Co-Teaching: To what Extent does it Change Teachers' Perceived Efficacy in the

Instruction of Students with Disabilities in a General Education Classroom?

by

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Dedication

This is dedicated to the hundreds of people with disabilities that I have shared time with over the many years of my career. It seems that the lessons that have been the most valuable to me I did not learn in school.

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Trust in the Lord with all your heart, and do not lean on your own understanding.

Proverbs, 3:5

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Abstract

This mixed method research investigates the extent of change in general and special education teachers' perceived efficacy after co-teaching. The social cognitive theory of self-efficacy guides this study, which approaches teachers' perceptions as an indicator of one's ability to change or persist in behaviors, such as teaching. Using a quantitative and qualitative sequential design, this study uses survey methodology and small-scale follow-up interviews.

The integrated findings illuminate the perceptions of teachers before and after co-teaching. The main conclusions are discussed with regard to existing literature on co-teaching. Overall, results indicate that there is an increase in teachers' perception of their ability to instruct students with disabilities within the general education classroom after co-teaching. It appears that co-teaching may play a role in their ability to provide the appropriate instruction to students with disabilities in the general education classroom. In addition, this study concludes that although teachers perceive they are allotted more planning time as they co-teach, the lack of quality time may be negatively impacting the role of special educators in the co-taught classroom.

Chapter 1 - Introduction

Students with disabilities have a variety of needs due to physical, cognitive, or emotional impairments. These needs are met in the school setting by individualized programs most commonly called special education. "Special education involves delivering and monitoring a specially designed and coordinated set of comprehensive, researched based instructional and assessment practices and related services to students with learning, behavioral, physical or sensory disabilities" (Salend, 2008, p. 5). There is no official special education classification system that is used uniformly across states so differences between the states are apparent in many disabilities (Reschly, 1996); however in general, students are classified by their primary disability, of which there are ten briefly defined in the federal IDEA regulations. They are: autism, hearing impairment (including deafness), mental retardation, orthopedic impairment, other health impairment, serious emotional disturbance, learning disability, speech or language impairment, traumatic brain injury and visual impairment (including blindness) (IDEA 2000). Students with disabilities are a diverse group (Salend, 2008). Some students have sensory or physical impairments that interfere with their learning. Others have behaviors that obstruct their learning. Finally, some children may have difficulty learning. However, all students can learn but will need instruction focused on their individual needs (Lewis & Doorlag, 2011). Students with disabilities, though impossible to generalize, usually require instructional and curricular accommodations and adaptations in order to be successful (van Hover & Yeager, 2003).

Each disability has its own unique needs. The term learning disability refers to a neurobiological disorder that affects how one's brain works. This may affect the students'

ability to speak, listen, read, write, spell, reason, organize information, or do mathematics (Lerner, 2003). Students with a learning disability have intelligence within the average range but because of specific disabilities in areas such as perception or memory they experience difficulty in school.

Students with behavioral disorders also may experience learning, behavioral and motivational difficulties that cause them to underachieve in reading and math as well as other content areas. Their behavior may impede their learning as well as that of their classmates. Depending upon the severity of the student's disability the needs of instruction vary. They may require a more restrictive environment that is found in a small special education classroom, or they may learn well with their peers in a general education classroom with the assistance of both a special and general educator (Salend, 2008).

The category of physical and other health impairments are comprised of a diverse group with varied disabilities. Due to the many circumstances within this grouping, conditions change greatly. Included are those with a physical disability, a serious illness, a traumatic brain injury (TBI) or an attention disorder. Students with a traumatic brain injury have had a serious head injury. They may experience difficulty with learning tasks and often do not anticipate the socio-emotional consequences that may accompany this disorder (Lewis & Doorlag, 2011). Those students with attention deficit disorders are characterized by their difficulty focusing and maintaining attention to classroom directions and information. This may negatively affect their school performance (Mastropieri & Scruggs, 1993). Students with attention deficit disorders often display a persistent pattern of impulsivity or hyperactivity that occurs for at least six months and is evident before the age of seven. Those diagnosed with an attention disorder or

physical disabilities are often educated in the general education classroom, and require individualized interventions to assist them to be successful in school (Lewis & Doorlag, 2011).

Students with a cognitive impairment demonstrate a significantly below average level of intellectual functioning. They also display deficits in adaptive behavior that affects their educational performance as well as their daily life (Salend, 2008). Depending upon the students' level of impairment their rate of learning varies widely and will determine the appropriate educational placement required. Students with cognitive impairments can be found in general education classrooms as well as special education classrooms (Salend, 2008).

A speech and language impairment is a communication disorder. It may be observed as a receptive or expressive speech difficulty that impedes a student's ability to receive, understand or express verbal messages in the classroom. A language disability may impair one's ability to understand and communicate meaning (Mastropieri & Scruggs, 1993). Due to reluctance to participate in verbal activities the disability can impair both academic and social development in a student with a speech and language impairment. Most students with this disorder receive instruction in the general education classroom with modifications and support from both the general and special education teacher or speech pathologist (Salend, 2008).

The students for which a disability negatively impacts their progress in school receive special education services in addition to those provided by the general educational program (Lewis & Doorlag, 2011). These services range from a full time placement in the general education classroom with consultation by a special educator, to the majority of the student's day in a special education classroom. This is referred to as a continuum of services (Deno, 1970).

Although the use of a continuum of services has continued, the education of students with disabilities has changed over the years. Most recently the public schools have been called upon

to instruct them with their nondisabled peers (Yell, 1995, U.S. Department of Education, 2004).

In recent legislation, the U.S Department of Education's IDEA, "requires each public agency to

ensure that, to the maximum extent appropriate, children with disabilities are educated with

children who are not disabled" (300.114, U.S. Department of Education, 2004). School districts

are interpreting this mandate in many ways (Nichols, Dowdy, & Nichols, 2010; Kohler-Evans,

2006; Titone, 2005). In some districts students with disabilities are placed full time in general

education classrooms, often referred to as inclusion. In other districts students are placed for a

small portion of their day with their general education peers, such as a physical education class.

More school districts are adopting co-teaching as a method of instruction both to fulfill

the IDEA 2004 legislation and provide an appropriate education to students with disabilities

(Magiera, Smith, Zigmond, & Gebauer, 2005). The students with disabilities are placed in a

general education classroom; both a special and general education teacher is assigned to the

classroom in which they are responsible for the instruction of the classroom as a whole,

including the students with disabilities (Friend, Cook, Hurley-Chamberlain, & Shamberger,

2010). Co-teaching is an instructional method that facilitates the inclusion of students with

disabilities in a general education classroom.

Inclusion is difficult to define because it "means different things to people who wish

different things from it" (Fuchs & Fuchs, 1994, p. 299). The inclusion classroom contains a

diverse group of students displaying a varying array of cognitive abilities, behavior issues,

language skills and learning styles (Scott, Vitale, & Masten, 1998). The changing demographics

of the United States are reflected in the classroom, "with more students demonstrating critical

individual needs" (Fuchs, Fuchs, & Bishop, 1992). This creates challenges to classroom teachers

as they work to meet the needs of their students (Friend et al., 2010; Van Reusen, Shoho, &

Barker, 2000). Teachers must adapt lessons by evaluating the effectiveness of previous lessons and considering the needs of individuals and the class as a whole (Fuchs, Fuchs, & Bishop, 1992).

As co-teaching has become a prevalent method of providing instruction to students with disabilities in general education classrooms (Friend et al., 2010; Gurgur & Uzuner, 2010; Mastropieri et al., 2005; Austin, 2001), the beliefs of both general and special educators' efficacy to adequately instruct students with disabilities within those classrooms merits additional investigation. Participants perceptions are "worthy of consideration when educators decide which interventions or instructional approaches to use" (McDuffie & Scruggs, 2008, p. 96).

Self-efficacy sprang from the social cognitive theory and was developed by Bandura in 1977 (Henson, 2001). Perceived self-efficacy is defined as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (Bandura, 1994, p. 1). The beliefs that people have about themselves are the key components by which people conduct themselves through various situations in life (Pajares, 1997). "Self-efficacy is very domain specific" (McCormick & Ayres, 2008, p. 465). An example of this is a language arts teacher who has a high self-efficacy for the instruction of reading comprehension but has a lower self-efficacy for teaching writing composition. The theory predicts that the teacher with a high self-efficacy in the teaching of reading comprehension will approach that subject positively and maintain their drive despite difficulties (Bandura, 1994).

Purpose of Study

The purpose of this research is to reveal general and special education teachers' perceived efficacy in the instruction of students with disabilities within a general education classroom before and after co-teaching. For this study co-teaching will be defined as described by Austin (2001) as a general and special education teacher instructing in one classroom to a heterogeneous group of students in which some amount of co-planning was done prior to instruction.

Research Questions

Two general research questions are posed in this study:

1. To what extent does co-teaching with a general education teacher change special education teachers' perceived efficacy to teach students with disabilities in the general education classroom?

2. To what extent does co-teaching with a special education teacher change general education teachers' perceived efficacy to teach students with disabilities in the general education classroom?

Chapter 2 - Literature Review

Needs of Students with Disabilities

Within a school setting the main purposes of the identification of the types of disabilities are to establish whether students are eligible for services and to determine what the services will be for each student. It is generally acknowledged that students with severe disabilities need additional educational supports as compared to their nondisabled peers (Lewis & Doorlag, 2011). These supports are observed in two main areas. The first is in the individualization of instruction and the second is a high level of teacher attention (Logan & Malone, 1998).

With the emphasis on providing service in the least restrictive environment (LRE) and instruction within the general education classroom, the needs of students with disabilities in the general education classrooms have been a focus of researchers (Scruggs, Mastropieri, & McDuffie, 2007). Carpenter and Dyal (2007) discussed that even with extra support students with disabilities may not receive an appropriate education within a general education classroom. Students with disabilities generally require instructional and curricular accommodations individualized to the student in order to be successful in school (van Hover & Yeager, 2003).

Learning Disabilities

The number of children and youth ages 3 - 21 receiving special education services was 6.5 million in 2009 - 2010, or about 13 percent of all public school students. Of those, the largest category is the 38 percent receiving special education services for a specific learning disability (National Center for Educational Statistics [NCES], 2012). Eighty-two percent of secondary students with learning disabilities are in general education classrooms for at least a

portion of their day. The numbers of students with learning disabilities are an "estimat[ed] range from 1 to 30 percent of the school population, with about 5 percent receiving services in the schools" (Lerner, 2003, p. 23).

"A learning disability is a disorder in one or more of the basic psychological processes involved in understanding or using spoken or written language which may appear as an impaired ability to listen, think, speak, read, write, spell or do mathematical calculations" (Salend, 2008, p. 68). Students with a learning disability generally demonstrate difficulty in one or more of the basic school subjects such as math or reading. This often leads to an inability to acquire skills equal to their peers and therefore achieve poorly in school due to the deficits. In addition, students with a learning disability may demonstrate difficulty in social skills and fine or gross motor skills (Lewis & Doorlag, 2011).

These challenges may play a role often observed in students with disabilities. The students are included in the general education classrooms but they are not actively engaged in the learning process (McIntosh, Vaughn, Schumm, Haager, & Lee, 1993). Lerner (2008) terms them "passive learners. They do not know how to control and direct their thinking in order to learn, how to gain more knowledge or how to remember what they have learned" (p. 212). Another aspect to students with a learning disability may be seen in poor learning strategies. This ability to plan, execute, and complete assignments are often less effective with some students, leading to frustration and lower grades (Lewis & Doorlag, 2011). Using data collected during the 2000-2001 school year, the National Longitudinal Transition Study-2 (NLTS2) found that the classroom participation of students with learning disabilities differed from their general education classmates in a variety of manners. One example found that teachers reported only 37 percent of students with learning disabilities responded to oral questions as compared to their

general education peers in which 66 percent responded (Newman, 2006). However, beyond the classroom discussions lie further areas of challenges.

Social and behavioral difficulties are also seen in some students with learning disabilities. They may demonstrate poor self-concept, low motivation, frustration or anxiety (Salend, 2008). The poor self-concept may come from years of failure and frustration. By the time a student reaches the secondary level the low motivation can come from the multiple times they have begun to doubt their abilities. They believe their efforts to learn or attempt a problem are pointless. These problems may lead to others. For example, difficulties in social skills are observed in a student's hindrance to making and keeping friends (Lerner, 2003). These behaviors lead to challenges within the classroom as well and can lead to not only difficulties within the classroom but eventually giving up on school completely and dropping out.

The school dropout rate for students with a disability is twice that of general education students and of those 36 percent are those with a learning disability (Blackorby & Wagner, 1996). This is most unfortunate due to the benefits to finishing school such as improved employment opportunities and higher future earnings. "Those who stay in school and graduate fare much better than those who leave" (Lerner, 2003, p. 294). One of the drastic results of dropping out can be trouble with the law. The arrest rate for students with a disability who drop out of school is 62 percent (Thurlow, Sinclair, & Johnson, 2002). Those with a learning disability are not the only students with challenges in school.

Intellectual Disability

Students with an intellectual disability (also referred to as cognitive disability, cognitive impairment or mental retardation) constitute 1 percent of the 13 percent of students with disabilities (NCES, 2012). The definition for intellectual disability under IDEA is those with

"significantly subaverage general intellectual functioning, existing concurrently with deficits in adaptive behavior and manifested during the developmental period, that adversely affects a child's educational performance" (U.S. Department of Education, 2004, 34 CFR 300.8 (c) (6)). Those with an intellectual disability have traditionally been classified into one of three categories: mild, moderate or severe (Salend, 2008).

Students that have an IQ that tested above 50 and below 70 are in the mild category. Those within the mild category are expected to eventually live independently or semi-independently and hold jobs within the community (Bouck, 2004). They require some support to be successful in school but also may be instructed in the general education classroom (Lewis & Doorlag, 2011).

Those within the moderate category have IQ scores that range between 30 and 50. These students need consistent and ongoing support through school and beyond. Their education focuses on communication, vocational and daily living skills. Those with IQs below 30 are considered severely impaired. The instruction centers on communication, independent living skills and participation in society. While some of the students with moderate or severe intellectual disabilities may spend time in a special education classroom, depending upon the needs of the student, they may also attend general education classes (Salend, 2008).

The needs of those with moderate or severe disabilities tend to be more complex in comparison than those of students with mild disabilities. Compounding the intellectual disabilities may be additional physical or emotional impairments (Lewis & Doorlag, 2011); requiring assistance from others throughout their lives (Bouck, 2004). In the past the "differences in expected outcomes require[d] significant differences in educational programming..." (Bouck, 2004, p. 368) however, with the legislation of IDEA (2004) that called for the inclusion of all

students with disabilities to be educated with their nondisabled peers to the greatest extent possible, advocates have called for those with moderate and severe disabilities to also be included in general education classrooms (Lewis & Doorlag, 2011). When this occurs it is the general education teacher who is responsible for the student's learning with the support of the special education team. The instructors may design content for the student that is community-based, allowing them to learn in the natural setting where they live. They may also break down instructional goals into discrete tasks so the student will learn step-by-step. Just as importantly they may work with the student to assist in socializing with others (Salend, 2008).

Students with both intellectual and learning disabilities often fall behind their peers as they advance from elementary to secondary school (Mastropieri et al., 2006). There is frequently a disparity between the curriculum and the needs of students with disabilities which may be magnified in the extensive reading and content heavy secondary courses (Magiera, Smith, Zigmond, & Gebauer, 2005). The general and special educators must work to minimize frustration and create a curriculum that is appropriate while working towards the goals of each student (Bouck, 2004). This objective is not only true for students with learning disabilities but for other disabilities such as those with a speech or language disorder.

Speech and Language Disorder

Twenty-two percent of students receiving special education services do so because of a speech and language disorder, the second largest category of students receiving services (NCES, 2012). It is "a communication disorder such as stuttering, impaired articulation, language impairment or a voice impairment that adversely affects educational performance" (Salend, 2008, p. 78). Students may fail to understand the speech of others such as their teachers or peers and they may have trouble expressing their own thoughts in words. Each of these

communication problems may affect their academic and social performance (Lewis & Doorlag, 2011).

