEACHER AND I:

1. Have a regularly set time for joint planning.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

2. Share our expert knowledge and skills with each other.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

3. Communicate with each other during the lesson to facilitate student learning.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

4. Solicit each other's feedback.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

5. Acknowledge our weaknesses to each other.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

6. Seek assistance from each other.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

7. Use effective communication skills (e.g., vocal cues, listening, nonverbal cues)

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

8. Are committed to strengthening our professional relationship.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

9. Have equal decision-making power.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

10. Take turns talking during the delivery of instruction.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

11. Work with all students with and without disabilities.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

12. Participate equally in grading student assignments.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

13. Share classroom responsibilities (e. g., parent communications, discipline issues, etc.)

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

4. Have both our names on schedules and report cards.

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

15. Have both our names on the board.

    - Strongly Agree
    - Agree
    - Neutral
    - Disagree
    - Strongly Disagree
    - N/A

16. Have similar classroom materials and equipment such as desks and chairs.

    - Strongly Agree
    - Agree
    - Neutral
    - Disagree
    - Strongly Disagree
    - N/A

PART FOUR: Additional Comments (Based on your experiences overall)

IF YOU HAVE NOT CO-TAUGHT, YOU MAY SKIP THIS SECTION.

1. What other comments do you have regarding your teacher education program in relation to your level of preparedness to co-teach?
2. What successes and/or challenges have you experienced in co-teaching?
3. How have your perceptions of co-teaching changed since graduation?
4. In relation to co-teaching, what suggestions would you make to help improve instructional practices in P-12 classrooms?

THANK YOU AGAIN FOR PARTICIPATING IN THIS SURVEY!

APPENDIX C

Survey Correspondence

On Mon, Nov 9, 2009 at 4:01 PM, The University of North Carolina at Greensboro Alumni Association <alumni@uncg.edu> wrote:

Dear UNCG Colleague,

I am a current doctoral student at the University of North Carolina at Greensboro. As a recent graduate of The Teachers Academy at UNCG, you have been selected to participate in an on-line survey. The survey is designed to explore teacher perceptions of the teacher education program at UNCG. Your participation will potentially provide valuable information for improving the teacher education program for future teacher candidates.

If you choose to participate in this on-line survey, a link to the survey is provided at the end of this email. Clicking on the link below will take you to an on-line consent form. There will be a button to click on to indicate your agreement to participate in the survey. Directions for completing the survey will follow the on-line consent form. Please note that because this is a research study, there are formal required statements that are made prior to the survey.

After completing the survey, YOU have an opportunity to participate in an educational drawing for a $100 first prize or one of three additional prizes- CO-TEACH handbooks. YOU may enter the drawing through a separate link that will be provided when the survey is finished. The link for the drawing and the link for the survey are not connected in any way so as to ensure your confidentiality. Thank you in advance for your participation in this survey. Best wishes to YOU for the drawing after the survey period is over!

Best wishes in your career!

Cynthia Shamberger
Click here to take the survey.

***** SAMPLE *** Your completed survey helps future teachers**

The University of North Carolina at Greensboro Alumni Association

Dear UNCG Colleague,

I am a current doctoral student at the University of North Carolina at Greensboro. As a recent graduate of The Teachers Academy at UNCG, you have been selected to participate in an on-line survey. The survey is designed to explore teacher perceptions of the teacher education program at UNCG. Your participation will potentially provide valuable information for improving the teacher education program for future teacher candidates.

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Best wishes in your career!

Cynthia Shamberger
Click here to take the survey.

***** SAMPLE *** Inspire change. Complete the survey.**

The University of North Carolina at Greensboro Alumni Association

Dear UNCG Colleague,

I am a current doctoral student at the University of North Carolina at Greensboro. As a recent graduate of The Teachers Academy at UNCG, you have been selected to participate in an on-line survey. The survey is designed to explore teacher perceptions of the teacher education program at UNCG. Your participation will potentially provide valuable information for improving the teacher education program for future teacher candidates.

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Best wishes in your career!

Cynthia Shamberger
Click here to take the survey.

Text of Reminder Post Card

IMPACT THE FUTURE!

Dear Fellow Teacher,

You're invited to complete a brief online survey on how well the teacher education program at UNCG addresses school collaboration and co-teaching. If you have already completed the online survey, thank you!

If you haven't completed the survey yet, please consider doing so now. After the survey, you may enter a drawing, via a separate link, for **$100.00 (1st prize)** or **one of three *second prize* books, *Co-Teach!*.**

General Education Teachers, Special Education Teachers, and Secondary Education Teachers are needed to respond in the next 2 weeks. The data will be used in my dissertation and may potentially impact future decision-making in teacher education.

To access the survey, type the address below into your URL and click. It is completely anonymous and confidential. Questions? Please send me an email.

THANKS FOR TAKING THE TIME TO HELP A FELLOW TEACHER!

Cynthia T. Shamberger (ctshambe@uncg.edu)

https://www.surveymonkey.com/s/WT6MCFB

IMPACT THE FUTURE!

Cynthia Shamberger

Dear Fellow Teacher,

You're invited to complete a brief online survey on how well the teacher education program at UNCG prepared you for school collaboration and co-teaching. If you have already completed the online survey, thank you! If you haven't completed the survey yet, please consider doing so now. After the survey, you may enter a drawing, via a separate link, for **$100.00 (1st prize)** or **one of three *second prize* books, *Co-Teach!*.**

General Education, Special Education, and Secondary Education Teachers are needed to respond in the next 2 weeks. The data will be summarized and used in my dissertation, which may potentially help in future decision-making in teacher education. To access the survey, click or cut and paste the address below into your URL. It is completely anonymous and confidential.

https://www.surveymonkey.com/s/WT6MCFB

Thank you,

Cynthia

--

Cynthia Thrasher Shamberger
Ph.D. Candidate
Graduate Assistant
Specialized Education Services
315 Ferguson Building
University of North Carolina at Greensboro
(336) 334-9811
ctshambe@uncg.edu

Teacher Education Survey

Cynthia Shamberger

Dear Fellow Teacher,

You're invited to complete a brief online survey on how well the teacher education program at UNCG prepared you for school collaboration and co-teaching. If you have already completed the online survey, thank you! If you haven't completed the survey yet, please consider doing so now. After the survey, you may enter a drawing, via a separate link, for **$100.00 (1st prize)** or **one of three *second prize* books, *Co-Teach!*.**

General Education, Special Education, and Secondary Education Teachers are needed to respond in the next 2 weeks. The data will be summarized and used in my dissertation, which may potentially help in future decision-making in teacher education. To access the survey, click or cut and paste the address below into your URL. It is completely anonymous and confidential.

https://www.surveymonkey.com/s/WT6MCFB

Thank you,

Cynthia

--

Cynthia Thrasher Shamberger
Ph.D. Candidate
Graduate Assistant
Specialized Education Services
315 Ferguson Building
University of North Carolina at Greensboro
(336) 334-9811
ctshambe@uncg.edu

APPENDIX D

Incentives Drawing Survey

1. Thank you for completing the survey! To enter the drawing please fill in the information requested below so that you may be contacted if your name is randomly drawn. There will be one first prize - $100, and three second prizes - a Co-Teach! manual.

Name: -
Address: -
City/Town: -
State: -
ZIP/Postal Code: -
Email Address: -
Phone Number: -