The most common communication disorder seen in the early grades is articulation difficulty. Articulation disorders are motoric difficulties which result in omissions, substitutions, distortions and additions. These generally do not greatly impact intelligibility and are often resolved in six months to two years (Salend, 2008).

In the upper grades issues with expressive or receptive language are sometimes noted. These may persist throughout the elementary and secondary years. An untreated language deficit may reduce a student's ability to communicate effectively (Lerner, 2003). As students mature the language deficits may impact their social life. Due to the daily use of communication a disability in this area can impact students' ability to make and keep friends.

Oral language (listening and speaking), reading and writing are strongly connected (Lewis & Doorlag, 2011). As a student grows older many areas of learning depend upon the mastery of oral language and their ability to use written language. It also "plays an increasingly important part on the development of the thinking processes and the ability to grasp abstract concepts" (Lerner, 2003, p. 352).

The general education classroom is the most common placement for students with a speech and language disorder. In 2009-2010 eighty-six percent of students with this disorder spent most of their day there (NCES, 2012). These students may require instruction from the speech-language pathologist who takes the primary responsibility for instruction in the areas of listening skills, vocabulary and oral expression. The general education teacher adds further training by modeling appropriate grammar, vocabulary instruction and being cognizant of the

needs of students in the classroom (Lewis & Doorlag, 2011). Other students in the same classroom may have different needs such as a student with a behavioral or emotional disorder.

Behavior Disorder

Students with behavior disorders display actions that are inappropriate to the school setting. This category represents six percent of all students with disabilities (NCES, 2012). "Students with a behavior disorder exhibit one or more of the following to a marked degree, over a long period of time and negatively affects their educational performance:

- Inability to learn that cannot be explained by intellectual, sensory or health factors

- Inability to build or maintain good relationships with peers and teachers

- Inappropriate behaviors or feelings under normal circumstances

- A general, pervasive mood of unhappiness or depression

- A tendency to develop physical symptoms or fears associated with personal or school problems" (Salend, 2008, p. 70).

Students with behavior disorders are sometimes disruptive to the class. They may be aggressive or withdrawn; the range of behavior disorders is vast. Students may have severe emotional disturbances such as psychotic behavior or schizophrenia. These students may be provided special education services in a setting other than the general education classroom so that more intensive support can be rendered. In general students with behavioral disorders are served in more restrictive settings than other students with disabilities (Sitlington & Neubert, 2004) but many are also served in general education classrooms (NCES, 2012).

Children with behavior disorders who have milder issues can often be provided extra support within the general education classroom by the general and special education staff. In the classroom, students may have a difficult time establishing relationships with peers and staff.

Furthermore, they may also experience difficulty with basic skills such as reading or writing.

This may be due to many factors but this requires additional support to be successful in school

(Lewis & Doorlag, 2011). Other students who may require extra support of the special education

department are those with autism.

Autism

"With a nationwide emphasis on the inclusion of students with special needs in general

education classroom, general education teachers are more likely than ever to be faced with the

task of including students with [autism spectrum disorders] ASDs in their classrooms" (Leach &

Duffy, 2009, p. 31). ASD covers a broad spectrum of cognitive and neurobehavioral conditions

that typically include communication and socialization disorders and often include repetitive

patterns of behavior (Salend, 2008).

A student with autism may have social interaction impairments and repetitive thoughts or

actions but no communication disorder. This student may be diagnosed with a type of autism

called Aspergers syndrome. Their intellectual functioning is generally average to above average.

However, these students have a difficult time with social relationships so friendships,

interactions with teachers and even family may be challenging (Lewis & Doorlag, 2011).

Students with autism are often a challenge to teachers. Due to their disability they appear

uninterested in interacting with others either socially or academically. Robertson, Chamberlain

and Kasari's (2003) study examined the perceived relationship between general education

teachers and elementary students with autism in their classrooms. They found that teachers

reported generally positive relationships with their students with autism but that a higher level of

behavior problems of a child reduced the quality of the teacher-student relationship. In turn that

quality of relationship played an overall role in the student's peer status in the room and their role of social inclusion.

Teaching students with ASD demands the use of specific strategies and approaches (Leach & Duffy, 2009). General education teachers need the support and training of special educators to meet the needs of these students (Salend, 2008). One strategy that may require additional training often used with students with autism is Positive Behavior Interventions and Supports (PBS) (Turnbull III, Wilcox, & Stowe, 2002). This technique uses positive behavioral interventions, supporting desirable behavior and encouraging the appropriate behavior from the student. Not only students with autism find the PBS strategy helpful but those with physical and other health impairments do also.

Physical and Other Health Impairments

Students with physical and other health impairments are a heterogeneous group with varied disabilities. Due to the many circumstances within this category conditions vary greatly. Eleven percent of students with disabilities are included in this category (NCES, 2012). Students with physical or other health impairments tend to have average intelligence and have many educational, social, and health care needs (Salend, 2008). Examples of conditions in which students may qualify for special education include paralysis, cerebral palsy, asthma, diabetes, cerebral palsy, traumatic brain injury, and attention deficit disorder. Some disorders make a significant impact in a student's academic career; others do not. Most students with physical and health impairments spend the majority of the day in a general education classroom. They may receive services and support from the special education staff (Lewis & Doorlag, 2011). Depending upon the needs of the student it may be necessary to adapt the curriculum or classroom to allow full participation. Some adaptations for physically impaired students might

include their paper taped to the desk so it can't move when they write or a higher desk so a wheelchair can fit underneath it. It might also be appropriate to provide a copy of the teacher's notes for students who write slowly. For those students with an attentional disability, frequent breaks to walk around might be appropriate or a standing desk where they can do their work while upright (Salend, 2008). Those students with a traumatic brain injury may require additional support from the teacher and staff. Supports might include providing repetition and consistency, demonstrating new tasks, teaching compensatory strategies for increasing memory and an environment which is as distraction free as possible (Lewis & Doorlag, 2011). Students with a physical or other health impairment may also be absent frequently. The absences also may create challenges for the students as they attempt to keep up with their peers. A modification in curriculum may be necessary, or a plan to send work home may be required.

When a student with physical or health impairment is placed in a general education classroom the general education teacher must often collaborate with other staff. The special education teacher may be one key team member but also included might be paraprofessionals to work daily with the student, an occupational or physical therapist, nurse or social worker at various times. The use of assistive and instructional technology may also be an important aspect of the student's academic day (Salend, 2008). Technologies can assist students in learning, accessing information and communicating. All these issues must be managed and integrated into daily lessons by the teacher (Lewis & Doorlag, 2011).

Hearing and Visual Impairment

Also found in classrooms are students with sensory losses such as hearing or visual impairments. These can range from severe to mild and their impact can be greater or lesser depending upon the severity of the disability. Generally, students with these impairments have

school achievement that is below that of their similar aged peers (Mastropieri & Scruggs, 1993).

Students with visual impairments have difficulty with visual materials and mobility. There is a

great deal of variability in these areas depending upon the age at which sight was lost. Those

with a hearing impairment experience problems in language development and oral

communication (Salend, 2008). Due to this written work may appear disorganized or lack proper

construction. Reading achievement also lags though progress can be made through intensive and

systematic instruction (Lewis & Doorlag, 2011). With all the complexities found in the

instruction of students with disabilities the placement in which they receive services varies.

Service Delivery Models

Services within the special education field have been characterized by a range of

offerings commonly referred to as a continuum, earliest identified by Deno in 1970. It is a

system that is driven by the needs of the student rather than the availability of specific programs

within a school district. Deno described "it [as] a system which facilitates tailoring of treatment

to individual needs rather than a system for sorting out children so they will fit conditions

designed according to group standards…" (1970, p. 235). There are seven levels in the

continuum that were identified by Deno and further detailed by Saland most recently in 2008.

Levels one through three are the least restrictive. Level one is the general education

classroom with few or no supportive services. The student is educated in the classroom with the

general education teacher having the primary responsibility for instruction. Indirect special

education services may be offered to the general education teacher through consultation. Level

two is a placement in a general education classroom with special education services within the

classroom but the student is in general education classes the entire day. General and special

educators work collaboratively to meet student needs. This is one level in which co-teaching

may be observed. Co-teaching may occur for any single student across more than one academic area (Friend et al., 2010). Level three is when a special education student is placed in a general education classroom for part of the day and a special education classroom for the remainder of the day. This is another level in which a student might have co-teachers within the general education classroom.

The levels four through seven are considered the most restrictive. Level four is one in which a student with a disability is in a special education classroom for the majority of the day. The special education teacher has the responsibility to provide instruction to students. Students may be enrolled in a general education class such as physical education with their peers also. Level five is where students with disabilities attend a separate day school. This allows schools to centralize services and focus on students with more severe emotional, cognitive or physical disabilities. Level six's homebound or hospital instruction is designed for students unable to attend public school. This often includes students who are medically fragile, experiencing severe emotional crisis or have been suspended from school but special education services must continue. Level seven is termed non-educational services which include medical and welfare care. In the 1970's Deno described this level as in-patient programs in which "assignment of children to facilities [is] governed by health or welfare agencies" (p. 235).

This continuum of service's organizational model is a tapered design which illustrates the considerable difference in the numbers of students involved at the different levels (Figure 1). The fewest number of children are served in the most specialized facilities. This is demonstrated in most recent legislation IDEA 2004 which stipulates, "to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, [be] educated with children who are not disabled, and regular educational environment

[occur] only when the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily" (IDEA 2004). With this in mind the emphasis is now on the assumption that students are placed in a level one or two setting and justification as to why they are not is required (Drasgow, Yell, & Robinson, 2001).

The continuum of services - from full time special education classroom to full time general education services - has historically been the standard of special education services (Fuchs & Fuchs, 1994). "There is no magic in the place itself but the choice in structures, and consequently the placement flexibility can provide a functional advantage of special education in comparison with general education" (Anastasiou & Kauffman, 2011, p. 379). As part of the continuum of service, inclusive placements gradually became accepted during the 1980's with the realization that special education could form partnerships with general education (Friend et al., 2010). Current policy frameworks suggest that all students be educated in inclusive settings (Amendments to the Individuals with Disabilities Education Act, 2004). This has led to the emphasis on including students with disabilities in general education classrooms; from this the term inclusion has emerged.

Figure 1

Continuum of Special Education Services

Most Restrictive Services

Degree of Educational Need

Least Restrictive Services

Non-Educational

Residential or Hospital

Special Education Day School

Special Education Full Time

General Education Part Time + Special Education   **Co-Teaching**

General Education Classroom Full Time + Special Education   **Co-Teaching**

General Education Classroom Full Time   **Co-Teaching**

Number of Students

Inclusion

Inclusion is based on a belief that all students, including those with disabilities should be considered as members of the learning community (Friend, et al., 2010). The expression is used to refer to the integration of students with disabilities into the general education community and to include students with "disabilities fully into the 'mainstream' of education" (Yell, 1995, p. 389). This may be the participation of a student with a severe mental impairment in a general classroom for two hours a day and the remaining time in a special education classroom. It also may be a student with a moderate learning disability in a general education classroom for their entire day with the support of the special education department in the classroom. In 2009-2010 about 95 percent of school-age children with disabilities were enrolled in regular schools. Eighty percent spent most of their day in general, or inclusion classrooms (NCES, 2012). As such, teachers are challenged to provide instruction to students with a variety of needs (Friend et al., 2010). Though the need for specialized instruction within the classroom may be warranted, many researchers have found that it is not occurring (Mastropieri et al., 2005; Kavale & Forness, 2000; McIntosh, Vaughn, Schumm, Haager, & Lee, 1993 One of the reasons cited for this is a teacher's lack of time (Vannest, Soares, Harrison, Brown, & Parker, 2010).

The contemporary high school is expected to prepare all students for successful entry into college or the workforce (Van Reusen, Shoho, & Barker, 2000). The added pressure of high stakes testing as well as the need to make annual yearly progress (AYP) is felt by high school teachers (No Child Left Behind, 2001; Van Reusen, Shoho, & Barker, 2000) This goal of increased achievement for all students has mandated that teachers no longer work alone but requires general and special education teachers to become mutually involved (Bessette, 2007). With the addition of students with disabilities into their classrooms general education teachers

are now expected to also serve students with very diverse needs (Friend et al., 2010; Van Reusen, Shoho, & Barker, 2000). One method utilized to provide instruction in the general education classroom and continue to meet the needs of the students with disabilities is co-teaching.

Co-Teaching: Definition and Practice

To understand something as novel to the literature as co-teaching, one must ensure that terms are being used and understood in agreement. In considering this dilemma researchers have offered a useful approach that has involved classifying common terminology such as co-teaching (Murawski & Swanson, 2001, Cook & Friend, 1995).

One can look specifically at four characteristics that define a collaborative co-teaching method of instruction (Austin, 2001). Those would be (a) general education teachers and special service providers (e.g. special education teachers, speech-language specialists) working together; (b) the intervention occurring in the same physical space (e.g. the general education classroom); (c) an element of co-planning is included (the special service provider did not just walk in and assess what needed to be done); (d) the intervention involves instruction to a heterogeneous group of students with and without disabilities (Murawski & Swanson, 2001). Included in the characteristics is the criterion that the co-teaching partnership lasts for an extended period of time, such as a semester. There are also multiple examples of different types of co-teaching models but the seminal piece by Cook and Friend in 1995 led the way and continues to be referenced (Friend et al., 2010; McDuffie, Mastriopieri, & Scruggs, 2009; McHatton & Daniel, 2008; Scruggs, Mastropieri, & McDuffie, 2007; Wischnowski, Salmon, & Eaton, 2004).

While co-teaching includes professionals planning instruction there are six common models found in the literature (Friend et al., 2010, Cook & Friend, 1995). The models are

flexible in that they are chosen to meet the needs of the students and the objectives being taught (Weiss & Lloyd, 2003). Each varies with the teachers' roles, the teachers' activities and the groupings of students (Cook & Friend, 1995).

The first model is entitled, "one teach, one observe" and involves one teacher leading large-group instruction while the other gathers academic or other data on particular students or the class. The observing teacher is also looking for students that are having difficulty with the material.

The second method is called "station teaching" in which instruction is divided into three groups and students rotate through each group. Each group is taught by a teacher at two of the stops while a group works independently at a third station. This model is beneficial for students because of a lower student-teacher ratio. It also allows both teachers to participate in instruction and observe each student in a smaller group setting.

"Parallel teaching" is the third manner in which co-teaching may be utilized. Two teachers divide the class and each present the same material for the purpose of providing differentiation and increased student participation. They may keep the groups in the same room or one group may leave.

The fourth form of co-teaching is "alternative teaching". One teacher works with the large group and the other works with a small group for remediation or other needs. This may occur in the back of the room offering remediation, enrichment, assessment or pre-teaching. The students in the small group may be those with identified disabilities or those requiring additional support on particular subjects or skills. This model ensures that the needs of all students are met.

The fifth method of co-teaching has been identified as "one teach, one assist". This is a common strategy in co-teaching in which one teacher leads instruction while the other circulates

and assists students individually (Scruggs, Mastropieri, & McDuffie, 2007). This model requires limited co-planning time due to only one teacher primarily responsible for presenting instruction to the students. The drawback to this method is that students may question the authority of the assisting teacher (Nichols, Dowdy, & Nichols, 2010). This may be alleviated if the teachers routinely switch roles.

The final form of co-teaching is termed" teaming". In this method both teachers lead the large-group instruction simultaneously. An example may be observed during lectures where both teachers present. It may also be used when instruction occurs and the teachers present different ways of solving a problem in tandem (Cook & Friend, 1995). This is often considered the "gold standard for co-teachers" (Bessette, 2007, p. 1377) and is heavily reliant on compatible teaching styles and philosophies as well as interpersonal skills. This method requires extensive co-planning and a mastery of the content subject by both teachers.

Utilizing these six methods, teachers work with students on their Individual Educational Program (IEP) goals that were determined in their IEP team meeting. These co-teaching models are not differentiated by grade level or disability but rather are flexible and determined by teachers assessing student need (Weiss & Lloyd, 2003). As noted in the meta-synthesis by Scruggs et al (2007), the "one teach, one assist" is the most common method of co-teaching in elementary schools studied. However, regardless of the manner in which co-teaching is demonstrated, as teachers work with students on their individual goals within the general education classroom, they are also acutely aware of the class as a whole (Walther-Thomas, Bryant, & Land, 1996).

General Education Teachers- Skills

An evaluation of the skills required for general and special education teachers is important when considering the future of collaboration between these two professionals and their ability to meet the needs of all students. The skills indentified as necessary for general education teachers have included addressing curriculum competencies, pacing and classroom management (Friend et al., 2010). All are important skills but the ability to manage a classroom is one skill critical to the success of students (Stichter et al., 2009). Classroom management consists of the ability of teachers to make a classroom a setting where learning can take place in a safe, pleasant environment. The effectiveness of each classroom and the achievement of student learning has been well researched (Stichter et al., 2009).

Kono's (2010) study of 49 principals looked at the skills that they valued most when hiring new teachers. One of the top skills was the ability to build a relationship with each student in their classroom. As pointed out in Stichter et al.'s (2009) study the ability to build relationships with students was the key factor to classroom management and student success. The extent of the success is demonstrated by Dunn, Chambers and Rabren (2004) in a study that surveyed 228 students with disabilities who dropped out of school. They found that developing a relationship within the school setting was a key motivating factor for students with disabilities to not drop out.

Another aspect of management is the ability to coordinate resources. This includes a variety of skills but includes the management of people (students and instructional personnel), time and educational materials (Lewis & Doorlag, 2011). When managing people one must be able to successfully make needs and desires known.

The ability to communicate effectively is another skill teachers need. "A new teacher must have the confidence and willingness to be in constant contact with parents…" (Kono, 2010, p. 60). Yet, it is not only with parents that teachers must communicate with productively. The mutual dialogs must extend to many joint partnerships with fellow educators. They must also be prepared for teamwork and working with their peers. Teachers need the skills to work with building-level teams, communicating effectively in a collaborative mode (Zigmond & Baker, 1995).

Kono's (2010) study further noted that a well run classroom had a teacher who had the skills to present relevant curriculum to all students while keeping up with changes. Research conducted by Titone (2005) found that the instruction of students with disabilities required the teacher to be able to discern the failures of the lesson at the time it is being taught. This study found that in their participants the "skill [was] often lacking in the general education teacher" (p. 19). On the other hand, special education teachers have been trained to work with students until they've achieved the goal or skill they are working on (Friend et al., 2010).

Special Education Teachers - Skills

The Council for Exceptional Children (CEC) has outlined standards for the preparation of beginning special education teachers. These include skills in: using methods for ensuring individual academic success, instruction in organizational and basic skills, and modifying instruction within and across curriculums (Council for Exceptional Children [CEC], 2011). Additional skills identified are those in which the special educator should have expertise, such as the processes of learning and an emphasis on teaching until mastery of skills (Friend et al., 2010). Furthermore, there also must be a commitment to looking at the unique needs of each child (Zigmond & Baker, 1995). This ability to ensure that specially designed instruction is

delivered to students with disabilities is a primary requirement of a special educator (Sayeski, 2009). While the CEC has requirements so does the federal government.

Current legislation such as the Individuals with Disabilities Education Improvement Act, 2004 (IDEIA) holds special educators accountable not only for the pedagogy of instructing those with disabilities but content knowledge as well. Specifically, the special educator of today must know the characteristics of students with disabilities, instructional design and modification, a variety of instructional strategies and the core legal processes associated with special education (Sayeski, 2009) as well as the academic content being instructed.

In general, special educators must have developed many specialized skills. This is observed in a survey of beginning special education teachers who report that they feel better prepared to make accommodations and pace instruction as well as individualize programs as compared to their general education counterparts (Conderman & Johnston-Rodriguez, 2009).

The changing methods used to educate students with disabilities have also altered the roles of special education teachers (Vannest & Hagan-Burke, 2010). Special educators must be more specialized as well as more collaborative (Sayeski, 2009). Those that have been in the field more than ten years have seen a significant shift in their job duties (Carpenter & Dyal, 2007; Kaff, 2004; Turner, 2003). Prior to the most recent emphasis of the inclusion model, special education teachers were classroom teachers. They had their own classroom, their own students and schedules. They, like general education teachers, were autonomous in their daily work (Vannest & Hagan-Burke, 2010, Kaff, 2003). The added emphasis on including students with disabilities into general education classrooms is another of the factors that currently challenges special education teachers (Kaff, 2004). Today, teachers need to use a variety of pedagogical strategies that are flexible and that create individualized teaching approaches in any type of

setting (Titone, 2005). Overall, the skills of those necessary as outlined by the CEC and

integrating them into a co-taught classroom are required for the special educator of today (Weiss,

2004). It is the ability of the teacher to take these skills and use them in the inclusive classroom

that influences a teacher's success (Mastropieri & Scruggs, 2001). In total, it is the capacity to

put together the unique skills of the general and special education teacher that creates a rich

educational setting in a co-taught classroom.

Skills Required to Co-Teach

Co-teaching does not happen easily; there are many complexities which must be

addressed before success occurs (Friend et al., 2010). In Dieker's 2001 study she looked at nine

successful co-teaching teams and determined that there were six factors that led to these thriving

teams. The first skill reported was the ability to work together collaboratively. Collaboration is

defined by Correa, Jones, Thomas and Morsink (2005) as "a mutual effort to plan, implement,

and evaluate the educational program for a given student" (p. 5). To begin teachers must have

the ability and desire to communicate. Even small issues can become big ones if not discussed

openly. Regarding the need for clear communication Kohler-Evans (2006) states, "As a result of

training hundreds of teachers, one message continues to ring loud and clear: the small stuff

becomes big stuff and can potentially jeopardize a [co-teaching] relationship if not attended to"

(p. 263). Perspectives regarding students and instruction vary greatly so it is necessary to come

to mutual understandings about the issues that impact the teaching in a classroom. Effective

communication skills are critical in the need to avoid these issues in a co-teaching relationship

(Ploessl, Rock, Schoenfeld, & Blanks, 2010; Kohler-Evans, 2006; Walther-Thomas, Bryant, &

Land, 1996). Keefe and Moore (2004) noted that of eight co-teachers in their study each teacher

highlighted the importance of communication in the formation of positive relationships. Ploessl

et al. (2010) suggested that simple skills such as effective speaking and listening were important

to building a solid foundation in the co-teaching partnership. The ability to actively listen is also

critical to developing an effective relationship (DeBoer, 1995).

Another of Dieker's (2001) findings was that each member of the team has a positive

perception of co-teaching. Teachers reported positive outcomes for their professional growth as

well as the growth of their students. They need to have common goals for the class but also the

determination to make the partnership work (Brownell, et al., 1997). Scruggs, Mastropieri and

McDuffie's 2007 meta-synthesis of qualitative research found many studies in which teachers

volunteered to co-teach but without willingness between the two the partnership did not work.

Scruggs et al. described co-teaching as that in which "...genuine collaboration must be

spontaneous, voluntary, unpredictable, and oriented toward development" (p.412).

Third, the teachers need to create a positive climate in the classroom. Dieker (2001)

discussed that teachers need to be prepared to modify the manner in which they deliver services,

requiring the ability to be open to change. This flexibility is also a skill that is required for a

successful collaborative co-teacher (Brownell, Yeager, Rennells, & Riley, 1997). Being open

and receptive to others' ideas and thoughts is an important skill in the co-teaching relationship

(Friend, 2000). The need for flexibility varies because these partnerships look different

depending on the pairing. For some teachers it may mean they have multiple co-teaching

partners in one day and therefore perform differently in each room (Sayeski, 2009). As noted in

Mastropieri et al.'s (2005) investigations of long term content area classrooms in which multiple

co-teachers taught it was found, "[w]hen co-teachers are getting along and working well

together, students with disabilities are more likely to be successful and have successful

experiences in the inclusive environment" (p. 268). This was further demonstrated in Austin's

2001 study of co-teaching in which 139 co-teachers were surveyed and interviewed. The co-teachers reported that they were encouraged after their time spent together in a classroom that student participation, the acceptance of differences and cooperation with teachers and peers were all up, hence creating a more positive environment in the classroom. These ideas were echoed in Kohler-Evans' 2006 interviews of co-teachers in fifteen urban and suburban districts. They reported that co-teaching "reaches more students, provides for more student care, that it is fun and the support of a second adult is invaluable" (p. 261).

Two other aspects to a positive classroom climate include the skill to consider and instruct the various learning needs of each child and the ability to successfully manage a classroom. Having a classroom in which the different learning needs of all students are embraced is difficult in the diverse schools of today (Scruggs et al., 2007). This is often a challenge, particularly at the secondary level. Nevertheless, this needs to be discussed, taught and modeled by skilled teachers to achieve the constructive environment in the classroom (Dieker & Murawski, 2003). The environment in the classroom must be conducive to learning. It is difficult for students to think in chaotic settings. A teacher's classroom management skills are observed in their ability to create a positive, productive classroom where all students can learn (Barbetta, Norona, & Bicard, 2005).

Co-teachers often struggle in their roles (Mastropieri et al., 2006). Frequently, the general education teacher is seen as the content specialist and the special education teacher as the expert in differentiating instruction and pedagogy or "manager of activities" (Nichols, et al., 2010, p. 648). When the emphasis is on high stakes testing or other time constraints it can lead to results as demonstrated in a study by Weiss & Lloyd (2003). In their study, little time was available for the special education teacher to modify instruction, leaving them in the role of an

aide. This, however, is the antithesis of the fourth attribute mentioned by Dieker as necessary for a successful co-teaching classroom. In her study the successful classrooms had over 50 percent of the lessons observed involve active learning. "Rarely were lessons taught in the lecture or paper/pencil type of instruction traditionally found at the secondary level" (Dieker, 2001, p. 19). Instead of the special education teacher relegated to the role of an aide, when active learning lessons are used accommodations are more readily made. Co-teaching allows a unique opportunity for special educators to share their expertise about effective cognitive strategies and study skills allowing students to move into a more active way of learning (Dieker & Murawski, 2003; Walther-Thomas, 1997). Cramer, Liston, Nevin and Thousand (2010) discussed the necessary skills that urban secondary teachers must demonstrate for effectively teaching as a co-teacher. One skill which they indentified was that the teachers had the ability to utilize the principles of differentiated instruction. They remarked that simply having two teachers was a benefit due to the variety of the differing instruction available to students, yet teachers must have the skills to vary instruction based on student need.

The fifth key to success in Dieker's study was the skill to use multiple methods to evaluate students that included both academic and social performance. Two teachers in the classroom allow for a variety of evaluation possibilities. As one is teaching the other can occasionally take one minute samplings on target behavior or collect curriculum-based measurements (Ploessl et al., 2010). The use of rubrics (grids to specify requirements for each grade) provides opportunities for all participants to have a deeper understanding and provide additional support to the student (Dieker & Murawski, 2003). The skills of a teacher that allow offering different assessment procedures leads to new insights on student learning (Cramer, Liston, Nevin, & Thousand, 2010). Beyond the specifics, the teachers need the ability to be able

to consistently review student work, collect data and make informed decisions for instruction

based on the data (Tannock, 2009).

The final skill found in all of these successful co-teaching pairs was the ability to not only

set but articulate the high expectations for every student in each lesson. Walther-Thomas

explored the implementation experiences of co-teaching teams and found that those partners in

her study had "huge expectations" for both their students and themselves (p. 406, 1997). Having

a common vision that is expressed to each other is essential to the thriving team. These beliefs

then become the foundation on which their classroom vision is built (Tannock, 2009) and

expectations for all students to achieve their best. Described in a teacher interview from

Walther-Thomas' study

> It had been 4 years since Sean had been in a regular class. He was truly amazed
>
> to find that he could do OK in here. He discovered that there were many things
>
> that he could do that he didn't think he could-and a lot of things that some of the
>
> other kids in this class couldn't do. When he realized all of this, he was willing to
>
> work harder than he ever had in the self-contained classes. He really rose to meet
>
> our expectations-and his own. (p. 339, 1997).

Theoretical Framework for Self-Efficacy Beliefs

The theoretical foundation of self-efficacy is found in the social cognitive theory which assumes that people are capable of intentional courses of action. It finds that "individuals possess a self system that enables them to exercise a measure of control over their thoughts, feelings, motivation, and actions" (Pajares, 1997, p. 2). Self-efficacy sprang from this theory and was developed by Bandura in 1977 (Henson, 2001). Perceived self-efficacy is defined as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (Bandura, 1994, p. 1). People are able to determine their future not only based on biology but on a multi-directional model of environmental influences, behavior and internal personal factors (Henson, 2001). The beliefs that people have about themselves are the key components in which people conduct themselves through various situations in life (Pajares, 1997). "Self-efficacy is very domain specific" (McCormick & Ayres, 2008, p. 465). An example of this is a language arts teacher who has a high self-efficacy for the instruction of reading comprehension but has a lower self-efficacy for teaching writing composition. The social cognitive theory predicts that the teacher with a high self-efficacy in the teaching of reading comprehension will approach that subject positively and maintain her drive despite difficulties (Bandura, 1994).

Bandura (1994) has identified four principal sources of self-efficacy and found that people's belief about their efficacy can be developed by a number of different sources of influence. "The first and most effective way of creating a strong sense of efficacy is through mastery experiences" (Bandera, p. 2, 1994). This is similar to the adage, success breeds success. It also finds that failure undermines the sense of self-efficacy. People evaluate the effects of their efforts, interpret them for the good or the bad (Pajares, 1997) and then base their

understanding of their abilities to be successful in the upcoming situation based on those past experiences. The practice of co-teaching provides daily opportunities in which to practice new skills with the support of a colleague. The daily practice of co-teaching allows opportunities for mastery of skills to naturally emerge as indicated by Bandera (1994).

The second way of creating efficacy is through seeing the experiences of others in similar situations. "The greater the assumed similarity, the more persuasive are the models' success and failures" (Bandura, 1994, p. 2). The more closely the observer identifies with the model the greater the impact on efficacy (Woolfolk Hoy, 2000). Co-teachers are paired with a peer with whom they can often identify with and observe every day. This co-teacher is not a mirror image but rather they both bring unique sets of areas of expertise (Friend & Cook, 2010) in which they can learn.

The third way to increase one's self-efficacy is to strengthen personal beliefs that they are capable in the situation in the form of social persuasion or in other words, verbal persuasions they receive from others (Pajares, 1997). If one is persuaded verbally that they are capable then they are likely to expend greater effort and overcome difficulties when they are encountered. The fourth component is found in one's own emotional feelings when their own capabilities are judged. One's mood affects the perceived self-efficacy of a situation and depending on the mood it can either be enhanced or diminished (Bandura, 1994). The level of the feelings adds to the feeling of mastery or incompetence (Woolfolk Hoy, 2000).

Self-efficacy is an indicator of one's ability to change one's behavior. Therefore self-efficacy is a context or task specific assessment of competence (Bandura 1994) within a certain arena, such as teaching. Self-efficacy influences emotions and thoughts that enable people to pursue goals, persist through adversity, overcome setbacks and exercise control over events in

their lives (Pajares, 1997). In particular teachers' perceptions of efficacy have been associated with positive teaching behaviors (Henson, 2001, p. 819).

      A teacher's self-efficacy has been defined as a "teacher's judgment of his or her capabilities to bring about desired outcomes of student engagement and learning" (Henson, 2001). Teachers' perceptions of efficacy and attitudes have been associated with the success of students with disabilities in inclusive settings (Allinder, 1994; Brownell & Pajares, 1999) however teachers also express concern about their ability to be adequately prepared to instruct students in those classes (Schumm & Vaughn, 1992). "Efficacy affects the effort they invest in teaching the goals they set and their level of aspiration" (Tschannen-Moran & Woolfolk Hoy, 2001). Applying Bandura's theory to the construct of teacher efficacy it is expected that it would reflect the teachers' belief in which the environment could be controlled and their instruction makes an impact (Gibson & Dembo, 1984).

      In 1994, Allinder surveyed more than 400 special education teachers to assess their personal efficacy, or their belief that they can effect change in students and their teaching efficacy, or their belief that children benefit from schooling regardless of home or other factors. She found that teachers' with a high perception of their efficacy to teach were more likely to try different ways of teaching, and to be organized and confident about teaching.

      "The creation of learning environments conducive to development of cognitive skills rests heavily on the talents and self-efficacy of teachers" (Bandura, 1994, p. 10). Teachers who have a high perceived efficacy can motivate their students and enhance their development. This can even influence an entire school community where the teachers believe they can make a difference in the lives of the students regardless of the surrounding environment or other factors.

"Given the current and potential educational value of the teacher efficacy construct, efforts to impact changes in teacher efficacy would be valuable in moving teacher efficacy research beyond the realm of correlational design" (Henson, 2001, p. 11). In 1994 Ross found that general teaching efficacy increased after an eight month training on cooperative learning. Collaboration has also found to be predictive of change in general teaching efficacy. "Current evidence suggests that teacher efficacy is indeed malleable, but that change will likely occur only via engaging and meaningful professional development opportunities…" (Henson, p. 12, 2001). Co-teaching provides the sustained professional development opportunities suggested by Henson (2001) as well as Garet, Porter, Disimone, Birman, & Yoon (2001).

In a recent review of literature regarding teacher efficacy and student achievement, Klassen, Tze, Betts & Gordon (2010) found modest results in the connection between the two in the studies, however they also discuss the lack of available studies and called for more to be done.

Chapter 3 - Research Design and Methodology

Introduction

Co-teaching has become a prevalent method of providing instruction to students with disabilities in general education classrooms (Friend et al., 2010; Gurgur & Uzuner, 2010; Mastropieri et al., 2005; Austin, 2001), therefore the beliefs of both general and special educators' efficacy to adequately instruct students with disabilities within those classrooms merits additional investigation. Few studies have involved the perceived efficacy of both special education and general education teachers to instruct students with disabilities in their role of co-teacher within a general education classroom (Scruggs et al., 2007). Furthermore, the investigation into the changes or lack thereof, in teachers' pedagogy after co-teaching, is also pertinent as the increase in co-teaching is seen throughout the field (Friend et al., 2010). The research questions that guided the collection and analysis of the data included:

1. To what extent does co-teaching with a general education teacher change special education teachers' perceived efficacy to teach students with disabilities in the general education classroom?

2. To what extent does co-teaching with a special education teacher change general education teachers' perceived efficacy to teach students with disabilities in the general education classroom?

Research Design

This study used a mixed methods design as a process for collecting, analyzing and "mixing" both quantitative and qualitative data within a single study. The rationale for the use of both types of studies is that it allows a clearer picture of the research to emerge (Creswell & Plano Clark, 2007). Furthermore, collecting both quantitative and qualitative data brings together the strengths of both forms of research to extend results. Specifically, the mixed methods Triangulation Design - multilevel model, in which quantitative and qualitative data is measured sequentially and collected to represent different levels of analysis within the system of co-teaching, was utilized (Creswell & Plano Clark, 2007).

The Triangulation Design's purpose is to bring together the differing strengths and non-overlapping weaknesses of the quantitative methods (large sample size, trends, generalization) and qualitative methods (small N, details, in depth) (Creswell & Plano Clark, 2007; Patton 1990). In a multilevel model the quantitative and qualitative methods are used to address different levels within the co-teaching system. The findings from each are merged together into one overall interpretation.

Survey Design

The survey was designed to analyze the perceived efficacy of general and special education teachers in the evaluation of the hypothesis which states that co-teaching will positively affect the efficacy and pedagogy for the teachers in the study. The intent was to begin to form an overall interpretation of co-teachers' perceived efficacy in the instruction of students with disabilities before and after co-teaching.

The self-efficacy survey was designed by the author, and addresses the concepts in question. Self-efficacy is a context-specific construct and therefore the instrument used was

designed to closely aligned with the objectives sought (Pajares, 1996). The survey questions are based on the research found in the literature review and the key points by Dieker (2001) in which successful co-teaching teams were described in her study. Each survey question is based on items found within the research (Appendix E). In order to optimize the predictive value of the survey of self-efficacy beliefs, it is necessary to be consistent with the survey questions and what is intended to be measured (Usher & Pajares, 2008). To assess the efficacy of teachers published surveys have been used. However, the use of unpublished survey sources has also been used to measure efficacy (Bates & Khasawneh, 2007).

This survey was initially piloted with education graduate students who did not participate in the study. Based on feedback, items were deleted, additional items were added and revisions were made to the existing items. Subsequently two members of the researcher's committee reviewed the second draft and provided further feedback. The final version of the survey was developed based on this last round of feedback.

Cronbach's alpha was calculated as the reliability statistic. Within the survey, the subscale Impact on Teaching consisted of 6 total items, split between pre and post co-teaching. Pre co-teaching ($a = .77$), post co-teaching ($a = .88$). The Co-Planning scale consisted of 4 items, pre co-teaching ($a = .44$), post ($a = .56$) and the final subscale, Benefit to Students with 2 items pre co-teaching, ($a = .08$) and post, ($a = .12$) Though the subscales of Co-Planning and Benefits to Students were <.70 they were useful to provide categories for the purpose of organization and therefore items were looked at individually. The items in the Impact on Teaching category were also assessed individually to maintain consistency in the analysis.

The study utilized a web-based survey in which questionnaires were hosted on a website and respondents were invited to participate. The use of an electronic survey assists with

standardization that distinguishes the results from qualitative research methods (Ornstein, 1998).

The web-based survey has been shown to be advantageous compared to paper pencil surveys in

that it allows respondents to complete in their own time, saving time and money (Brace, 2004).

The quantitative portion contained 24 Likert-scaled items. A statement was presented and the

respondent selected the most appropriate response from a 5 point scale that ranged from strongly

agree to strongly disagree (Field, 2009). For the first 12 statements respondents were asked to

reflect upon their perceptions of their teaching efficacy prior to co-teaching. For the remaining

12 statements they were to answer as they considered the period during or after co-teaching.   In

addition, demographic data was collected regarding the participants' (a) role of teacher, (b)

length of time co-teaching, and (c) grade level.

Interview Design

Subsequent to the survey, data collection interviews were conducted to explore further

themes and to clarify the quantitative data. The interviews took place via telephone or in person.

Each interview was recorded with the participants' permission. This permitted transcription at a

later time, allowing the researcher the freedom to fully engage with the interviewee. Member

checking confirmed the accuracy of the interviews by having the participants review the themes

and ascertain whether they felt they were correct interpretations.

The interview questions were developed upon analysis of the survey results. This

research design allowed for multifaceted issues to be captured (Creswell & Plano Clark, 2007).

The interview consisted of 10 open ended questions with follow up questions to assist in

clarification. For example, the first question was based on the overall results of the survey and to

determine if there was a link between the overall perceptions of teachers and the question of

"How did you begin co-teaching?" This was intended to elicit if the situation was voluntary or

assigned but also to extend teachers' thoughts on the initial pairing. This led to stories of how

teachers choose their partners, their previous relationships and their thoughts on the subject

(Appendix F).

Target Population and Sample

The target population in this study consisted of general and special education teachers

who are currently, or were within the last year, acting in the role of a co-teacher. The criteria of

selecting the participants were that as defined by Austin (2001). Specifically, it included general

education and special education service providers (e.g. special education teachers, speech-

language specialists) who work together in the same physical space (e.g. the general education

classroom) which also include a time of co-planning. The co-teaching setting involves

instruction by the general and special education teachers to a heterogeneous group of students

with and without disabilities (Murawski & Swanson, 2001) for at least one class period a day,

occurring over a period of time, with the minimum length of time of one semester.

Survey Participants

Purposeful sampling was used to intentionally select participants who met the criteria

(Creswell & Plano Clark, 2007) of co-teachers as defined above. Subsequent to receiving IRB

approval (Appendix A), initial contact was made with 12 school districts in two upper Midwest

states. The school's superintendent, principal or special education director was sent a letter via

email to obtain permission and contact information for co-teachers (Appendix B). A total of 7

out of the 12 districts responded and provided the names and contact information of co-teachers

in their district. This was a response rate of 58 percent.

. An introductory email letter describing the research purpose and overview was sent to

each potential participant (Appendix C). They were asked to voluntarily participate in the co-

teaching survey. The teachers were notified that they had the right to withdraw at anytime without adverse consequences and there were no risks to the participants in the study. A pre-survey questionnaire was emailed to those identified co-teachers to confirm they met the criteria as set by Austin (2001) (Appendix D). Additional participants were added through the use of snowball sampling garnered from teachers as they responded to the initial email. Those additional possible participants were sent the introduction letter. A total of 133 names of co-teachers were gathered. Of those, 122 met the criteria per the pre-survey information that was returned. Those teachers were then sent the co-teaching survey (Appendix E).

Ninety co-teachers returned the survey within five days of receipt. A follow up email was sent to non-responders via Qualtrics and received an additional 11 surveys. A second reminder email was sent with no additional responses. There were 101 out of 122 surveys returned for an 83 percent response rate. To increase the response rate teachers were notified that a certificate for a cup of coffee would be provided for their time when the survey was returned. This was accomplished with the aid of Qualtrics' automatically generated identification number that occurred with every survey response. The certificate was emailed to the teachers. In total 39 special education teachers and 56 general education teachers fully completed a survey for a total of 95 usable surveys. Those that answered less than 70 percent of the survey were not included in the data.   The breakdown of grade level and role of the teachers is included in Table 3.1.

The participants work in urban, suburban and rural settings. The schools represented range from an urban high school with over 2000 students to a rural high school with less than 250 students. All levels of K-12 schools were represented with secondary schools as the majority. Sixty-five (68%) respondents were from 7-12 buildings (secondary) and thirty (32%) were from K-6 buildings (elementary). Twenty-two or 23% were male and seventy-three, (77%)

were female respondents. Specifically, 32 pairs of secondary co-teachers and 21 pairs of

elementary teachers responded. The school buildings consisted of nine high schools, four

junior/middle schools and four elementary schools in this study. Not all co-teachers from each

school participated. In some schools only one pair may be representing the district or school.

Table 3.1

Survey Participants' Role and Grade Level of Instruction

Grade Level	Special Education	General Education
High School	22	31
Middle/Junior High	6	6
Elementary	11	19

Interview Participants

To select the participants for an interview the names of the 95 co-teachers who responded

to the survey were entered into the website Random.org. This site is a "true random number

service that generates randomness via atmospheric noise" operated by Trinity University in

Dublin, Ireland (www.random.org). A list was generated and the first ten general education

teachers were identified as well as the first ten special education teachers. The goal was to

interview a total of 15 percent of those who responded to the survey with an equal number of

general and special education teachers represented. Once the list was determined, teachers were

contacted via email to inquire if they would be willing to be interviewed either in person or by

telephone. Seven special education teachers and nine general education teachers agreed to be

interviewed.

Table 3.2

Interview Participants Role and Grade Level of Instruction

Grade Level	Special Education	General Education
High School	5	5
Middle/Junior High	1	2
Elementary	1	2

Methodology

In an effort to gather sufficient data to most accurately answer the research questions, a mixed-methods approach supported this study, utilizing both quantitative and qualitative modes of research. This research was designed to examine both special and general education teachers' perception of their instruction of students with disabilities in a general education classroom before and after co-teaching as well as any differences between the teachers and their role (special or general education) that emanated from the data. This is a departure from previous research in two aspects. First, earlier research on co-teaching only included teachers who were currently co-teaching and their beliefs about various aspects of that delivery method. Secondly, previous research involved only general education teachers' or only special education teachers' perspectives, but not together in the same study.

The study was constructed using the mixed methods Triangulation Design - multilevel model, in which quantitative and qualitative data is measured sequentially and collected to represent different levels of analysis within the system of co-teaching. The Triangulation Design's purpose is to bring together the differing strengths and non-overlapping weaknesses of the quantitative methods (large sample size, trends, generalization) and qualitative methods (small N, details, in depth). In a multilevel model the quantitative and qualitative methods are used to address different levels within the co-teaching system. The findings from phase 1 and phase 2 are merged together into one overall interpretation.

The online survey required approximately 10 minutes for participants to complete. . Individual unanswered questions were not considered in the analysis. With the application of the central limit theorem an N over 30 for each group the distribution is normal. The total N included general education teachers $n = 56$ and special education teachers $n = 39$.

To begin a paired sample t test was used to evaluate the comparisons of two means, pre co-teaching and post co-teaching for each statement. A t test determines a probability that two responses are the same within each population. This was intended to evaluate if there was a statistical difference between teachers' pre and post co-teaching answers to questions regarding their perceived efficacy of the instruction of students with disabilities within a general education classroom. The group was split by role, general or special educator and then the paired t test was run. Results of each group on each variable were determined. This was followed by an independent samples t test.

The independent samples t test tests the differences between two means for two different populations. In this case general and special education teachers were the two populations. As with paired samples t test there are again two groups of scores. However, the intention was to look at the scores in both groups on the same variable to ascertain if there was a statistical significance between the two groups when considering the difference between pre and post co-teaching. The results from each pre and post question was calculated for both general and special education teachers and then that score was used to look at the differences, if any between the two types of teachers.

The subsequent qualitative portion included interviews that were conducted in person or via the telephone. Ten questions with follow up questions to clarify were asked of each of the 16 participants. The duration of the interviews ranged from 20 minutes to 60 minutes with an average of 40 minutes for each participant.

Data Collection and Instrumentation

    Survey Collection

       Phase 1 consisted of a survey that was used to ascertain the perceived efficacy of co-teachers before and after co-teaching (Appendix E). The survey was conducted electronically using the software, Qualtrics (qulatrics.com). Invitations were sent via email to each of the co-teachers who met the criteria.

       Data was collected via email. Participants responded to the survey and it was automatically returned to the researcher. There was reduced risk for human error in the data collection process due to computerization of the process.

    Open Ended Interview Questions

       Twenty (10 special education and 10 general education) of the 95 teachers who returned a completed survey were initially contacted and asked to participate in phase 2 interviews. Some refused and others did not respond to the email request even after a follow up email. The pool was expanded and the next 10 in the list were contacted. After a total of 30 teachers were contacted, 16 agreed to be interviewed. Of those 16 (17% of the 95 teachers), 10 were high school teachers, 3 were middle school teachers and 3 were elementary teachers. Their permission to record the session was obtained and notes were also taken to follow up with any other pertinent information. The recorded data was then transcribed.

Chapter 4 - Results

Introduction

This mixed method study was based on the statistical results of the survey data and interviews. Phase one consisted of the survey of 95 co-teachers and phase two focused on interviews of 16 co-teachers. In each case both special and general education participants represented high schools, middle/junior schools and elementary schools.

In an effort to gather sufficient data to most accurately answer the research questions, a mixed-methods approach supported this study, utilizing both quantitative and qualitative modes of research. This research was designed to look at both special and general education teachers' perception of their instruction of students with disabilities in a general education classroom before and after co-teaching as well as any differences between the teachers and their role (special or general education) that emanated from the data. This is a departure from previous research in two aspects. First, earlier research often looked at teachers who were currently co-teaching and their beliefs on various aspects of that delivery method. Secondly, existing research considers either general or special education teachers separately, rather than both types of teachers within one study.

A paired sample t test was used to evaluate the comparisons of two means, pre co-teaching and post co-teaching. . This was intended to evaluate if there was a statistical difference between teachers' pre and post co-teaching answers to questions regarding their perceived efficacy of the instruction of students with disabilities within a general education classroom. Then the group was split by role, general or special educator and then the paired t test was run.

Results of each group on each variable were determined. This was followed by an independent

samples *t* test.

The independent samples *t* test tests the hypotheses regarding the differences between

two means for two different populations. In this case general and special education teachers

were the two populations. As with paired samples *t* test there were again two groups of scores.

However, the intention was to look at the scores in both groups on the same variable to ascertain

if there was a statistical significance between the two groups when considering the difference

between pre and post co-teaching. The results from each pre and post statement was calculated

for both general and special education teachers and then that score was used to look at the

differences, if any between the two types of teachers.

The subsequent qualitative portion included interviews that were conducted in person or

via the telephone. Ten questions with follow-up clarifying questions were asked of each of the

16 participants. The duration of the interviews ranged from 20 to 60 minutes with an average of

40 minutes for each participant.

Quantitative Data

    Results of paired t test.

        To examine the impact of co-teaching on general and special education teachers'
perceptions of efficacy, survey results were analyzed quantitatively. As the research was focused
on both general and special education teachers, participants' responses were split based upon
their role.   Twelve statements were used to determine differences between pre and post co-
teaching based on the survey using a paired-samples t test. Subscales within the survey were
initially based upon a review of literature and hypotheses that were formed. The categories are
(1) Impact on Teaching, (2) Benefits to Students, and (3) Co-planning with each statement
analyzed individually and divided by teacher role.

        Impact on teaching. Six statements were included in this category. Each statement was
asked in past tense as teachers considered their thoughts on each before they co-taught. Later in
the survey they were presented a similar statement framed in present tense as they considered
their work with students post co-teaching.

        The statements in the category of Impact on Teaching were (a) I was/am able to
effectively differentiate instruction to all students, (b) Students with disabilities achieved/achieve
their goals in my classroom, (c) I was/am confident of my ability to instruct for students in my
classroom, (d) I believed/believe that students with disabilities should be taught in a general
education classroom, (e) I was/am effective assisting students with disabilities to meet their
academic IEP goals within the general education classroom, and (f) I was/am effective assisting
students with disabilities to meet their social/emotional IEP goals within a general education
classroom. Each of these sets of statements was analyzed separately.

A paired samples t test was conducted to compare general education teachers' response to the statement regarding their ability to differentiate instruction before and after co-teaching. Their results indicated a significant difference in scores from pre co-teaching ($M = 3.06$, SD 1.02) to post co-teaching ($M = 3.85$, $SD = .77$) at the .01 significance level ($t = 6.12$, $df = 51$, $p = .000$). A pooled standard deviation was used in the Cohen's d for all paired t tests to look at the differences in means. The effect size for this analysis ($d = .83$) was found to exceed Cohen's (1988) convention for a large effect ($d = .80$) suggesting a high practical significance. The results for special education teachers regarding the same statement were also significant for pre co-teaching scores ($M = 3.54$, SD .87) and post co-teaching scores ($M = 4.03$, $SD = .73$) at the .01 significance level ($t = 3.18$, $df = 36$, $p = .003$, $d = .61$).

Pre and post scores increased when general education teachers were asked about their perceived ability to meet students with disabilities' goals. The pre co-teaching results ($M = 3.28$, SD .94) to post co-teaching results ($M = 4.07$, $SD = .67$) were significant at .01 ($t = 6.00$, $df = 53$, $p = .000$, $d = .97$). Special education teachers' scores also significantly increased for the pre co-teaching response ($M = 3.38$, SD 1.19) to post co-teaching response ($M = 3.86$, $SD = .79$) with results at the .05 significance level ($t = 2.20$, $df = 36$, $p = .034$, $d = .48$).

Teachers were asked how confident they felt in their ability to assist students with disabilities achieve social goals in the classroom before and after co-teaching. General education teachers' scores increased from their pre co-teaching results ($M = 3.19$, SD .89) to post co-teaching results ($M = 4.06$, $SD = .60$) which were significant at .01 ($t = 6.71$, $df = 53$, $p = .000$, $d = 1.15$). Special education teachers also had an increase from the pre co-teaching response ($M = 3.46$, SD 1.15) to post co-teaching ($M = 4.08$, $SD = .68$) with results at .01 significance level ($t = 2.73$, $df = 36$, $p = .010$, $d = .66$).

The statement that asked teachers' perceptions regarding their students with disabilities and goal achievement had mean increases for general education teachers. Their pre co-teaching score ($M = 3.52$, $SD = .84$) increased to the post co-teaching score ($M = 3.85$, $SD = .66$) at the .01 significance level ($t = 3.06$, $df = 53$, $p = .003$, $d = .44$). In the same statement special education teachers' responses did not significantly increase or decrease after co-teaching.

When asked about their ability to instruct students with disabilities, general educators' results indicated a significant increase between the pre and post co-teaching survey responses. Their scores for pre co-teaching ($M = 3.40$, SD .87) increased to post co-teaching ($M = 4.11$, $SD = .66$) and were significant at .01 significance level ($t = 6.16$, $df = 53$, $p = .000$, $d = .91$. See Table 4.1 for complete results.

Table 4.1

Results of Paired T Test Impact on Teaching Pre and Post Co-Teaching

Question	Pre Co-T	Post Co-T	95% CI for Mean Difference	*t*	*df*	*p* value	*d*
(a) able to differentiate							
General	3.06	3.85	-1.04, -0.53	6.21***	51	.000	.44
Special	3.54	4.03	-0.80, -0.18	3.18**	36	.003	.61
(b) student goals							
General	3.52	3.85	-0.55, -0.12	3.06**	53	.003	.17
Special	3.78	3.81	-0.30, 0.23	.22	35	.831	.05
(c) ability to instruct							
General	3.40	4.11	-0.94, -0.48	6.16***	54	.000	.92
Special	4.11	4.24	-0.44, 0.17	.90	36	.376	0
(d)students in gen ed							
General	3.65	3.82	-0.34, 0.15	1.83	54	.071	.23
Special	4.00	4.00	-0.23, 0.23	.00	35	1.00	.48
(e) meet academic goals							
General	3.28	4.07	-1.06, -0.53	5.98***	53	.000	.97
Special	3.38	3.86	-.94, -0.04	2.20*	36	.034	1.14
(f) meet social goals							
General	3.19	4.06	-1.13, -.61	6.71*	53	.010	.33
Special	3.46	4.08	-1.08, -0.16	2.73***	36	.000	.66

*$p < .05. p<.01** p<,001$

Benefits to students.

The statements in this category are (g) I believe/believed that all students with disabilities benefit from being in a general education classroom and (h) Students with disabilities were engaged socially with both disabled and non disabled peers in my classroom.

General education teachers' mean scores increased for the statement regarding social engagement and their students with disabilities. Their pre co-teaching scores (M = 4.11 *SD* .82) to post co-teaching scores (M = 4.33, *SD* = .61) were significant at .05 (t = 2.12, *df* = 53, p = .038, d = .30). Results for special education teachers also increased with pre co-teaching scores (M = 3.30, *SD* 1.22) to post co-teaching scores (M = 4.24, *SD* = .76) at the .01 significance level (t = 4.39, *df* = 36, p = .000, d = .92).

Teachers were also asked regarding their perceptions of students benefiting from a general education classroom. Only general education teachers had a significant increase in means with pre co-teaching results (M = 3.18, *SD* .96) and post co-teaching results (M = 3.51, *SD* = 1.05) at the .01 significance level (t = 2.62, *df* = 54, p = .011, d = .33). Complete results are found in Table 4.2.

Table 4.2

Results of T Test Benefits of Pre and Post Co-Teaching

Question	Pre Co-T	Post Co-T	95% for Mean Difference	t	df	p value	d
(g) all benefit							
General	3.18	3.51	-.58, -.08	2.63**	54	.011	.33
Special	3.54	3.62	-.42, .26	0.49	36	.628	.06
(h) engaged socially							
General	4.11	4.33	-.43, -.12	2.12*	53	.038	.30
Special	3.30	4.24	.26, -.51	4.39***	36	.000	.92

*Note. * p < .05 **p<.01 ***p<.001*

Co-Planning.

The final category, Co-Planning, includes the statements (i) School administration provided/provides adequate planning time for my co-teacher and me, (j) During planning of instruction I was/am open to others ideas and thoughts regarding teaching, (k) I was/am able to effectively communicate my classroom expectations to my future/current co-teacher, and (l) My co-teacher and I had/have adequate time to plan together.

When given the statement regarding administration providing adequate time to plan, general education teachers had an increase in their pre co-teaching results ($M = 2.15$ SD 1.06) to post co-teaching results ($M = 2.45$ $SD = 1.17$) at the .05 significance level ($t = 2.30$, $df = 54$, $p = .025$, $d = .27$). Special education teachers also had an increase with their pre co-teaching scores ($M = 2.19$, SD $.92$) and post co-teaching scores ($M = 2.78$, $SD = .1.12$) with results at the .01 significance level ($t = 3.33$, $df = 35$, $p = .002$, $d = .57$).

Teachers were asked to consider the degree, if any, of change regarding their ability to communicate with their co-teacher. General education teachers' scores increased from pre co-teaching ($M = 3.67$ SD 1.13) to post co-teaching ($M = 4.19$ $SD = .78$) at .01 significance level ($t = 3.15$, $df = 53$, $p = .003$, $d = .53$). Special education teachers' scores also increased with the pre co-teaching result ($M = 3.68$, SD $.94$) to the post co-teaching result ($M = 4.24$, $SD = .68$) at the .01 significance level ($t = 2.84$, $df = 36$, $p = .007$, $d = .68$).

The statement that inquired if there was adequate time to plan with their co-teacher received mixed results. Special education teachers had a significant mean increase in their pre co-teaching scores ($M = 2.17$, SD $.97$) and their post co-teaching scores ($M = 2.67$, $SD = 1.09$) at the .05 significance level ($t = 2.54$, $df = 35$, $p = .016$, $d = .48$). However, general education

teachers' mean scores did not result in a statistical increase or decrease after co-teaching. Results

for the entire category are found in Table 4.3.

Table 4.3

Results of T Test Co-Planning Pre and Post Co-Teaching

Question	Pre Co-T	Post Co-T	95% CI for Mean Difference	t	df	p value	d
(i) admin provide time							
General	2.15	2.45	-0.58, -0.04	2.29*	54	.025	.27
Special	2.19	2.78	-0.94, -0.28	3.33**	35	.002	.57
(j) open to others							
General	4.30	4.31	-0.21, 0.18	.19	53	.849	.02
Special	4.34	4.37	-0.22, 0.17	.30	34	.768	.05
(k) able to communicate							
General	3.67	4.19	-0.84, -0.19	3.15**	53	.003	.53
Special	3.68	4.24	-0.97, -0.16	2.84*	36	.007	.68
(l) adequate time							
General	2.50	2.56	-0.41, 0.30	.31	53	.756	.05
Special	2.17	2.67	-0.90, -.10	2.53*	35	.016	.48

Note. *p < .05 **p<, .01 ***p <.001

Results of independent *t* test.

To examine differences in general and special education teachers' responses to the statements posed in the survey, an independent t test was conducted. Levene's test for equality of variances was found to be violated for variables (f) and (h). Owing to this violated assumption, a *t* statistic not assuming homogeneity of variance was computed for those variables. All others met the criteria for equality of variances.

The results indicated that there was a significant difference in two variables for general and special education teachers. The first is (c) the statement which asked teachers to consider their ability to instruct students with disabilities in a general education classroom. The results indicated that general education teachers had higher mean scores ($M = .71$, $SD = .85$, $n = 55$) than did special education teachers ($M = .14$, $SD = .92$, $n = 37$) at the .01 level of significance ($t = 3.07$, $df = 90$, $p = .003$, $d = .61$)

The second statement asked teachers to reflect upon whether students were (h) socially engaged with peers in their classroom. Special education teachers had higher mean results ($M = .95$, $SD = 1.31$, $n = 37$) than general education teachers mean scores ($M = .22$, $SD = .77$, $n = 54$) at the .05 level of significance ($t = 3.02$, $df = 52.96$, $p = .000$, $d = .71$).

The remaining responses included no statistical difference between how general and special educators answered the survey questions. See Table 4.4 for complete results.

Table 4.4

Results of Independent T Tests Comparing General and Special Education Teachers

Variable	*M*	*SD*	*n*	*M*	*SD*	*n*	95% CI	*t*	*df*	*p value*
		General			Special					
(a) ability diff	.79	.91	52	.49	.93	37	-.70,.09	1.51	87	.133
(b) student goals	.33	.80	54	.03	.13	36	-.64,.03	1.80	88	.074
(c) ability instruct	.71	.85	55	.14	.92	37	-.95,-.20	3.07**	90	.003
(d) student gen ed	.16	.66	55	.00	.68	36	-.45,.12	1.15	89	.255
(e) acad goals	.80	.98	54	.49	1.34	37	-.80,.17	1.23	89	.235
(f) social goals	.87	.95	54	.62	1.38	37	-.77.27	.95	59.02	.345
(g)+ all benefit	.33	.92	55	.08	1.01	37	-.65,.16	1.2	90	.231
(h) engage socially	.22	.77	54	.95	1.31	37	.24,1.20	3.02**	52.97	.004
(i)+ admin time	.31	1.00	55	.58	1.05	36	-.16,.71	1.26	88	.213
(j) open others	.02	.71	54	.03	.57	35	-.27,.29	.07	87	.941
(k) able comm	.52	1.21	54	.57	1.21	37	-.46,.56	.19	89	.850
(l) adequ time	.06	1.31	54	.50	1.18	36	-.09,.98	1.64	88	.105

Note. *p < .05 **p <.01   + Levene's test for equality of variances was found to be violated for (g) and (i). A *t* statistic not assuming homogeneity of variance was computed.

Qualitative Data

Content analysis is a form of qualitative investigation. This was conducted on the data obtained from the interviews held with 17 percent of the survey participants. The fixed question, open response interview followed a 10 question script that was asked of each teacher as well as follow up questions to clarify when needed. The coding of these responses began with the researcher making notes and starting to form the major themes that were emerging. The data was then entered into NVivo software. NVivo allows the collection, organization and analysis of qualitative data. Once the transcripts were entered into the software it was auto coded using the computer to organize, preorder and reconfigure the data to enable reflection. NVivo also allowed the examination of codes and when overlapped, allowed for further inferences. After detailed attention to language and reflection on the emergent patterns the data was organized into major themes. This was then correlated with the researcher's notes and the process continued with the merging of major themes from the two sources.

Triangulation was used to confirm emerging findings. The interview content gathered participant perceptions about the various subjects discussed. This was merged with findings from the survey responses. Further content analysis was then conducted on the qualitative data. Initially, there were 10 themes that developed. Upon further analysis these were compressed into eight categories. Member checks occurred with interview participants to ensure accurate representation of teachers' views in the emergent categories. They included (a) benefits to students and (b) teachers (c) drawbacks (d) administration support (e) origin of co-teaching assignment (f) co-planning (g) roles of each teacher and (h) impact on teachers. These themes became further compressed as the research questions set the focus on the perception of the efficacy of teachers' ability to instruct students with disabilities in a general education classroom.

With that in mind, four themes emerged. Those four were (a) impact on teachers (b) benefits and drawbacks to teachers and students (c) roles of teachers within the classroom and (d) co-planning.

Interviews were held either in person or on the telephone with the 16 teachers who had been randomly chosen from the list of 95 survey respondents. Each interview began with introductions and the basic interview guidelines. The purpose of the interview, to seek further insight to teachers' perceptions of co-teaching and its impact on their teaching, was described. The interviewer remained silent while the participant responded to the questions. If the teacher hesitated or needed clarification, a prompt was given by the interviewer. Initially, the questions were broken down into six general categories based on literature reviewed and the survey. The categories were setting, planning, impact on students, benefits and drawbacks, impact on teachers, and administration involvement in co-teaching.

Interview responses.

Co-teaching settings.

The first three questions were designed to have teachers describe the co-teaching setting in which they worked each day. Participants responded to the first interview question, "How did you begin co-teaching?" by indicating whether they were assigned or volunteered to co-teach. The majority of teachers (n= 10) indicated that they were assigned to co-teach by an administrator. The remaining (n=6) teachers stated that they volunteered for the assignment. One high school general education teacher said, "I have been assigned to co-teach for seven years with multiple special education teachers." In contrast a general and special education elementary team stated: "[One partner] chose them to voluntarily pair up a few years ago. So we've been working together since then."

A follow up question asked teachers to describe their relationship with their co-teacher. This question elicited a variation of responses and was one that teachers often appeared to be eager to discuss. There were positive descriptions such as a general elementary teacher who described her relationship with her co-teacher as, "Good, still developing our different roles, cooperative, friendly and we plan well together." However, when asked to expand she mentioned that this was a new assignment and modified her position a bit, "It's been an adjustment, [I'm] not used to it, and so it's been an adjustment having to share the class." One high school general education teacher described the first year as, "an adjustment year." But a general education middle school teacher put it this way, "The relationship is important, but more important is the other person's willingness to try crazy ideas."

Negative responses were also found in discussions about the relationship between co-teachers. "It's been frustrating, we have different views of how his [special education teacher]

role in the classroom could be" was the comment of a high school general education teacher. She went on to say, "I am not sure where the 'team' is in the team teaching." A special education middle school teacher found creating a team difficult also when he said, "It is difficult at the middle school level. It is hard to have relationships with so many people [that are required at the middle school]".

The need to develop a positive working relationship was also a common theme. Two teachers, one a general education elementary teacher and one a high school general education teacher mentioned that they were "still trying to find our jive". Both teachers are from the same district and perhaps that is the reason they used even the same phrase to describe this process. They also both suggested it was due to new assignments that were not voluntary. The elementary teacher stated, "We recently merged buildings so there are funny feelings about working together." Very much along a similar vein the high school teacher said, "The forced collaboration with totally new staff from a different building [created tension]".

Regardless of the subject being discussed, those interviewed chose to emphasize that the relationship was a key element in the success or failure of a co-teaching partnership. A general education elementary teacher said the need for a positive relationship "is critical." A middle school special education teacher expanded on the subject further by defining what she saw as important in the relationship. "It turns out we are friends, but I think it's the respect for each other." A high school general education teacher echoed the thought as she indicated "the key is being flexible and respectful of the other person's ability to do their job."

The second question dealt with teachers' reflections on how they saw their position in the co-taught classroom. It asked teachers to "Describe your role in the classroom." This too elicited varied responses that were both positive and negative. Often it was the special education

teachers who had a negative response to the query, indicating that their role was often relegated

to that of an aide. One high school special education teacher discussed the fact that it is his role

to work in another person's classroom, "One difficulty found is the resistance of a teacher to

share their classroom. Unless they are willing to give up you can feel like a paraprofessional."

A middle school special education teacher echoed that sentiment, "Over the last 15 years I have

often felt like I was really acting like a parapro[fessional]." A high school special education

teacher was asked to consider how he and his co-teacher resolved issues in the management of

the classroom. He echoed the confusion found by other teachers working in another's physical

classroom when he said, "She is the teacher of record so I don't feel I can say too much. But I

have let her know my thoughts and say, 'just think about it.'"

There were encouraging comments from special education teachers also. One high

school special education instructor said, "We are both in the classroom the total period. We both

take responsibility for all instruction." And he continued, "Both of us are dedicated to making it

successful for the kids." There were examples of parity within the co-teaching partnerships. A

high school special education teacher cited this example, "We both teach based on the needs of

the classroom. We tag team throughout the lecture. Sometimes she'll start, other times I will.

Sometimes she grades the papers, other times I do." However, she too expressed a mixed

message when she finished with "Generally she'll put it [grades] into the grade book because it's

her classroom" [Italics added].

General education teachers often saw themselves as the leader of the classroom with the

special educator providing support. At times it was apparent why that was the case. An

elementary teacher talked about her current special education partner, "I do all the planning. I do

all the delegation (to the special education teacher), suggested she takes more of a lead but she

says 'No, I'll do whatever you want to do'". A high school teacher described her experience with a first year co-teaching relationship, "I do the planning, then I do the instruction, then the co-teacher sees it once and understands the lesson. The problem with this is the kids come to me. They see me as the only one with the knowledge."

General educators also saw the advantage in the various roles of the partners. A middle school teacher talked about the benefits of having two teachers in the classroom, "There are times when she takes the lead, other times I do. If one of us isn't there then the other one just picks it up." She continues, "You have to be willing to let someone else take the lead, other teachers aren't willing to do that. I think, hey, go ahead, she's helping me out."

To learn about the students who were being served in these co-taught classroom teachers were asked to "Describe the students in your classroom". Of the 10 teachers who answered the question it was found that their co-taught classrooms consisted of between 10% and 50% special education students. This was true across all levels. A high school special education teacher described her co-taught classrooms, "We usually had between 25 and 32 students in our English classes. There were generally between 3 and 7 special education students." When asked if students were placed with the intention of a co-teaching method of instruction she continued, "Initially it was random. I would find the classes and students who had a need and schedule myself in that class. After a few years we began to specifically schedule students into co-taught classes based on their needs." A high school special education math teacher reported that he had "34 kids with about 50% of special education in each of the lower level math classes."

Co-planning.

The fourth question inquired about the co-planning done between co-teachers. Even though this had been one of five disqualifying questions in the preliminary survey that required

an affirmative statement, there were still some teachers who, when interviewed, said they did not

co-plan. A high school general educator reported that she has tried to involve her special

education partner in the process with little progress. "I do all the planning; I am trying to hint to

her to take a bigger role but she says, 'oh no, whatever you want is fine.'" Another general

education high school teacher indicated it is due to her partner's lack of time that there is not co-

planning happening, "We do have the same hour planning and do teach across the hall.

[However] he says he doesn't have time to co-plan, so none is done." A general education

elementary teacher continues to describe the logistical problems involved with co-planning, "We

don't have a regular time. She's split between four buildings. We don't have any common

planning time. We try to grab a few minutes here, a few minutes there."

Many of those interviewed reported co-planning when the opportunity arose rather than a

regularly scheduled appointment. A high school general education teacher said they have a

"common planning period. We co-plan on the fly, not every day. We eat together and then talk,

so it's a perfect time to talk because we're eating."

There is regular co-planning occurring also. A special educator described the regular co-

planning as, "not every day but we do some each week." Another high school special education

teacher said they "try to co-plan about once a week or as needed." A general education middle

co-teacher said of his partnership, "we are on the same brain wave so we don't need to sit down

and plan together. We are together most of the day so we each anticipate what is going to happen

next."

Co-teaching and students.

The fifth question asked teachers to reflect on how they felt co-teaching affected their

students. The response to this question was overwhelmingly positive as teachers reflected on the

impact with both general and special education students. A high school general education

teacher said that "co-teaching is meeting their [special education students'] needs." When asked

about the general education students in the classroom, she stated that, "the more adults – eyes –

on them help them know they can't be off task. Behaviorally, it makes a difference as well, as

their questions are answered more quickly." One general education high school English teacher

mentioned the ability to "split up and work with smaller groups. [This enables the students to]

feel more comfortable to come in and see me or her later." A middle school special educator

said, "I feel strongly that it's been a wonderful change to have their special education teacher [in

a general education classroom]. When I read a test I have 2/3 special education kids and 1/3

general education students [who] chose to come with me. It's normalized getting help." One

high school general education teacher mentions that "being one teacher with 30 kids is difficult

and having another person allows for work with individual students to make sure no kids are

being left behind." He also pointed out that "having another personality in the classroom brings

in different teaching styles and allows students to have more needs met."

        There were a few negative comments on the impact of co-teaching and students. One

high school general education teacher described an ineffective teaching situation by stating that it

is not a working team, saying her co-teacher was "not there every day. He only makes an effort

if I ask him to get to a kid. He's passive. I don't see any benefits. I believe there needs to be

more professional development." She went on to point out a potentially significant problem that

if he isn't in the classroom then students are not receiving the special education services they are

entitled to suggesting, "They [students] are not supported. They do get modifications from me

but not enough from the special education teacher." Another general education high school

teacher mentioned that having two teachers is sometimes confusing for students. While she

attempts to explain this to students she demonstrates some misunderstanding in her own mind when she compares special education teachers to teachers' aides. "In surveys some students have said that having two teachers talking was sometimes confusing." She continues, "The perception of the kids is one of puzzlement to begin – they ask why do we have two teachers? I say, 'well if you are in a large lecture hall in college then you'll have multiple teachers as teacher's aides and it's similar to that.'"

Benefits and drawbacks of co-teaching.

The sixth and seventh questions asked teachers what they felt the overall benefits and drawbacks were to co-teaching. One middle school general education teacher described the benefits his students felt about the co-teaching method, "They love it. They play the 'ask mom' game hoping for a different answer [from the other co-teacher]. We tend to be kind of goofy and we banter back and forth and they like it." A middle school special education teacher believed that the placement of special education students in a co-teaching setting is a benefit, "It's important that the kids are in the environment where all the kids are. [Being in this math class] gives the kids the chance to prepare for high school and get the individual attention they need."

The drawbacks included a variety of issues. A middle school special educator voiced a concern that was raised by three other special educators when she said, "A drawback is when a special educator is placed in a situation and is treated like a helper [as opposed to a teacher]." The general educator in the same middle school team said a drawback was "the losing control [of the classroom]. He further explained that another negative outcome of the close relationship with the co-teacher was the complete transparency that results from the daily working relationship. "The other person sees how 'it' [the teacher's preparation] all works. There is no faking anything." Four co-teachers mentioned the need for additional planning time as a

drawback to this method of instruction. A high school special education teacher said, "The time for planning is hard, getting together and then if you can't then you are winging it." A veteran middle school general education co-teacher of more than 17 years said a potential problem with co-teaching is that "things might be 'dummied down'. If you have one classroom and you have kids at one level and another group at a different level it makes it really hard. I teach the content that needs to be taught and hopefully the kids are not left behind. I try to make sure they don't fall behind."

Finally, a special educator echoed the thoughts of others in her field when she expressed that she missed having her own classroom and all that was encompassed with that loss. "I still feel I love having control and knowing what they [students with disabilities] need and helping them be successful. Now, I feel so false and horrible sometimes when I am cramming benchmarks down their throats, making them do math that they don't get." However, she modified her remarks a bit, "So thank heavens it is tempered by the good things you see [in a co-taught classroom], or it would drive me nuts."

Impact of co-teaching on teachers.

The eighth question asked how teachers felt the co-teaching experience has impacted their teaching. Again, the responses were mostly positive in nature. A middle school general education teacher mentioned that he is "a little more tolerant" after working with a special educator in this setting. One high school general education teacher said that "I am a better teacher because of my co-teachers. Even after doing this for so many years…" Another high school general education teacher stated that "it makes me more conscious of my style. It gives me more strategies to use with all students." Still another high school general education teacher considered her observations of her special education co-teacher, "I see how she approaches the

material and makes accommodations which come more naturally to her." One high school special educator discussed the impact on her teaching. "Even after more than 15 years of teaching it's had a huge impact on my ability to manage a large classroom. I was pretty adept at working in classrooms of 5 -15 students, but when working with over 30 students in a classroom – it is a whole new ballpark and requires different skills."

Role of administration on co-teaching.

The final question asked teachers about the support they received from the administration regarding the implementation of this method of instruction. Overall, the responses to this query were short and did not seem to play a significant role in teachers' thoughts on the subject. One general education high school teacher did say, "We had good support for a few years but now it seems to be waning. I'm not sure it will continue in the next few years. This concerns me because I've invested a lot of time into developing relationships and lesson plans for it all to go away." A special education middle school teacher mentioned that "the administration could be more helpful by taking into consideration putting people together." He was concerned that good matches were not made in regards to matching certifications and personalities.

Summary of General Education Teacher Interviews

The perceptions of general and special education teachers were similar in many categories. However, there were some variations based on the role of the teacher. General education teachers' positive themes were in their work with students who are disabled. They believed that co-teaching helped them understand students with disabilities and appreciated the opportunity to work with a special educator to gain insight into techniques that worked. They also saw benefits to students who were in the co-taught classrooms both in the fact that there were two teachers in a classroom to meet the needs of students on a daily basis as well as the

improvement they saw in the relationships students with disabilities had with their peers or teachers.

There were two primary negative perceptions of general education teachers regarding co-teaching. The first was the extra time they felt the planning required. This was mentioned by teachers at each level. To work as a team required extra time to consult with each other. The unstructured time of teachers is very limited and the need to plan together placed additional pressure on the relationship and daily lives of the teachers. A further concern was one in which they felt the relationship didn't work or they felt their partner was not doing their job as they felt it should be done. This was often manifested with the special educator not being present in the classroom on a regular basis or lack of effort in planning or daily work.

Table 4.5

Sample of Major Themes Responses – General Education Teachers

Four Major Themes	Years of Experience & Grade Level	Exemplars of Participant Responses
1. Impact on Teaching	5-10 years High School	"I don't think I was doing my job with students. I don't think I had the background to understand what I needed to do.
	11+ years Elementary	I was always frightened that I wasn't doing enough or the right thing (with students with disabilities).
2. Benefits:		
Teachers	5-10 years High School	I might get stuck doing the same thing over and over and (co-teacher) will have a new idea.
	11+ years Elementary School	It (material) is presented two ways with both teachers so they get a double dip. Even the more advanced end get more individualized instructions.
Students	5-10 years High School	Students with disabilities develop better relationships
3. Roles of Teachers	5- 10 years High School	We usually are both up front and running the class and play off each other. We both kind of take charge of the class and we do things together rather than apart
	11+ years Middle School	You have to be willing to let someone else take the lead; other teachers aren't willing to do that. I think, hey, go ahead, she's helping me out
4. Co-Planning	5-10 years Elementary School	We have common planning time but are at opposite ends of the building, so we don't sit down as often as we should
	11+ years High School	"We talk on the fly…"

Summary Special Education Teacher Interviews

Special educators indicated two particularly positive aspects of co-teaching. The first was the impact on students with disabilities being instructed in a general education classroom. Seven out of seven special education teachers mentioned that there were many benefits to students placed in a general education classroom. The advantages ranged from the increased self esteem found in their students to the academic "push" they received in that setting. They also mentioned the benefits to their teaching as a positive impact. In pre-service training special educators have often been trained to work only with small groups. The opportunity to work with teachers who are well trained and experienced with large classrooms is valuable. There were also four out of seven teachers who mentioned the advantage of being in content classes that expanded their knowledge of content and therefore their ability to assist all students more efficiently.

The most common drawback associated with co-teaching from a special educators' perspective was their role in the general education classroom. Respondents reported a seeming lack of parity on a regular basis. All seven special education teachers co-taught within the general education teachers' classrooms, and the negative impact from that was felt. Even this somewhat mundane need to share the physical space was a stumbling block for relationships. When questioned, teachers reported that they were usually not given any space to put any belongings, leading them to feel as visitors in the classroom. Their perceptions were that they were not considered peers with their general education counterparts; instead, they felt like paraprofessionals rather than certified teachers. This led them to two possible conclusions regarding the general education teachers' views. One, there was a lack of respect from the general education teacher or two, a lack of awareness of their needs. These attitudes occasionally

spilled over to the students. In addition, some of the special education teachers were also unclear of the roles they were to play.

Table 4.6

Sample of Major Themes Responses - Special Education Teachers

Four Major Themes	Years & School Level	Exemplars of Participant Responses
1. Impact on Teaching	11+ years High School	"Last year I had a teacher with a great sense of humor. I learned a lot from him about building a rapport with kids."
	5- 10 years High School	"I get insight from my co-teacher in the way she teaches"
	11+ years Middle School	"It is the respect. I think the level of respect has grown."
2. Benefits: Teachers	11+ years Middle School	"We learn from each other… There is also an accountability piece there."
	11+ High School	I get insight… I enjoy seeing different strategies, mine is not the only way
Students	11+ years Middle School	"Their confidence goes up; they learn better and it becomes a good cycle."
	5-10 years Elementary	"Their depth of knowledge gets pushed."
3. Role of Teacher	11+ years High School	"We both teach based on the needs of the classroom."
	11+ years High School	"At times I have felt like an overpaid paraprofessional."
4. Co-Planning	2-4 years Elementary	"We don't have a common planning time. We try to grab a few minutes here, a few minutes there."
	11+ years High School	"About once a week."

Summary

This sequential mixed methods study describes the descriptive statistics that were used to analyze each item in the survey. A paired *t* test was conducted to evaluate the comparisons of two means, pre co-teaching and post co-teaching of both general and special educators. This was intended to determine a statistical difference between teachers' pre and post co-teaching answers to questions regarding their perceived efficacy of the instruction of students with disabilities within a general education classroom. The group was split by role, general or special educator, and then the paired *t* test was run. Results of each group on each variable were determined. This was followed by an independent samples *t* test which was used to test the differences between general and special education teachers' mean for each variable. The intention was to look at the scores in both groups to ascertain if there was a statistical significance between pre and post co-teaching.

This chapter also included interviews conducted and the major themes that were developed. The qualitative portion included interviews that were conducted in person or via the telephone. Ten questions with follow up questions to clarify were asked of each of the 16 participants.

The purpose of the sequential data collection was to allow the qualitative data from phase 2 to illuminate the phase 1 results. As such, the results from each phase were presented in separate phases. In the next chapter, the results from both phases are integrated into the findings and interpretations in order to provide an overview of teachers' perceptions of their instruction of students with disabilities within a general education classroom.

Chapter 5 - Conclusions

Introduction

As co-teaching has become a prevalent method of providing instruction to students with disabilities in general education classrooms (Friend et al., 2010; Gurgur & Uzuner, 2010; Mastropieri et al., 2005; Austin, 2001), the beliefs of both general and special educators' efficacy to adequately instruct students with disabilities within those classrooms merits additional investigation. Few studies have involved the perceived efficacy of both special education and general education teachers to instruct students with disabilities in their role of co-teacher within a general education classroom (Scruggs et al., 2007). Furthermore, the investigation into the changes or lack thereof, in teachers' pedagogy after co-teaching, also is demanded as the increase in co-teaching is seen throughout the field (Friend et al., 2010).

This mixed method study focused on the impact of co-teaching on general and special educators. Guided by the social cognitive theory of self-efficacy, the study approached co-teachers' perceptions of their work pre and post a co-teaching experience. Using a survey and subsequent interviews this study analyzed the extent that co-teaching had upon the perceptions of teachers in their instruction of students with disabilities in a general education classroom.

This chapter will focus on the triangulation of the quantitative and qualitative data as it pertains to the research questions. Phase 1 survey results and the Phase 2 interview results are integrated in this chapter in order to illuminate the perceived efficacy of general and special educators as they reflect upon their experiences before and after co-teaching. The conclusions are

framed within the existing literature base on co-teaching and the theoretical foundation of the study. The limitations of the study are also addressed in this chapter. Finally, suggestions for future research are presented.

Main Conclusions Based on Integrating Quantitative and Qualitative Findings

The integration of the quantitative and qualitative findings yielded the following main conclusions:

1. Overall, co-teaching had a positive impact on both general and special education teachers' ability to teach students with disabilities; specifically in their ability to differentiate, meet academic goals and social goals.

2. According to the perceptions of both general and special educators, students with disabilities increased their social engagement while involved in a co-teaching setting.

3. After co-teaching, general educators' belief that all students benefited from being in a general education classroom increased. Special education teachers' perceptions did not significantly change.

4. Though both general and special education teachers perceived they were allotted more time to co-plan, it is still not of sufficient quality.

5. Even after co-teaching, special education teachers' role in the classroom is not clear.

6. Co-teaching may fill a need for increased instructional skills for both general and special educators.

Impact on Teaching

    Ability to Differentiate.

        The ability to differentiate, or adapt instruction to individual students, is one that has been noted in research as an area of improvement for general educators who have been found to rarely vary their instructional methods (Cramer et al., 2010; Magiera et al., 2005). Based on responses to the survey, results indicate that general education teachers' perception of their abilities to differentiate instruction improved from prior to co-teaching to after co-teaching. This was supported by qualitative results found in interviews with general education teachers. A high school teacher stated that co-teaching, "gives me more strategies with all students". Special education teachers' survey results also demonstrated that they perceived they were better equipped to differentiate after co-teaching. Teachers in both roles observed their partner and increased their instructive repertoire. As one special education middle school teacher stated, "We learn from each other." The need to differentiate is critical to the classrooms of today in which children with many needs are now instructed (Nichols et al., 2010). For example, students with a learning disability are often not actively engaged in the learning process independently (Lewis & Doorlag, 2011). It is this challenge that necessitates the skills to individualize instruction.

    Effective Meeting Academic Goals.

        School districts are adopting co-teaching as a method of instruction both to fulfill the IDEA 2004 legislation and provide an appropriate education to students with disabilities (Magiera, Smith, Zigmond, & Gebauer, 2005). The students with disabilities are placed in a

general education classroom; both a special and general education teacher is assigned to the

classroom in which they are responsible for the instruction of the classroom as a whole. In this

study, survey results indicated both general and special education teachers perceived that they

were better able to meet students with disabilities' academic goals within a general education

classroom after co-teaching. These results are a key element of this study. As Carpenter and

Dyal (2007) discussed, even with extra support, students with disabilities may not receive an

appropriate education within a general education classroom. This is due to the need of students

with disabilities generally requiring instructional and curricular accommodations individualized

to the student in order to be successful in school (van Hover & Yeager, 2003).

The perception that co-teaching improved their ability to assist students with disabilities

to meet their academic goals also emerged in the interviews with teachers. An elementary

general education teacher with over 11 years of experience discussed the period before she co-

taught, "I was always frightened that I wasn't doing enough or the right thing [with students with

disabilities]". A high school general education teacher considered her perceived lack of formal

training to work with students with disabilities and the benefit of co-teaching, "I don't think I

had the [formal] background to understand what I needed to do." This supports Scruggs and

Mastropieri's 1996 research synthesis which found approximately 70% of general education

teachers surveyed believed that they did not have sufficient time, training or resources to instruct

students with disabilities in their classrooms.

Co-teaching also improved special educators' perception of their ability to meet the goals

of their students within a general education classroom. An elementary special education teacher

remarked that co-teaching, "allows kids to get help when they need it [and not wait to see the

special education teacher later]." A high school special educator described her experiences

within various classrooms when she said, "The opportunity to be in [general education] classrooms on a daily basis has greatly increased my knowledge in different core subjects - especially algebra!" Co-teaching positively impacts special education teachers' ability to instruct students with disabilities' academic goals within general education classrooms, and therefore is meeting a need. As Greer and Meyen (2009) indicated, "Current preparation standards and practices may be insufficient for preparing special education teachers to effectively meet the academic needs of students with learning disabilities in content areas" (p. 196). The ability to instruct students with disabilities within a general education classroom is critical to students' success as eighty percent of students with disabilities spend most of their day in general education classrooms (NCES, 2012). If both general and special educators perceive that they are better equipped to instruct students with disabilities within a general education classroom, the social cognitive theory predicts that their high self-efficacy will support them in maintaining their drive to succeed in the instruction of these students (Bandura, 1994).

Effective Meeting Social Goals.

General and special educators agreed that there was an improvement in their perception of their ability to assist students to meet social goals during or after co-teaching. Students with a variety of impairments may experience social deficits requiring the need to work on social/emotional goals within the classroom (Lewis & Doorlag, 2011).   As a high school general education teacher noted, "students with disabilities develop better relationships with both peers and teachers [when in a co-taught classroom]." A middle school special education teacher also indicated that "their [students with disabilities] confidence goes up." This supports Austin's 2001 study of 139 co-teachers who held that co-teaching played a role in the acceptance of

differences and cooperation with teachers and peers, creating a more positive classroom environment.

Students Achieve Goals.

General education teachers perceive they are better equipped to assist students to achieve their goals in a general education classroom after co-teaching. One general education teachers expressed her thoughts, "It [co-teaching] gives the kids [with disabilities] the chance to prepare for high school and get the individual attention they need." After co-teaching, general educators believed they were better able to help students with disabilities achieve their IEP goals within their classroom. The achievement of these short and long term goals is a critical aspect in assisting students to become successful adults. An important step to becoming an independent person includes staying in school and graduating. However, if students are not achieving their goals they may feel defeated and drop out of school. The school dropout rate for students with a disability is twice that of general education students and of those, 36 percent are students with a learning disability (Blackorby & Wagner, 1996). When teachers are better equipped to assist students they may encouraged to stay in school.

Current policy frameworks suggest that all students be educated in inclusive settings (IDEA, 2004). The inclusion classroom contains a diverse group of students displaying a varying array of cognitive abilities, behavior issues, language skills and learning styles (Scott, Vitale, & Masten, 1998). The United States' changing demographics are reflected in the classroom and teachers find their students having more diverse needs (Fuchs, Fuchs, & Bishop, 1992). This creates challenges to classroom teachers as they work to meet the requirements of their students (Friend et al., 2010; Van Reusen, Shoho, & Barker, 2000). General education teachers' perceptions as to their ability to instruct students with a disability are crucial to the success of

this mandate. One high school teacher said that co-teaching has "helped me be aware of all kids, who struggle and I think it's helped me to be a lot more aware teacher."

Benefits of Co-Teaching.

    Engagement of Students.

    One statement asked teachers to consider their perceptions of the social engagement of students with disabilities with their non disabled peers before and after they co-taught. It was intended to determine teachers' observations of their students and their relationships in the classroom. Depending upon the individual student, relationships between disabled and non disabled children are often difficult. This is frequently the case of those diagnosed with ASD. In general, students with ASD have a difficult time with social relationships, so friendships and interactions with teachers may be challenging (Lewis & Doorlag, 2011). Consistent with Austin's (2001) study of co-teachers, there was a statistically significant increase for both general and special educators' pre and post co-teaching responses for this question; indicating that teachers perceived their students with disabilities were more engaged socially with their non disabled peers after co-teaching. This may positively affect the student's status with their peers and their social inclusion (Robertson et al., 2003). These thoughts were supported by interviews; as one middle school special education teacher described, the placement of students with disabilities into a co-teaching setting is a benefit. "It's important that the kids are in the environment where all the kids are" she said.

    All Benefit in the General Classroom.

    Teachers were asked to indicate their beliefs regarding whether all students benefit from being educated in a general education classroom. Only general education teachers' survey responses indicated an improvement after co-teaching. This was validated during interviews. For

example, one middle school teacher explained, "I believe that students with disabilities need to be exposed to the curriculum." These results support past research such as Robertson et al.'s, (2003) study of students with autism and their teachers and Villa et al.'s (2005) interviews with secondary school educators.

Special education teachers' survey and interview results did not agree with the general educators. This was also contrary to Austin's (2001) survey of co-teachers as this study indicates there remains concern from some special education teachers regarding their ability to provide appropriate education in the classroom. One middle school special education teacher told the story of a young boy, "who was wheelchair bound. He read at the 1st grade level [in the middle school]. [The general education teacher] and I realized that there was nothing we could do and he needed to be taken out." A high school special educator described a time when "inclusion wouldn't work in math class at the high school level. There was too much of a discrepancy of skills." Though these may be accurate assessments of the situations, it may be problematic in the long term, as"[t]he creation of learning environments conducive to development of cognitive skills rests heavily on the talents and self-efficacy of teachers" (Bandura, 1994, p. 10). Teachers who have a high perceived efficacy can motivate their students and enhance their development. In th4 framework of the self-efficacy theory, the doubts that some special educators have on the instruction of students with disabilities within a general education classroom may negatively impact their drive to succeed.

Co-Planning and Collaboration.

Ability to Communicate.

Co-teaching is a specific form of collaboration in which there is "a mutual effort to plan, implement, and evaluate the educational program for a given student" (Correa, et al., 2005, p. 5).

These critical aspects cannot occur without the co-teachers meeting on a regular basis to plan (Kohler-Evans, 2006). Based on the survey results in this study, both general and special educators indicated that there was improvement in their ability to communicate with their partner after co-teaching and an increase of planning time given by the administration. These advancements should expedite effective communication skills which are critical in a successful co-teaching team (Ploessl, Rock, Schoenfeld, & Blanks, 2010; Kohler-Evans, 2006; Walther-Thomas, Bryant, & Land, 1996). However, interviews illuminated further concerns on this subject expressed by special education teachers. They indicated that they did occasionally have planning time but the quality of it was potentially problematic. The depth of discussions are limited when as one special educator said, "We try to plan about once or week or as needed." Another teacher described an even less structured system when she said, "We don't have a common planning time. We try to grab a few minutes here, a few minutes there."

Adequate Time to Plan.

Quantitative results indicated that special education teachers perceived that there was an improvement in adequate planning time. Sufficient time to plan and meet together is one of the indicators of a positive co-teaching relationship. Teachers must have time to discuss and plan for common goals in which they are working towards for the benefit of the classroom (Brownell et al., 1997). However, a different message emerged from subsequent interviews with special educators. One high school special education teacher described her work with her co-teacher, "We try to plan together but it always doesn't work. So we'll say, 'you just do that'. And we go from there." This agrees with Dieker and Murawski (2003) as they too mentioned that there is not enough quality communication resulting in, "special educators being told moments before the class begins what is going to be taught that day" (p. 4).

In the same question general education teachers' quantitative responses indicated there was not an improvement in the time to plan. This was borne out in their interviews as well. They described multiple reasons for a lack of time to plan and their dissatisfaction. One elementary teacher said, "We are at opposite ends of the building, so we don't sit down as often as we should. A high school teacher says of her special education partner, "He says he doesn't have time to co-plan, so none is done." Though this study's results indicate that there seems to be a perception that teachers' time to collaborate increases as co-teaching occurs, based on interviews it appears that more is required.

Role of Teachers.

The element of co-planning is integral in successful co-teaching situations (Carter, Prater, Jackson, & Marchant, 2009). This is what often separates the role of a special education teacher from acting as a support team member (such as a paraprofessional) to the role of an instructional partner (Murawski & Lochner, 2011, Austin, 2001). Overall, there were few negative aspects to co-teaching as reflected in both the survey and interviews. Though it seems to contradict survey responses, one drawback that did surface may result from an in sufficient amount of planning and communication. Seven out of seven special education teachers interviewed mentioned some aspect of difficultly with their role in the co-taught classroom. One high school special education teacher with over 11 years of experience said, "At times I have felt like an overpaid paraprofessional. I have had the responsibility of creating worksheet copies, and running errands. I didn't get a master's degree to be an aide." This breakdown of the co-teaching role may occur for many reasons. Based on interviews from this study, a lack of communication and planning between the partners plays a role in the special education teachers' activities. If there is little or no advanced preparation, the teacher comes into the room without a clear plan for the

day, and may find that they are relegated to the role of general support staff (Weiss & Lloyd, 2003). This seems to contradict the results of the survey in which teachers indicated their ability to communicate with their partner had improved. It appears that though the perception of the time to meet has increased it remains not sufficient. Adequate collaboration was also reported as a key to success in a study by Villa et al., (2005) in which 20 secondary general and special educators were interviewed. One of their special educators echoed the sentiments of some of this study's teachers when he said, "My current responsibilities include being an enrollment clerk, the attendance police, the suspension agent and the crisis counselor when I really should be in the classroom teaching!" (p. 45).

Implications

The results of this quantitative and qualitative sequential research indicate that co-teaching positively impacts the perception of both general and special education teachers' ability to instruct students with disabilities within a general education classroom. Though there were a few differences in individual questions, as a whole, both general and special educators responded positively to co-teaching students within a general education classroom. IDEA (2004) has stipulated students are to be educated to the maximum extent possible with their non disabled peers; therefore, it is crucial that appropriate instruction takes place within those classrooms. The ability to differentiate instruction, to modify to specific needs of individuals, while considering the needs of the entire classroom is a key factor to success.

Brownell et al. (2010), contend that preservice preparation for both general and special educators is insufficient. The need for content knowledge is such that it is very difficult to train a special educator in all that is required for today's classroom. Instead, they assert, that recruiting highly qualified general educators to provide the appropriate education is a better alternative in meeting the needs of students with disabilities. They concede though, that significant changes would be required in order for this to occur. Based on this study's research, co-teaching may be one way in which general education teachers' capacity for providing appropriate education for students with disabilities may increase.

The special educator must know the characteristics of students with disabilities, instructional design and modification, a variety of instructional strategies and the core legal processes associated with special education (Sayeski, 2009) as well as the academic content being instructed. It is rare to find a special educator that is well versed in the required instructional strategies as well as knowledgeable about all content areas within their respective

building level (Brownell, Sindelar, Kiely, & Danielson, 2010). This is particularly apparent in the upper grades. Secondary special educators are often prepared in the knowledge of accommodations and learning differences but have limited content specific preparation (Dieker & Murawski, 2003). When they co-teach in a content class, such as math or science their knowledge of that subject increases and therefore their ability to assist more students. If, as indicated from this research, co-teaching has had a positive impact on special educators knowledge of content courses it may play an important role in the appropriate education of student with disabilities. This addresses one of the concerns raised by Mastropieri et al. (2005). Their contention was that specialized individualized instruction was not taking place in general education classrooms in which students with disabilities were placed. As a result of this research study, special educators indicate that co-teaching increases their knowledge base in content classes. If these teachers are more proficient in the classroom they will be able to contribute to the content of the daily lessons, allowing them to ensure that specially designed instruction is delivered to students with disabilities.

The ability to assist students in achieving their emotional and social goals is another unique aspect that co-teaching appears to positively effect. Many students with disabilities have emotional goals in addition to content goals. Estimates of the presence of social problems in students with learning disabilities range from 38 percent to 75 percent, and with about 2,800,000 children identified as learning disabled, it is a sizable number and the largest category of special education (Bryan et al., 2004). However, working on social skills is not a common focus of secondary (in particular) classrooms (Dieker & Murawski, 2003). The uses of general classroom-based interventions have had weak results. In 2004 Bryan et al., found that merely placing students with disabilities in a general education classroom did not increase their social

competence. However, if interventions address the specific needs of individual students and there is resulting class wide interventions then there have been more positive results. Both general and special educators find that the work of co-teachers and the presence of students with disabilities in the general classroom are improving the social goals of students.

The struggle with the role of each teacher within a co-taught class was also reflected in this study, supporting previous studies (Murawski & Lochner, 2011; Dieker, 2001). The nuances of the subject may be reflected in the mixed survey responses and interviews. It appears a lack of sufficient communication may be one reason. A need for more preservice education and professional development may also improve this issue as supported by Villa et al. (2005) and Austin (2001)

At question is the impact that co-teaching has upon teachers. If, as Bandera (1994) describes, "The first and most effective way of creating a strong sense of efficacy is through mastery experiences" (p. 2) then co-teaching appears to be a way of not only to observe but practice skills that are required in the classroom; and therefore increase teachers' sense of efficacy in the instruction of students with disabilities within a general education classroom.

The peer partnership of co-teaching is a powerful tool in the improvement of teachers' instruction of students with disabilities within a general education classroom. "The greater the assumed similarity, the more persuasive are the models' success and failures" (Bandera, 1994, p. 2). As the teachers work together on a daily basis the more closely the observer identifies with the model and the greater the impact on efficacy. Every day co-teachers are paired with a colleague with whom they can identify. Both bring unique areas of expertise in which they can learn from each other and increase their ability to instruct students with disabilities in a general education classroom.

Limitations

Several practical constraints were limitations of this study. One, due to difficulty accessing the population and the need for an adequate response rate, a true random sample of each subgroup was not possible. Their responses may not be representative of the population as a whole. Secondly, this study did not specify whether respondents who co-taught with more than one other teacher should complete the survey with regard to one co-teacher or attempt to generalize across multiple partners. Third, it asked teachers to reflect back before co-teaching. For some, that was within the last three years, for others it was more than five years ago. The format of this study required that teachers accurately recalled and reported self perceptions from the past. Their recollections may not be precise.

Future Research

  This study was intended to be an overview of the perceptions of general and special education teachers before and after co-teaching. Additional studies are needed on co-teaching and these recommendations offer potential areas for consideration for further meaningful study.

  1. To further study students with disabilities' achievement of academic and social goals within a co-taught classroom; including students and parents' perceptions.

  2. Look at the specific curricular modifications and adaptations occurring within the co-taught classroom.

  3. Study rate of achievement of the social/emotional goals of students with disabilities within a general education setting.

  4. Use control groups of general and special education teachers who have not co-taught to compare to those that co-taught.

  5. Instead of using exclusively self-report perceptions of efficacy use additional tools such as observations.

Summary

This mixed method research intended to determine the extent of any change in teachers' perceived efficacy after co-teaching. Results indicate that there is an increase in teachers' perception in their ability to instruct students with disabilities within the general education classroom. It appears that co-teaching may play a role in teachers' ability to provide the appropriate instruction to many students with disabilities in the general education classroom.

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Appendix A

IRB Approval

UNIVERSITY OF MICHIGAN
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Dearborn Institutional Review Board • 4901 Evergreen Rd., 118 SB, Dearborn, MI 48128 • phone (313)593-5468 • fax (313)593-0526

• irb-dearborn@umd.umich.edu

To: Peggy Sepetys

From:

Robert   Hymes

Cc:

Peggy   Sepetys

Belinda   Lazarus

Subject: Notice of Exemption for [HUM00064288]

SUBMISSION INFORMATION:
Title: Co-Teaching: To what Extent does it Change Teachers Perceived Efficacy in the Instruction of Students with Disabilities in a General Education Classroom?
Full Study Title (if applicable): Co-Teaching: To what Extent does it Change Teachers Perceived Efficacy in the Instruction of Students with Disabilities in a General Education Classroom?
Study eResearch ID: HUM00064288
Date of this Notification from IRB: 11/14/2012
Date of IRB Exempt Determination: 11/14/2012
UM Federalwide Assurance: FWA00004969 expiring on 6/13/2014
OHRP IRB Registration Number(s): IRB00000247

IRB EXEMPTION STATUS:
The IRB Dearborn has reviewed the study referenced above and determined that, as currently described, it is exempt from ongoing IRB review, per the following federal exemption category:

EXEMPTION #1 of the 45 CFR 46.101.(b):
Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

Note that the study is considered exempt as long as any changes to the use of human subjects (including their data) remain within the scope of the exemption category above. Any proposed changes that may exceed the scope of this category, or the approval conditions of any other non-IRB reviewing committees, must be submitted as an amendment through eResearch.
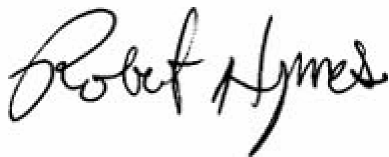
Although an exemption determination eliminates the need for ongoing IRB review and approval, you still have an obligation to understand and abide by generally accepted principles of responsible and ethical conduct of research. Examples of these principles can be found in the Belmont Report as well as in guidance from professional societies and scientific organizations.

SUBMITTING AMENDMENTS VIA eRESEARCH:
You can access the online forms for amendments in the eResearch workspace for this exempt study, referenced above.

ACCESSING EXEMPT STUDIES IN eRESEARCH:
Click the "Exempt and Not Regulated" tab in your eResearch home workspace to access this exempt study.

Robert Hymes
Chair, IRB Dearborn

Appendix B

School District Consent Letter

October 22, 2012

Dear _____ School District,

I am a doctoral candidate at the University of Michigan – Dearborn with a concentration in the area of special education. I am conducting research regarding the perceptions of general and special education teachers' ability to instruct students with disabilities in a general education classroom, in particular after they have co-taught.

I have spent much of the last twenty years as a special education teacher and teacher consultant so I am very familiar with the issues of teachers today. It is my desire to make a positive impact on the field of education through the use of research involving current teachers.

This study will involve a ten minute online survey of participants. A few will also be randomly selected to participate in a follow up interview, though only if they desire to do so. I am seeking pairs of teachers who have co-taught or are currently co-teaching. I hope to gain insight into the impact that the time spent working together in a co-teaching setting has an effect on both the general and special education teachers as well as their students.

If you agree to your teachers' participation, a preliminary survey will be emailed in the next few weeks. This will confirm the co-teaching requirements for this study will be met. Subsequently, in early January, the survey will be emailed to each teacher.   Teachers chosen for a brief interview will be contacted via email to make further arrangements. Finally, I will be happy to share the results of this study with you and your district at its conclusion.

Thank you for your consideration of this project. If you have any questions please feel free to contact me at psepetys@umd.umich.edu or by telephone at 734.XXX.XXXX.

Sincerely,

Peggy Sepetys

Appendix C

Co-Teaching Research Introduction Letter

You are being invited to participate in a research study about regarding the perceptions of general and special education teachers' ability to instruct students with disabilities in a general education classroom, in particular after they have co-taught.

This study is being conducted by Peggy Sepetys and Dr. Belinda Lazarus, from the Department of Education - Special Education at the University of Michigan – Dearborn. This study is part of dissertation project.

You were selected as a possible participant in this study because you have been a co-teacher or currently are a co-teacher.

There are no known risks if you decide to participate in this research study. There are no costs to you for participating in the study. The information you provide will allow the researcher to gain insight into the impact that the time spent co-teaching has made on teachers and their students. The questionnaire will take about 10 minutes to complete. The information collected may not benefit you directly, but the information learned in this study should provide more general benefits.

This survey is anonymous in that your name and school will not be used in any research now or in the future. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study. Individuals from the Institutional Review Board may inspect these records. Should the data be published, no individual information will be disclosed.

Your participation in this study is voluntary. By completing and sending the survey via the internet you are voluntarily agreeing to participate. You are free to decline to answer any particular question you do not wish to answer for any reason.

If you have any questions about the study, please contact Peggy Sepetys at psepetys@umd.umich.edu or Dr. Belinda Lazarus, at blazarus@umd.umich.edu.

Should you have questions regarding your rights as a research participant, or wish to obtain information, ask questions, or discuss concerns with someone other than the researcher(s), please contact Debra Schneider in the IRB Administration Office, Office of Research and Sponsored

Programs, 1055 Administration Building, The University of Michigan-Dearborn, Evergreen Rd., Dearborn, MI 48128-2406, email: irb-dearborn@umd.umich.edu or phone: 313-593-5468.

If you agree to participate in this study, please sign your name in the space provided below; you will be given a copy of this consent form for you to keep. If you would like to learn the findings of this study, please email me at (your email) and I will be happy to forward that information to you. Thank you for your participation in this study.

ADULT SUBJECT OF RESEARCH SIGNATURE LINE

_____   _____
Printed Name   Consenting signature   Date

Appendix D

Preliminary Co-Teaching Survey

Thank you for agreeing to participate in the upcoming survey on co-teaching!   Please fill out the five statements below.   If you meet the necessary criteria your survey will be emailed to you in the next few weeks.

What is your role as a co-teacher?

❍ General Education Teacher
❍ Special Education Teacher
❍ Other _____

You and your co-teacher work together daily in the same space.

❍ Yes
❍ No

There is an element of planning to your co-teaching.

❍ Yes
❍ No

The classroom in which you co-teach consists of both students with and without disabilities.

❍ Yes
❍ No

How long have you co-taught together?

❍ Less than one semester
❍ One semester
❍ One school year
❍ Two or more school years

Thank you very much!

Appendix E

Co-Teaching Survey

Thank you for taking the time to complete this survey! There are 24 multiple choice. When you have completed the survey it will automatically be returned to the researcher. Upon receipt of the survey you will be sent a Starbucks card to thank you again for your time.

.

Once again, thank you!

For the next 12 statements please consider in the context of   *BEFORE CO-TEACHING*

I was able to effectively communicate my classroom expectations to my future co-teacher.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Neither Agree nor Disagree
- ❍ Agree
- ❍ Strongly Agree

School administration provided adequate planning time for my co-teacher and me.

- ❍ Strongly Disagree
- ❍ Disagree
- ❍ Neither Agree nor Disagree
- ❍ Agree
- ❍ Strongly Agree

I believed I'd be effective at assisting students with disabilities to meet their social/emotional IEP goals within the general education classroom.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

I was effective assisting students with disabilities to meet their academic IEP goals within the general education classroom

- ❑ Strongly Disagree
- ❑ Disagree
- ❑ Neither Agree nor Disagree
- ❑ Agree
- ❑ Strongly Agree

I was able to effectively differentiate instruction for all students

- ❑ Strongly Disagree
- ❑ Disagree
- ❑ Neither Agree nor Disagree
- ❑ Agree
- ❑ Strongly Agree

I was able to effectively manage individual behavior needs within a classroom.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

My future co-teacher and I had adequate time to plan together.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

I was able to plan for individual needs for students in my classroom.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

I was confident of my ability to instruct students in the content area of my co-teaching.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

During planning of instruction I was open to others' ideas and thoughts regarding teaching.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

I believed students with disabilities should be taught in a general education classroom.

❍ Strongly Disagree
❍ Disagree
❍ Neither Agree nor Disagree
❍ Agree
❍ Strongly Agree

I believed that all students with disabilities benefit from being in a general education classrooms.

❍ Strongly Disagree
❍ Disagree
❍ Neither Agree nor Disagree
❍ Agree
❍ Strongly Agree

For the next 12 statements please consider in the context of   *AFTER CO-TEACHING*

I was effective at communicating my classroom expectations to my partner.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

I am able to assist students with disabilities to meet their social/emotional IEP goals within the general education classroom.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

I am able to assist students with disabilities to meet their academic IEP goals within the general education classroom.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

I am able to manage individual behavioral needs within a general education classroom.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

My co-teaching and I have adequate time plan together.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

I am able to plan for individual needs for students in our co-taught classroom.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

I am confident in my ability to instruct students in the content area of my co-teaching assignment.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

During planning periods I am open to others' ideas and thoughts regarding teaching.

- ○ Strongly Disagree
- ○ Disagree
- ○ Neither Agree nor Disagree
- ○ Agree
- ○ Strongly Agree

I am able to effectively differentiate instruction for all students.

- ❑ Strongly Disagree
- ❑ Disagree
- ❑ Neither Agree nor Disagree
- ❑ Agree
- ❑ Strongly Agree

I believe that students with disabilities should be taught in a general education classroom.

- ⭕ Strongly Disagree
- ⭕ Disagree
- ⭕ Neither Agree nor Disagree
- ⭕ Agree
- ⭕ Strongly Agree

I believe that all students with disabilities can benefit from being included in general education classrooms.

- ⭕ Strongly Disagree
- ⭕ Disagree
- ⭕ Neither Agree nor Disagree
- ⭕ Agree
- ⭕ Strongly Agree

School administration provides adequate planning time for my co-teacher and me.

- ⭕ Strongly Disagree
- ⭕ Disagree
- ⭕ Neither Agree nor Disagree
- ⭕ Agree
- ⭕ Strongly Agree

What is your role as a co-teacher.

- ⭕ Special Education Teacher
- ⭕ General Education Teacher

Appendix F

Interview Questions

Name:

Date:

Location:

Introduction:

Thanks so much for taking time to talk with me! It would help me a lot if I could record this conversation. Would that be okay with you?   yes _____ no _____

I am hoping to get your thoughts on co-teaching. It is very important to have teachers experiences and perceptions on methods used in education. I hope this research - with your ideas - will help understand how we can make instruction better for all students.

Survey Questions

1. How did you begin co-teaching?

        --Assigned, volunteered?

        --Describe your relationship with your co-teacher.

        --Was the relationship important in your co-teaching partnership? Examples?

2. Describe the role you played in the co-teaching assignment.

        --What type of co-teaching did you most often engage in? One teach, one assist, etc.?

3. Describe the students in the classroom(s).

   --Was there any specific placement of students based on the co-teaching?

   --Were students placed and then co-teaching instigated? or visa versa?

4. Where and when did you and your co-teacher plan?

5. How do you think co-teaching affects students?

   --Special Education?

   ---General Education?

6. What are the benefits to co-teaching? Examples?

7. What are drawbacks to co-teaching? Examples?

8. Did co-teaching have any impact on *your* teaching?   Examples?

9. Can you recall any specific instances in which might shed more information on your

experiences with co-teaching?

10. What kind of support did you get from the administration regarding co-teaching? Did you

need anything different to be more successful?